health

Victorian Population Health Survey 2010

Selected findings

State Government Victoria

Department of Health

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Abbreviations and symbols

$	Australian dollars
%	Per cent
Kg/m^2	Kilograms per square metre
95% CI	95 per cent confidence interval
LL/UL 95% CI	Lower/Upper Limit of 95% Confidence Interval
ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
BMI	Body mass index
CATI	Computer-assisted telephone interviews
DK/refused	Do not know or refused to say
DoHA	Australian Government Department of Health and Ageing
K10	Kessler Psychological Distress Scale
LGA	Local Government Area
TAFE	Technical and Further Education
NHMRC	National Health and Medical Research Council
RSE	Relative Standard Error
WHO	World Health Organization

Introduction

About the survey

The Victorian Population Health Survey is an important component of the population health surveillance capacity of the Department of Health. The annual survey series is an ongoing source of quality information on the health of Victorians.

The aim of the survey is to provide quality, timely indicators of population health that directly apply to evidence-based policy development and strategic planning across the department and the wider community. The survey is based on core question modules that are critical to informing decisions about public health priorities. It fills a significant void in the accessible data needed to ensure public health programs are relevant and responsive to current and emerging health issues.

About this report

The first chapter, 'Health and lifestyle', contains information on the prevalence of major risk-taking behaviours across the Victorian population, including the prevalence of smoking, fruit and vegetable intake, alcohol consumption, levels of physical activity and selected health and screening checks. This information is vital for targeting public health interventions and evaluating outcomes.

The report includes a chapter on self-reporting on health and selected chronic diseases, as well as separate chapters on body weight, asthma and diabetes, which are the subject of public health programs in Victoria and nationwide. These data complement the department's Victorian Burden of Disease Study and Victorian Ambulatory Care Sensitive Conditions Study, and identify aspects of prevention that are amenable to public health intervention.

The report also contains a chapter on mental health, examining levels of psychological distress, the prevalence of depression and anxiety, and whether a person sought help from a professional for a mental health-related problem in the preceding year.

Last are a chapter covering social disparities in health, which identifies health differences between selected social groups in Victoria, and a chapter titled 'Connections with others', which presents information on levels of social support, community participation, social attitudes and social capital.

How to interpret a table

- *Time trends tables*: estimates are presented for each year in which the survey was run where exactly the same question has been asked each time. Where a question about a health topic has changed over time, the period reported reflects the period from when the question change occurred. Ordinary least squares regression was used to test trends over time.
- *Other tables*: individual estimates have been compared to the total Victorian estimate. Where subgroups of the population are presented (for example, males and females), the estimates have been compared to the total Victorian estimate for that population subgroup (all Victorian males, all Victorian females). The significance of differences in estimates has been determined by comparing the 95 per cent confidence intervals of the estimates.
- With the exception of age specific rates, all other estimates have been age standardised throughout the report to eliminate the effect that differences in age structure may have on estimates from different population groups.
- The reliability of estimates has been determined using relative standard errors, and the tables and figures indicate the degree of reliability.

Summary of findings

Fruit intake
Almost half (49.9 per cent) of all persons surveyed met the recommended minimum daily intake levels for fruit (three or more serves for those aged 18 years and two or more serves for those aged 19 years and over).

Vegetable intake
Less than one in 10 adults (7.7 per cent) met the recommended minimum daily intake for vegetables (four or more serves for those aged 18 years and five or more serves for those aged 19 years and over).

Alcohol intake
More than one in seven males (13.2 per cent) and 6.5 per cent of females consumed alcohol weekly at levels that put them at short-term risk of alcohol-related harm. Almost one-quarter (23.4 per cent) of males and more than one in 5 females (20.3 per cent) consumed alcohol at least once a year at levels that put them at short-term risk of alcohol-related harm.

Smoking
Less than one in five adults aged 18 years or over (16.8 per cent) were current smokers in 2010, down from 22.1 per cent in 2003.

Physical activity
The proportion of persons undertaking adequate physical activity (measured in both sufficient time and sessions) to meet the national guidelines, was 59.1 per cent in 2010. There has not been any significant change in the proportion of males or females who did or did not participate in sufficient physical activity between 2005 and 2010.

Self-reported health
The proportion of persons who reported their health as excellent, very good or good was 83.0 per cent in 2010. The proportion of persons who reported their health as fair or poor was 16.7 per cent. The proportion of persons reporting excellent or very good health and fair or poor health did not change between 2005 and 2010.

Selected health conditions
In 2010, the proportion of adults who reported having ever been diagnosed by a doctor with heart disease was 6.7 per cent, stroke was 2.1 per cent, cancer was 7.1 per cent, osteoporosis was 5.0 per cent, and arthritis was 18.8 per cent.

Body weight
Approximately half (50.1 per cent) of all persons aged 18 years and over were overweight or obese, with 33.2 per cent overweight and 16.9 per cent obese. The prevalence of overweight did not change significantly between 2003 and 2010, however the prevalence of obesity increased from 2003 to 2010.

Asthma
Approximately one in five persons (20.8 per cent) reported having ever been diagnosed by a doctor with asthma and 9.3 per cent reported having experienced asthma symptoms in the last 12 months.

Diabetes
The prevalence of type 2 diabetes was 4.8 per cent for all Victorians in 2010. The prevalence of type 2 diabetes in males and females significantly increased between 2003 and 2010.

Mental health
The majority of Victorians aged 18 years and over (64.4 per cent) reported low levels of psychological distress in the four weeks preceding the survey, with a further 21.7 per cent reporting moderate levels. High and very high levels of psychological distress were reported

by 7.9 per cent and 2.6 per cent of persons, respectively. More than one in five (20.1 per cent) persons had ever been diagnosed by a doctor with depression and/or anxiety.

Health checks and screening

In 2010, more than eight in 10 (80.4 per cent) of persons surveyed reported having had their blood pressure checked, more than half (58.5 per cent) reported having had a blood cholesterol test and more than half (54.2 per cent) reported having had a blood glucose test, in the past two years.

More than a third (36.5 per cent) of persons aged 50 years and over reported having had a test to detect bowel cancer in the two years preceding the survey.

Connections with others

In 2010, almost a third of all persons aged 18 years and over (32.1 per cent) reported having helped out a local group as a volunteer and more than half (54.5 per cent) had attended a local community event in the past six months. One in 10 persons (9.2 per cent) reported they had attended a support group meeting in the past two years. Most persons could get help from friends, family or neighbours when needed.

Almost three out of four persons (75.2 per cent) felt multiculturalism at least sometimes made life in their area better, 82.2 per cent felt valued by society at least sometimes and 72.5 per cent felt they had an opportunity to have a say on issues that were important to them at least sometimes.

More than one in four persons (27.2 per cent) was a member of a sports group, over one in five (20.4 per cent) was a member of a professional group or academic society, almost one in six (15.9 per cent) belonged to a church group and more than one in 10 (11.5 per cent) was a member of a school group. Almost one in five persons (17.5 per cent) was a member of a community or other action group.

Social disparities in health

Socioeconomic gradients were observed in the prevalence of fair or poor self-reported health status, high and very high levels of psychological distress, depression and/or anxiety, smoking, abstinence from alcohol consumption, insufficient fruit consumption and obesity, where the prevalence decreased with increasing total annual household income. No socioeconomic gradients were observed in the prevalence of type 2 diabetes, being at long-term risk of alcohol-related harm, physical activity or inadequate vegetable consumption. By contrast, there were reverse socioeconomic gradients in the prevalence of overweight and being at short-term risk of alcohol-related harm where the prevalence increased with increasing total annual household income.

1. Methods

1.1 Background

Population health surveys based on computer-assisted telephone interviews (CATI) are used to collect key population health surveillance data because they provide time series data, collection procedures that are acceptable to respondents, an adequate sample size, use current technology and provide quality data (especially through greater supervision of interviewers, computer data entry and question sequencing). Further, they allow for data collection that is timely, cost-effective (especially in rural and metropolitan areas) and adaptable to changing and emerging information needs. CATI surveys also fill strategic information gaps–that is, they can be used to gather information not available from other sources–and provide data for further analysis and interpretation.

1.2 Method

The Victorian Population Health Survey 2010 followed a method developed over several years to collect relevant, timely and valid health information for policy, planning and decision making. The survey team administered CATI on a representative sample of persons aged 18 years and over who resided in private dwellings in Victoria. The Department of Health Human Research Ethics Committee approved the survey method and questionnaire content.

The department outsourced the fieldwork data collection to a market research organisation, which department staff supervised. All data were self-reported and stored directly in the CATI system.

1.3 Stratification

There are five rural and three metropolitan Department of Health regions in Victoria. The survey sample was therefore stratified by the 8 Department of Health regions in 2010. The total sample achieved was 7,535 completed interviews, including 192 (2.5 per cent) in languages other than English.

1.4 Sampling frame

Previous VPHS surveys used a 'list assisted' from of random digit dialling (RDD). While list-assisted RDD approaches have provided a good contemporary coverage of households with a landline telephone connection, they tend to under-represent phone numbers in new exchanges and generate a relatively high proportion of non-working telephone numbers which leads to some loss in fieldwork efficiency. Therefore, an exchange-based approach to RDD was employed for the first time in 2010, using a commercial list provider to provide the RDD landline telephone sample.

The starting point of the exchange-based approach is the 'number ranges' identified in the Australian Communications and Media Authority (ACMA) Numbering Plan (not a directory listing). Numbers within each number range are systematically tested and assigned a status of 'working' or 'disconnected' status to build up a pool of 'working' numbers that is representative of the actual distribution of working landline numbers across all number ranges.

1.4.1 Sample generation

RDD was used to generate a sample of telephone numbers that formed the household sample for CATI. All residential households with land-line telephone connections were considered in-scope for the survey. A telephonic mode of survey delivery excludes various population groups, such as people who are homeless or itinerant, people in hospitals or

institutions, the frail and aged, and people with disabilities who cannot participate in an interview.

1.5 Data collection

Almost two-thirds of all completed interviews were achieved within the first three calls. This proportion is consistent with national experience on similar surveys.

1.6 Call routine

The algorithm spreads call attempts over different times of day and days of the week, with up to six calls to establish contact with the household and a further nine calls to achieve an interview with the selected person in the household (fifteen calls in total). Other features of the call regime included:

- Call initiation on weekday evenings and weekends only (since these are proven to be the best times to establish initial contact with households)
- Appointments made for any time the call centre was operational, and
- Appointments set for five day's time, after leaving the first answering machine message, and eight day's time, after leaving the second answering machine message.

Interviewing across all DH regions was progressed equitably over the entire fieldwork period, with a view to spreading any bias resulting from seasonal or environmental factors (rather than e.g. completing all metropolitan interviewing in the first half of the fieldwork period, then all regional interviewing in the second half). After establishing contact, interviewers could make calls, by appointment, outside the time block hours. After contacting a household, an interviewer would select for interview the person aged 18 years and over with the most recent birthday.

The Department operated a survey hotline number during business hours throughout the data collection period to help establish survey bona fides and address sample member queries about the survey or survey process.

1.7 Interviewing in languages other than English

Interviews were conducted in eight community languages. As for previous surveys in the series, the department provided translated survey questionnaires in Italian, Greek, Mandarin, Cantonese, Vietnamese, Arabic, Turkish and Serbo-Croatian, with a view to achieving a more representative sample in those areas with a relatively high proportion of speakers of these languages. CATI interviewers were recruited to undertake the interviews in these other languages as required.

1.8 Fieldwork period

The average interview length was 20.4 minutes and interviewing was conducted from 17 May 2010 to 19 July 2010.

1.9 Participation

The participation rate, defined as the proportion of households where contact was made and an interview was then completed, was 73.3 per cent. The participation rate was similar in the metropolitan (71.4 per cent) and rural regions (75.7 per cent). However, there was some variation in the final participation rate by Department of Health region, ranging from 66.7 per cent in North and West Metropolitan Region, to 77.7 per cent in Hume Region.

1.10 Weighting

The survey data was weighted to reflect:
(i) The probability of selection of the respondent within the household.
Although a single respondent was randomly selected from within a household, the size of any household can vary upwards from one person. To account for this variation, the project team treated each respondent as representing the whole household, so his or her weight factor included a multiplier of the number of persons in the household. Further, a household may have more than one telephone line (that is, land lines used primarily for contact with the household), which would increase that household's probability of selection over those households with only one telephone line. To ensure the probability of contacting any household was the same, the project team divided the weight factor by the number of telephone lines connected to the household.

The formula for the selection weight (sw) component:

$$sw = nah/npl$$

where:
nah = the number of adults aged 18 years or over in the household
npl = the number of telephone lines in the household.

(ii) The age/sex/geographic distribution of the population.
The project team applied a population benchmark (pbmark) component to ensure the adjusted sample distribution matched the population distribution for the combined cross-cells of age group and sex by Department of Health region. The categories used for each of the variables were:
• *Age group:* 18–24, 25–34, 35–44, 45–54, 55–64 and 65 years or over
• *Sex:* male, female
• *Geography:* 8 Department of Health regions

The *pbmark* component was calculated by dividing the population of each cross-cell by the sum of the selection weight components for all the respondents in the sample within that cross-cell. For each cross-cell, the formula for this component was:

$$pbmark_i = Ni/\sum swij$$

where:
i = the *i* th cross-cell
j = the *j* th person in the cross-cell
Ni = the population of the *i* th cross-cell
$\sum swij$ = the sum of selection weights for all respondents (1 to *j*) in the *i* th cross-cell.

Calculating the person weight to be applied

The project team assigned respondent records a weight factor (*pwt*) by multiplying the selection weight (*sw*) value by the population benchmark value (*pbmark*):

$$pwtij = swij * pbmarki$$

where:
i = the *i* th cross-cell
j = the *j* th person in the cross-cell.

1.11 Statistical analysis

The survey data was analysed using the Stata statistical software package (Version 10.1, StatCorp LP, College Station Texas).

1.11.1 Crude rates

A crude rate is an estimate of a proportion of a population that experiences a specific event over a specified period. It is calculated by dividing the number of events recorded for a given period by the number at risk of the event in the population. Crude rates (expressed as percentages) have been presented wherever estimates have been broken down by age group (age-specific rates). Crude rates are useful for service planning purposes as they indicate the absolute estimate of the indicator in question. However, when making comparisons of estimates over time, crude rates can be difficult to interpret because the age distribution of our population is changing as our population ages. If one does take into account the change in age distribution, any observed increases or decreases over time may just reflect the fact that an indicator, such as heart disease, is age-related. Therefore we use a statistical technique to take into account the effect of age so that any observed trends must be explained by factors other than age. This method is described below.

1.11.2 Age standardisation

The percentages presented in this report have been standardised, or adjusted for age. They are based on the direct method of standardization. This method adjusts for effects of differences in the age composition of different populations and allows for comparison between these populations. The direct age standardized percentages presented are based upon the weighted sum of age-specific (five-year age group) rates in the population. The weights that have been used in the calculation (the 'standard' population) are population ratios for five-year age groups derived from the estimated resident mid-year 2006 Victorian population.

1.11.3 Standard error

The standard error is a measure of the variation in an estimate, produced by sampling a population. The standard error can be used to calculate confidence intervals and relative standard errors, providing the likely range of the true value of an estimate and an indication of the reliability of an estimate.

1.11.4 Confidence intervals (95% CI)

A confidence interval is a computed interval with a given probability (for example, 95%) that a true value of a variable, such as a percentage, is contained within the interval. So, the confidence interval is the likely range of the true value for a percentage. Throughout the report, 95% confidence intervals have been included in tables and graphs.

95% confidence interval = point estimate ± (standard error × 1.96)

1.11.5 Statistical significance

The only trends and patterns in the data that are discussed in the report are statistically significant trends and patterns. Statistical significance provides an indication of how likely a result is due to chance. With the exception of time trends, significant differences between estimates were deemed to exist where confidence intervals for percentages did not overlap.

Ordinary least squares linear regression on the logarithms of age standardized percentages, was used to test for trends over time. If the 95 per cent confidence interval for the regression coefficient did not include the value 0, the trend was considered to be statistically significant.

The term 'significance' is used to denote statistical significance. It is not used to describe clinical significance, the relative importance of a particular finding, or the actual magnitude of difference between two estimates.

1.11.6 Relative standard error (RSE)

A relative standard error (RSE) provides an indication of the reliability of an estimate. Estimates with RSEs less than 25 per cent are generally regarded as 'reliable' for general use. The percentages presented in tables and graphs in this report have RSEs less than 25 per cent, unless otherwise stated. Rates that have an RSE between 25 and 50 per cent have been marked with an asterisk (*) and should be interpreted with caution. For the purposes of this report, percentages with RSEs over 50 per cent were not considered reliable estimates and have not been presented. A double asterisk (**) has been included in tables and graphs

where the percentage would otherwise appear, indicating the relevant RSE was greater than 50 per cent.

Relative Standard Error (%) = Standard error/ Point estimate × 100

1.11.7 Testing for trends across time

Ordinary least squares linear regression was performed on the logarithms of the directly standardized rates, to test for trends across time. If the 95% CI for the regression coefficient did not include the value 0, then the trend was considered to be statistically significant. Only data that were collected in an identical manner were included. Many indicators in the time series begin with the 2005 VPHS survey dataset as there were significant differences in the response options available in the surveys prior to 2005. This does however vary from indicator to indicator.

For various health conditions and some service access indicators, both crude and age-standardised rates are presented. Crude rates are useful for service planning purposes as long as it is understood that any observed trends may be entirely due to changes in the population age structure. Age standardised rates are useful as any observed trends may reflect significant changes due to factors other than changes in population age structure such as increasing incidence of the condition, or the effect of intervention measures or better methods of diagnosis.

1.12 Profile of survey respondents

Known population benchmarks for selected data items may be used to assess the representativeness of the sample. Table 1.1 shows estimates obtained from the survey over time. In 2010 the survey data indicate the following:

- Females were more likely than males to participate in the survey.
- Adults aged less than 65 years were less likely to participate than adults aged 65 years and over.
- The proportion of employed persons in the survey was over 50 per cent.

Table 1.1: Profile of respondents in the Victorian Population Health Survey, 2010

Selected characteristics	Benchmark data (%)	Survey outcome (%)	Weighted survey outcome (%)	95% confidence interval	
				Lower limit	Upper limit
Sex[i]					
Male	49.1	38.0	48.9	48.1	49.8
Female	50.9	62.0	51.1	50.2	51.9
Age group (years)[i]					
18-24	12.8	4.7	12.9	12.2	13.7
25-34	18.4	9.4	18.4	17.6	19.2
35-44	18.7	17.0	19.3	18.7	20.0
45-54	17.6	19.6	17.8	17.2	18.4
55-64	14.6	21.3	14.1	13.7	14.6
65+	18.0	28.0	17.5	17.0	18.0
Employment status[ii]					
Employed	65.3	51.4	59.9	59.1	60.7
Unemployed	5.4	2.8	3.6	3.3	4.0
Not in the labour force	29.3	45.0	35.7	34.9	36.5

i Service Planning, Department of Health, 2009, State Government of Victoria.

ii ABS June 2010. Benchmark figures apply to persons aged 15 years or over.

2. Health and lifestyle

A range of lifestyle behaviours influence the health status and health risk profile of individuals. Lifestyle related risk factors contribute significantly to the burden of disease in Victoria, influencing the onset, maintenance and prognosis of a variety of health conditions and their complications. The risk factors associated with health and lifestyle behaviours are largely avoidable or modifiable, providing considerable scope for health gain. This section presents information on lifestyle behaviours that influence health, including intake of fruit and vegetables, alcohol consumption, tobacco use and physical activity, as well as participation in health screening programs and eye checks.

Survey results

Fruit and vegetable consumption

- Most adult Victorians (74.9 per cent) consumed one to three serves of vegetables per day. Almost eight in 10 (79.1 per cent) males and seven in 10 (70.9 per cent) females consumed one to three serves of vegetables per day.
- Almost twice as many females (9.7 per cent) compared with males (5.0 per cent) consumed five or more serves of vegetables per day.
- There were no differences in the daily vegetable consumption of males and females who resided in the rural and metropolitan regions of Victoria.
- A higher proportion of males who resided in the Loddon Mallee Region (10.2 per cent) consumed five or more serves of vegetables a day, compared with all Victorian males (5.0 per cent).
- A higher proportion of females who resided in the North and West Metropolitan Region (7.5 per cent) consumed no vegetables or less than one serve of vegetables per day, compared with all Victorian females (4.2 per cent).
- Over one in two persons (50.5 per cent) consumed two or more serves of fruit per day. A similar proportion of females (21.6 per cent) and males (18.4 per cent) consumed three or more serves per day.
- A higher proportion of males (16.0 per cent) reported consuming no fruit or less than one serve of fruit intake daily, compared with their female (11.3 per cent) counterparts.
- The proportion of males and females reporting that they consumed three or more serves of fruit a day was similar between the metropolitan and rural regions of Victoria.
- Less than one in 10 persons (7.7 per cent) met the guidelines for daily vegetable consumption.
- A higher proportion of females (10.0 per cent) compared with males (5.2 per cent) met the guidelines for daily vegetable consumption.
- Almost half (49.9 per cent) of adult Victorians met the guidelines for fruit consumption.
- A higher proportion of females (54.5 per cent) met the guidelines for fruit consumption compared with their male (45.1 per cent) counterparts.
- A higher proportion of females (7.2 per cent) met both guidelines for fruit and vegetable consumption compared with their male (3.5 per cent) counterparts.

- The proportion of males and females who did or did not meet the guidelines for fruit, vegetable, or both fruit and vegetable consumption remained unchanged between 2003 and 2010.

Alcohol consumption

Short-term risk

- More than half of all adult males (51.9 per cent) and 38.2 per cent of adult females consumed sufficient alcohol on an occasion in the past year that put them at short-term risk of alcohol-related harm.
- More than twice as many males (13.2 per cent of males) consumed alcohol at least weekly that put them at risk of short-term alcohol-related harm, compared with their female counterparts (6.5 per cent).
- There were no regional differences between females. However, a significantly higher proportion of males who resided in rural Victoria (61.1 per cent) consumed alcohol at levels that put them at short-term risk of alcohol-related harm compared with metropolitan males (48.9 per cent) and all Victorian males (51.9 per cent).

Abstainers

- Less than one in five Victorians (18.9 per cent) had abstained from alcohol consumption in the past 12 months.
- A higher proportion of females (22.6 per cent) than males (14.7 per cent) had abstained from alcohol consumption in the past 12 months.

Long-term risk

- Most adults (77.0 per cent) were at low risk of long-term alcohol-related harm, while 3.0 per cent of females and 3.3 per cent of males consumed alcohol at levels that put them at risk of long-term alcohol-related harm (based on the 2001 National Health and Medical Research Council NHMRC guidelines).
- A higher proportion of males in Grampians Region (8.6 per cent) and rural Victoria overall (5.6 per cent) were at risk of long-term alcohol-related harm compared with all Victorian males (3.3 per cent).
- Males and females at risk of long-term alcohol-related harm were more likely to have very high levels of psychological distress and/or to be current smokers.
- The proportions of males and females at long-term risk of alcohol-related harm remained unchanged between 2003 and 2010.

Smoking

- Almost one-sixth (16.8 per cent) of Victorians, aged 18 years and over, were current smokers. On average, less than one in five males (17.8 per cent) in Victoria reported that they smoked daily or occasionally, compared with 15.8 per cent of females.
- Males aged 25–34 years were found to have the highest prevalence of current smoking, at 23.9 per cent. For females, the highest prevalence of current smoking was in the 18-24 years age group, at 21.7 per cent.
- The proportion of males and females who were current smokers was similar for the rural and metropolitan areas of Victoria.
- Grampians Region had a higher proportion of females who were current smokers (22.3 per cent) compared with all Victorian females (15.8 per cent).
- There was a significant decline in the proportion of males, females and persons who were current smokers between 2003 and 2010.

Physical activity

- Six in 10 persons (59.1 per cent) reported undertaking sufficient levels of physical activity to meet the national guidelines (DoHA 1999).
- There were no significant differences between the sexes, overall and at any age, in the proportion who undertook sufficient physical activity.
- A higher proportion of younger persons, aged 18-44 years, undertook sufficient physical activity compared with older persons aged 55 years and over.

- Males (12.9 per cent) and females (13.6 per cent) aged 65 years and over, were significantly more likely to be sedentary, compared with all males (6.2 per cent) and all females (6.2 per cent).
- There were no regional differences in males, with the exception that a higher proportion of males who resided in Grampians Region (14.0 per cent) were sedentary compared with all rural males (6.9 per cent), all Victorian males (6.2 per cent), and their female counterparts (6.2 per cent).
- There were no regional differences in females, with the exception that a lower proportion of females who resided in Barwon-South Western Region (3.9 per cent) were sedentary compared with all Victorian females (6.2 per cent).
- There was no significant change in the proportion of males or females who did or did not meet the Australian guidelines for physical activity between 2005 and 2010.
- Males and females who did sufficient physical activity were more likely to also meet the guidelines for vegetable and/or fruit consumption and report being in excellent or very good health.
- More than half (50.1 per cent) of employed males and more than two out of three employed females (69.7 per cent) reported mostly sitting or standing at work.
- Less than two in 10 employed females (19.2 per cent) and 15.9 per cent of employed males reported mostly walking at work.
- Almost two in 10 employed males (17.8 per cent) and less than one in 10 employed females (8.5 per cent) reported mostly heavy labour or physically demanding work and in every age, except those aged 65 years and over, there was a higher proportion of males compared with females who reported physically demanding work.
- There was a higher proportion of employed males aged 18-24 years (31.2 per cent), compared with all ages (17.8 per cent) who reported being engaged in mostly heavy labour or physically demanding work.
- The work activities of over half of employed males (52.4 per cent) who resided in the metropolitan regions involved mostly sitting, compared with approximately one-third of employed males (32.5 per cent) who resided in the rural regions.
- There were higher proportions of employed males from Gippsland Region (31.2 per cent), Grampians Region (28.9 per cent), Loddon Mallee Region (33.0 per cent) and the rural regions overall (30.7 per cent) who reported mostly heavy labour or physically demanding work, compared with those who resided in the metropolitan regions (13.0 per cent) and Victoria overall (17.8 per cent).

Eye health

Sun protective behaviours

- When out in the sun, about four in 10 (39.5 per cent) of all persons reported usually wearing both a hat and sunglasses, more than half (50.3 per cent) reported usually wearing a hat, and almost three-quarters (74.3 per cent) usually wore sunglasses.
- Almost one in seven (14.7 per cent) reported that they did not wear either a hat and/or sunglasses.
- A greater proportion of males (43.7 per cent) than females (35.4 per cent) reported wearing both a hat and sunglasses.
- Overall, females compared with males were more likely to report wearing sunglasses (80.1 and 68.1 per cent, respectively) and less likely to report wearing a hat (40.7 and 60.4 per cent, respectively).
- There were also differences in the proportion of persons who reported wearing a hat and sunglasses, by age group, with younger persons less likely to report wearing a hat and sunglasses than older persons.
- Males and females from the rural regions were more likely to wear a hat when out in the sun, compared with males and females from the metropolitan regions or Victoria overall.
- There were no regional differences in the proportion of males and females who usually wore sunglasses when out in the sun.

Change in vision

- Almost four in 10 (37.9 per cent) persons reported having noticed a change in their vision in the past 12 months.
- Females (42.0 per cent) were more likely than males (33.6 per cent) to report having noticed a change in their vision in the past 12 months.
- Persons aged 45–54 years (63.4 per cent) were more likely to report having noticed a change in their vision than persons in any other age group.
- There were no regional differences in the proportion of persons who reported having noticed a change in their vision in the past 12 months.

Saw an eye care professional

- More than three-quarters (78.1 per cent) of all persons had consulted an eye care specialist or attended an eye clinic at least once in their lifetime.
- A higher proportion of females (83.0 per cent) reported having ever consulted an eye care specialist or attended an eye clinic, compared with males (73.1 per cent).
- There were no regional differences in the proportion of males and females who reported having ever consulted an eye care specialist or attended an eye clinic.
- More than one in four (28.2 per cent) persons had visited an eye care specialist or attended an eye clinic in the past six months and 25.2 per cent had visited a specialist or clinic between six months to one year prior to the survey.

Selected eye conditions

- Fewer than one in ten (8.2 per cent) persons reported ever having had a cataract, 2.0 per cent reported glaucoma, 2.1 per cent reported macular degeneration and 0.5 per cent reported diabetic retinopathy.
- Females (8.9 per cent) were more likely than males (7.0 per cent) to report having ever had a cataract.

Health checks

Blood pressure checks

- The proportion of persons who reported having had their blood pressure checked in the past two years was 80.4 per cent.
- Females (83.5 per cent) were more likely than their male (77.3 per cent) counterparts to have had their blood pressure checked in the past two years.
- The proportion of persons who had had their blood pressure checked increased with age.
- There were no significant differences between the rural and metropolitan regions of the state in the proportion of persons who reported having had a blood pressure check in the past two years.

Cholesterol checks

- Over half (58.5 per cent) of all persons aged 18 years and over reported having had a blood cholesterol test in the preceding two years.
- A higher proportion of males than females had had a blood cholesterol test in the preceding two years (61.5 per cent and 55.6 per cent respectively).
- The proportion of males and females who had had their blood cholesterol checked increased with age.
- A higher proportion of females from the metropolitan regions (56.8 per cent) had had a cholesterol check in the preceding two years compared with females from the rural regions (52.3 per cent), while there was no such difference between males by region.

Blood glucose checks

- Over half (54.2 per cent) of all persons aged 18 years and over reported having had a blood glucose test in the preceding two years.
- The proportion of males and females who had had their blood glucose checked increased with age.

- There were no regional differences in the proportion of males and females who had had their blood glucose checked in the preceding two years, with the exception that males from Grampians Region were less likely to have had a blood glucose check.

Bowel cancer testing

- Just over one-third of those aged 50 years and older had been tested for bowel cancer (36.5 per cent) in the preceding two years.
- There was no difference between males and females overall in the proportion that were tested for bowel cancer.
- Just over three in five persons, aged 50 years and over, had had a colonoscopy or sigmoidoscopy (58.3 per cent), just over two in four had had a faecal occult blood test (FOBT) (42.9 per cent), while just under two in one-hundred had had a barium enema (1.6 per cent) in the preceding two years.

Fruit and vegetable consumption

The current Australian guidelines recommend a minimum daily vegetable intake of four serves for persons aged 12–18 years and five serves for persons aged 19 years and over, where a serve is defined as half a cup of cooked vegetables or a cup of salad vegetables (NHMRC 2003a, 2003b). The recommended minimum daily fruit intake is three serves for persons aged 12–18 years and two serves for persons aged 19 years and over, where a serve is defined as one medium piece or two small pieces of fruit or one cup of diced pieces (Table 2.1).

Table 2.1: Recommended daily intake of fruit and vegetables

Guideline	Age group[(a)]	Recommended daily intake
Fruit	Persons aged 12–18	Three serves
	Persons aged 19 years and over	Two serves
Vegetables	Persons aged 12–18	Four serves
	Persons aged 19 years and over	Five serves

Source: NHMRC 2003a, 2003b.

(a) Excludes pregnant or breastfeeding women.

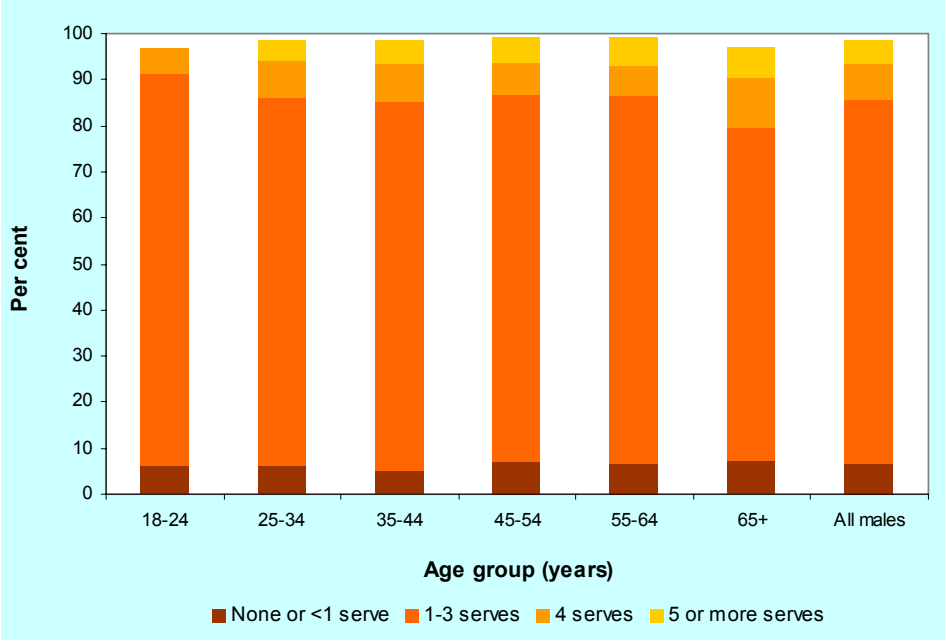
Table 2.2 and Figures 2.1a and 2.1b show vegetable consumption by age group in males and females. The data show that males (79.1 per cent) and females (70.9 per cent) most commonly consumed one to three serves of vegetables per day across all age groups, with no significant variation by age. However, females (9.7 per cent) were almost twice as likely as males (5.0 per cent) to consume five or more serves per day.

Table 2.2 Daily vegetable consumption (serves[a]), by age group and sex, 2010

Age group	None or <1 serve			1-3 serves			4 serves			5 or more serves		
(years)		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**6.3***	2.9	13.2	**84.8**	76.1	90.7	**5.8***	2.6	12.6	**	**	**
25-34	**6.1***	3.3	10.8	**80.0**	73.4	85.3	**7.9***	4.7	13.0	**4.4***	2.3	8.5
35-44	**5.3**	3.4	8.3	**80.0**	75.3	83.9	**8.0**	5.5	11.5	**5.4**	3.4	8.3
45-54	**6.8**	4.8	9.6	**79.8**	75.8	83.3	**7.1**	5.1	9.8	**5.5**	3.7	8.2
55-64	**6.8**	4.6	9.9	**79.5**	75.4	83.1	**6.8**	4.8	9.6	**6.1**	4.3	8.5
65+	**7.4**	5.3	10.2	**72.1**	68.1	75.7	**11.0**	8.7	13.8	**6.5**	4.9	8.8
All males	**6.5**	**5.3**	**7.9**	**79.1**	**77.0**	**81.0**	**7.9**	**6.6**	**9.3**	**5.0**	**4.1**	**6.1**
FEMALES												
18-24	**4.3***	1.8	10.1	**79.2**	71.2	85.5	**8.7***	4.9	15.1	**4.8***	2.3	9.8
25-34	**5.7***	3.4	9.4	**75.3**	69.8	80.1	**13.6**	10.0	18.1	**4.9***	2.9	8.3
35-44	**3.7**	2.4	5.6	**71.3**	67.6	74.7	**14.2**	11.7	17.2	**10.4**	8.2	13.0
45-54	**2.9**	1.8	4.6	**70.2**	66.6	73.5	**13.9**	11.5	16.6	**12.3**	10.0	15.0
55-64	**3.0**	1.9	4.7	**64.8**	61.0	68.4	**16.0**	13.4	18.9	**14.7**	12.2	17.6
65+	**5.1**	3.7	7.0	**65.3**	62.0	68.4	**16.1**	13.8	18.6	**11.3**	9.4	13.5
All females	**4.2**	**3.4**	**5.2**	**70.9**	**69.1**	**72.7**	**13.8**	**12.5**	**15.2**	**9.7**	**8.7**	**10.8**
PERSONS												
18-24	**5.3***	3.0	9.4	**82.1**	76.4	86.6	**7.2**	4.5	11.4	**3.3***	1.7	6.4
25-34	**5.9**	3.9	8.7	**77.7**	73.5	81.4	**10.7**	8.2	13.9	**4.7**	3.1	7.1
35-44	**4.5**	3.3	6.1	**75.6**	72.6	78.3	**11.1**	9.3	13.3	**7.9**	6.3	9.8
45-54	**4.8**	3.6	6.4	**74.9**	72.3	77.4	**10.5**	8.9	12.4	**9.0**	7.4	10.8
55-64	**4.9**	3.6	6.6	**72.0**	69.3	74.7	**11.5**	9.7	13.4	**10.5**	8.9	12.3
65+	**6.1**	4.9	7.7	**68.3**	65.8	70.7	**13.8**	12.1	15.6	**9.2**	7.8	10.7
All persons	**5.3**	**4.6**	**6.2**	**74.9**	**73.5**	**76.2**	**10.9**	**10.0**	**11.9**	**7.4**	**6.7**	**8.2**

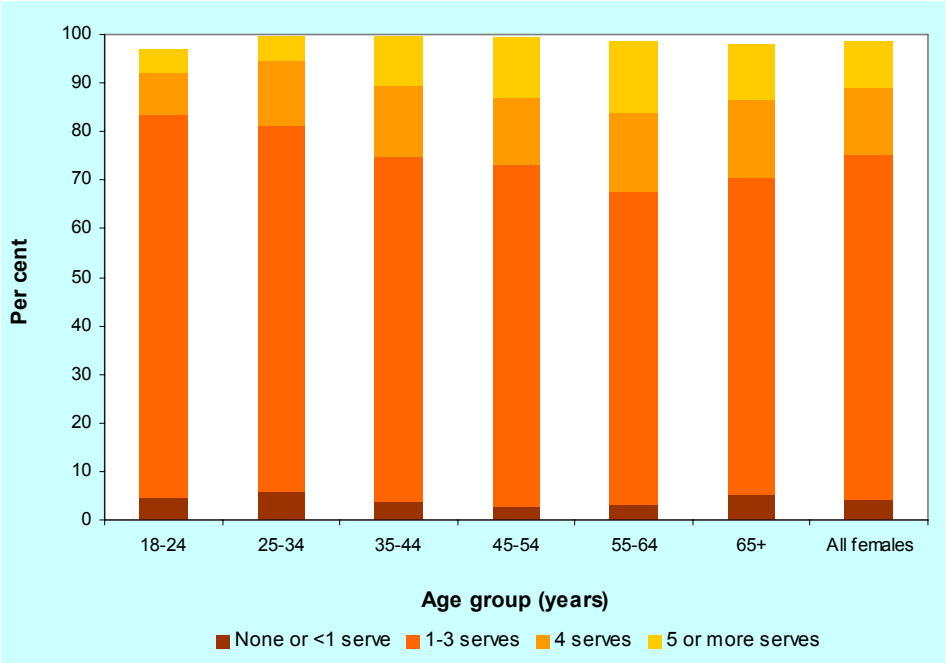
a) A serve is half a cup of cooked vegetables or a cup of salad vegetables.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below the Victorian estimate.
* Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE greater than 50 per cent and is not reported as it is unreliable for general use.

Figure 2.1a Daily vegetable consumption (serves[a]) in males, by age group, 2010



[a]A serve is half a cup of cooked vegetables or a cup of salad vegetables.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for 'all males' which was age standardised to the 2006 Victorian population.

Figure 2.1b Daily vegetable consumption (serves[a]) in females, by age group, 2010



[a]A serve is half a cup of cooked vegetables or a cup of salad vegetables.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for 'all females' which was age standardised to the 2006 Victorian population.

Table 2.3 shows vegetable consumption by Department of Health region in males and females. There were no regional differences in males with the exception of those who resided in Loddon Mallee Region where a higher proportion (10.2 per cent) consumed five or more serves of vegetables per day compared with all Victorian males (5.0 per cent). Similarly there were no regional differences in females with the exception of those who resided in North and

West Metropolitan Region where a higher proportion (7.5 per cent) consumed less than one serve of vegetables per day compared with all Victorian females (4.2 per cent). Higher proportions of females, regardless of whether they resided in the rural or metropolitan regions of Victoria, consumed four or five or more serves of vegetables compared with their male counterparts.

Table 2.3 Daily vegetable consumption (serves[a]) by Department of Health region and sex, 2010

	None or <1 serve			1-3 serves			4 serves			5 or more serves		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**6.8**	4.4	10.4	**77.1**	71.6	81.8	**10.9**	7.5	15.5	**5.1**	3.2	8.0
North & West Metropolitan	**8.6**	6.0	12.0	**77.9**	73.2	81.9	**6.1**	4.1	9.0	**4.8**	3.0	7.6
Southern Metropolitan	**7.0**	4.8	10.1	**80.1**	75.8	83.8	**7.0**	4.9	10.0	**4.4**	2.7	7.1
All metropolitan males	**7.5**	6.0	9.4	**78.6**	75.9	81.1	**7.6**	6.1	9.5	**4.7**	3.6	6.1
Barwon-South Western	**2.1***	1.1	3.9	**83.9**	78.8	88.0	**7.9**	4.9	12.7	**5.2**	3.3	7.9
Gippsland	**8.0***	4.7	13.4	**77.2**	70.9	82.5	**9.0**	6.3	12.5	**4.9***	2.6	9.0
Grampians	**3.3***	1.7	6.2	**81.7**	77.0	85.7	**8.7**	5.8	12.8	**5.7**	4.0	8.2
Hume	**3.4***	1.7	6.7	**77.0**	70.4	82.5	**11.8**	8.2	16.8	**5.5***	3.0	9.7
Loddon Mallee	**3.9***	2.3	6.5	**79.2**	74.8	83.0	**4.9**	3.2	7.3	**10.2**	7.6	13.6
All rural males	**3.9**	2.9	5.3	**80.3**	77.8	82.6	**8.4**	6.9	10.2	**6.0**	4.7	7.6
All Victorian males	**6.5**	**5.3**	**7.9**	**79.1**	**77.0**	**81.0**	**7.9**	**6.6**	**9.3**	**5.0**	**4.1**	**6.1**
FEMALES												
Eastern Metropolitan	**2.6***	1.5	4.7	**72.3**	68.0	76.2	**15.9**	12.7	19.6	**8.2**	6.2	10.7
North & West Metropolitan	**7.5**	5.5	10.2	**69.5**	65.6	73.1	**10.9**	8.7	13.7	**9.9**	7.8	12.5
Southern Metropolitan	**2.4***	1.4	4.2	**73.1**	68.9	76.9	**14.1**	11.1	17.7	**9.0**	7.0	11.5
All metropolitan females	**4.6**	3.6	5.9	**71.6**	69.3	73.8	**13.2**	11.6	15.0	**9.1**	7.8	10.5
Barwon-South Western	**1.5***	0.8	2.6	**68.5**	64.0	72.7	**17.1**	13.6	21.2	**12.3**	9.9	15.3
Gippsland	**2.3***	1.3	4.2	**71.9**	67.3	76.1	**14.4**	11.1	18.3	**10.9**	8.5	13.9
Grampians	**3.9***	1.9	7.7	**71.7**	66.8	76.2	**14.0**	11.0	17.6	**10.0**	7.5	13.2
Hume	**5.9***	3.2	10.4	**66.3**	61.1	71.2	**14.9**	12.0	18.4	**11.6**	9.3	14.3
Loddon Mallee	**2.9***	1.7	5.0	**70.2**	66.1	74.0	**15.6**	12.8	18.9	**10.7**	8.3	13.6
All rural females	**3.1**	2.3	4.2	**69.5**	67.4	71.5	**15.4**	13.9	17.0	**11.3**	10.1	12.6
All Victorian females	**4.2**	**3.4**	**5.2**	**70.9**	**69.1**	**72.7**	**13.8**	**12.5**	**15.2**	**9.7**	**8.7**	**10.8**

[a] A serve is half a cup of cooked vegetables or a cup of salad vegetables.
Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data have were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

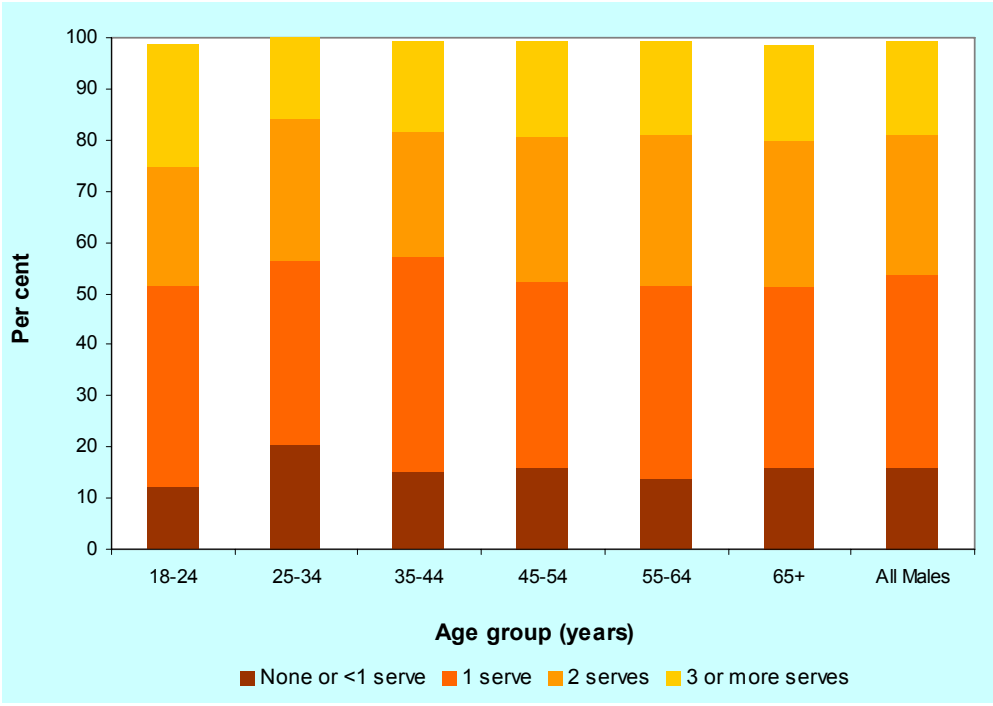
Table 2.4 and Figures 2.2a and 2.2b, show daily fruit consumption of males and females, by age group. More than one in two persons consumed two or more serves of fruit per day. A similar proportion of females (21.6 per cent) and males (18.4 per cent) consumed three or more serves per day. However a higher proportion of males consumed none or less than one (16.0 per cent) or 1 serve (37.8 per cent) of fruit per day compared with their females counterparts (11.3 and 32.9 per cent, respectively). By contrast, a higher proportion of females (33.7 per cent) consumed two serves of fruit per day compared with their male counterparts (27.1 per cent). There was very little variation by age in fruit consumption for either sex where the data are presented by average number of daily serves consumed.

Table 2.4 Daily fruit consumption (serves[a]), by age group and sex, 2010

Age group (years)	None or <1 serve			1 serve			2 serves			3 or more serves		
		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
18-24	**12.0***	6.9	20.1	**39.5**	30.2	49.7	**23.3**	15.9	32.9	**23.9**	16.3	33.6
25-34	**20.3**	15.1	26.9	**36.2**	29.5	43.5	**27.6**	21.4	34.7	**15.9**	11.1	22.2
35-44	**15.4**	12.0	19.4	**41.9**	36.7	47.2	**24.4**	20.1	29.4	**17.7**	13.9	22.2
45-54	**15.8**	12.8	19.3	**36.5**	32.2	41.0	**28.3**	24.3	32.7	**18.6**	15.2	22.5
55-64	**13.8**	10.9	17.4	**37.7**	33.1	42.4	**29.6**	25.3	34.2	**18.2**	14.8	22.3
65+	**16.0**	13.1	19.4	**35.3**	31.4	39.3	**28.6**	25.0	32.6	**18.8**	15.7	22.3
All Males	**16.0**	**14.2**	**17.9**	**37.8**	**35.3**	**40.2**	**27.1**	**24.9**	**29.4**	**18.4**	**16.5**	**20.5**
FEMALES												
18-24	**10.7***	6.2	17.8	**32.6**	25.0	41.1	**33.4**	25.7	42.1	**22.3**	15.8	30.5
25-34	**13.3**	9.7	18.0	**39.4**	33.8	45.3	**27.7**	22.8	33.3	**19.3**	15.0	24.6
35-44	**12.3**	9.9	15.1	**35.7**	31.9	39.6	**35.3**	31.6	39.2	**16.5**	13.8	19.6
45-54	**12.4**	10.1	15.1	**29.6**	26.3	33.2	**34.8**	31.2	38.5	**22.4**	19.3	25.8
55-64	**9.0**	7.1	11.5	**26.6**	23.4	30.2	**37.5**	33.9	41.3	**26.5**	23.2	30.1
65+	**8.1**	6.4	10.2	**30.0**	27.0	33.1	**35.5**	32.4	38.8	**26.0**	23.1	29.0
All females	**11.3**	**10.0**	**12.8**	**32.9**	**31.0**	**34.9**	**33.7**	**31.8**	**35.6**	**21.6**	**20.0**	**23.3**
PERSONS												
18-24	**11.4**	7.7	16.5	**36.1**	30.0	42.8	**28.2**	22.6	34.6	**23.1**	17.9	29.3
25-34	**16.8**	13.5	20.8	**37.8**	33.3	42.5	**27.7**	23.6	32.1	**17.6**	14.2	21.6
35-44	**13.8**	11.7	16.2	**38.7**	35.5	42.0	**29.9**	27.0	33.0	**17.1**	14.7	19.8
45-54	**14.1**	12.1	16.2	**33.0**	30.3	35.9	**31.6**	28.9	34.4	**20.5**	18.2	23.0
55-64	**11.4**	9.6	13.5	**32.1**	29.2	35.0	**33.6**	30.8	36.6	**22.4**	20.0	25.1
65+	**11.6**	10.0	13.5	**32.4**	30.0	34.9	**32.4**	30.0	34.9	**22.7**	20.6	25.0
All persons	**13.6**	**12.4**	**14.8**	**35.3**	**33.7**	**36.9**	**30.4**	**29.0**	**31.9**	**20.1**	**18.8**	**21.4**

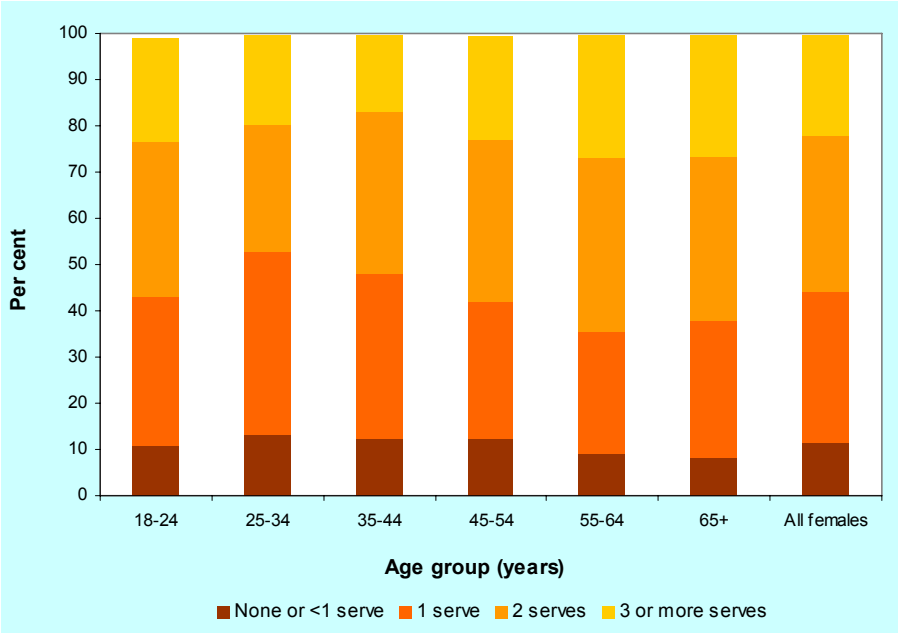
[a] A serve is one medium piece or two small pieces of fruit, or one cup of diced pieces.
Figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Figure 2.2a Daily fruit consumption (serves[a]) in males, by age group, 2010



[a] A serve is one medium piece or two small pieces of fruit, or one cup of diced pieces.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for 'all males' which was age standardised to the 2006 Victorian population.

Figure 2.2b Daily fruit consumption (serves[a]) in females, by age group, 2010



[a]A serve is one medium piece or two small pieces of fruit, or one cup of diced pieces.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses
Data are crude estimates, except for 'all females' which was age standardised to the 2006 Victorian population.

Table 2.5 shows that there were no differences in the daily fruit consumption of males and females by region, with the exception that a lower proportion of females (27.3 per cent) who resided in Grampians Region consumed two serves of fruit per day compared with all Victorian females (33.7 per cent).

Table 2.5 Daily fruit consumption (serves)[a], by Department of Health region and sex, 2010

	None or <1 serve			1 serve			2 serves			3 or more serves		
		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
Eastern Metropolitan	**11.2**	8.0	15.6	**41.5**	35.5	47.7	**27.2**	22.1	32.9	**20.1**	15.7	25.3
North & West Metropolitan	**14.6**	11.3	18.6	**34.6**	29.8	39.6	**30.0**	25.5	34.9	**19.7**	16.1	23.8
Southern Metropolitan	**19.4**	15.2	24.4	**35.4**	30.3	40.8	**26.5**	21.8	31.9	**17.9**	14.3	22.2
All metropolitan males	**15.0**	12.8	17.5	**36.8**	33.8	39.9	**28.0**	25.2	31.0	**19.4**	17.0	22.0
Barwon-South Western	**16.2**	12.2	21.1	**40.9**	35.0	47.1	**28.2**	23.0	34.2	**13.4**	9.3	19.0
Gippsland	**19.3**	14.2	25.8	**36.6**	30.3	43.5	**23.9**	19.3	29.2	**19.6**	14.7	25.6
Grampians	**26.2**	21.1	32.0	**37.7**	31.7	44.2	**20.0**	15.7	25.1	**14.6**	10.4	20.0
Hume	**23.6**	17.8	30.6	**40.0**	33.4	46.9	**22.2**	17.0	28.5	**14.0**	10.0	19.4
Loddon Mallee	**15.8**	11.8	20.7	**45.8**	39.5	52.2	**22.7**	17.8	28.6	**15.0**	11.0	20.1
All rural males	**19.0**	16.7	21.6	**40.7**	37.7	43.9	**24.1**	21.6	26.8	**15.3**	13.2	17.7
All Victorian males	**16.0**	**14.2**	**17.9**	**37.8**	**35.3**	**40.2**	**27.1**	**24.9**	**29.4**	**18.4**	**16.5**	**20.5**
FEMALES												
Eastern Metropolitan	**8.6**	6.2	11.7	**35.0**	30.7	39.7	**32.0**	28.0	36.3	**24.2**	20.5	28.3
North & West Metropolitan	**12.8**	10.1	16.1	**30.6**	26.8	34.7	**33.8**	30.0	37.9	**22.3**	18.9	26.0
Southern Metropolitan	**11.3**	8.8	14.4	**32.6**	28.4	37.1	**34.3**	30.1	38.7	**21.0**	17.7	24.7
All metropolitan females	**11.4**	9.7	13.2	**32.4**	30.0	34.9	**33.5**	31.1	35.9	**22.3**	20.3	24.5
Barwon-South Western	**8.7**	6.1	12.1	**30.3**	26.5	34.5	**37.3**	32.4	42.6	**23.2**	18.9	28.2
Gippsland	**11.3**	8.4	15.1	**35.6**	30.6	41.0	**33.3**	28.6	38.4	**18.7**	15.1	22.9
Grampians	**16.4**	12.7	20.8	**39.0**	33.9	44.4	**27.3**	23.2	31.7	**16.6**	13.5	20.4
Hume	**11.4**	8.2	15.7	**31.0**	26.3	36.1	**37.1**	31.8	42.7	**20.1**	16.0	24.9
Loddon Mallee	**11.5**	8.7	14.9	**34.5**	30.2	39.0	**35.6**	31.3	40.2	**17.8**	14.6	21.6
All rural females	**11.1**	9.6	12.7	**34.2**	32.0	36.6	**34.5**	32.2	36.8	**19.6**	17.8	21.5
All Victorian females	**11.3**	**10.0**	**12.8**	**32.9**	**31.0**	**34.9**	**33.7**	**31.8**	**35.6**	**21.6**	**20.0**	**23.3**

[a] A serve is one medium piece or two small pieces of fruit, or one cup of diced pieces.
Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Table 2.6 shows the proportion of males and females by age group who met the 2003 Australian recommended guidelines for daily fruit and vegetable consumption. More than five in one-hundred people (5.4 per cent) met both guidelines, with over double the proportion of females (7.2 per cent) compared with males (3.5 per cent). At the other end of the spectrum, over one in two males (51.7 per cent) and over two in five females (41.6 per cent), met neither guideline. More persons met the fruit guideline (49.9 per cent) than the vegetable guideline (7.7 per cent). A higher proportion of females met the vegetable (10.0 per cent), fruit (54.5 per cent), and both guidelines (7.2 per cent) compared with their male counterparts (5.2, 45.1, and 3.5 per cent, respectively).

A higher proportion of females, but not males, who were aged 55 years and over met the fruit guideline compared with all ages and a higher proportion of females aged 25-34 years met neither guideline. Similarly, a higher proportion of females aged 55-64 years met the vegetable guidelines or both guidelines compared with all ages. By contrast, there was no variation by age in males who met or did not meet any guideline for fruit and/or vegetable consumption.

Table 2.6. Meeting guidelines[a] for consumption of fruit and vegetables, by age group and sex, 2010

Age group (years)	Met both guidelines	95% CI		Met vegetable guideline	95% CI		Met fruit guideline	95% CI		Met neither guideline	95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
18-24	**0.0**	0.0	0.0	**3.8***	1.4	9.9	**43.5**	33.9	53.7	**51.4**	41.4	61.3
25-34	**3.7***	1.8	7.5	**4.4***	2.3	8.5	**43.5**	36.3	50.9	**54.9**	47.5	62.1
35-44	**3.8***	2.2	6.4	**5.4**	3.4	8.3	**42.1**	36.9	47.5	**55.5**	50.1	60.8
45-54	**4.4**	2.8	7.0	**5.5**	3.7	8.2	**46.9**	42.3	51.5	**51.0**	46.4	55.6
55-64	**4.0**	2.6	6.2	**6.1**	4.3	8.5	**47.8**	43.0	52.6	**49.2**	44.4	54.0
65+	**4.3**	3.0	6.0	**6.5**	4.9	8.8	**47.4**	43.2	51.6	**46.8**	42.6	50.9
All Males	**3.5**	**2.8**	**4.5**	**5.2**	**4.3**	**6.4**	**45.1**	**42.5**	**47.6**	**51.7**	**49.2**	**54.3**
FEMALES												
18-24	**4.4***	1.9	9.7	**7.3***	3.9	13.3	**47.8**	39.2	56.5	**47.3**	38.7	56.0
25-34	**3.8***	2.1	6.9	**4.9***	2.9	8.3	**47.0**	41.2	53.0	**51.1**	45.1	57.0
35-44	**7.1**	5.3	9.5	**10.4**	8.2	13.0	**51.8**	47.8	55.8	**44.3**	40.3	48.2
45-54	**9.7**	7.6	12.2	**12.3**	10.0	15.0	**57.2**	53.3	60.9	**39.0**	35.4	42.8
55-64	**10.8**	8.7	13.4	**14.7**	12.2	17.6	**64.0**	60.3	67.6	**31.2**	27.8	34.8
65+	**8.1**	6.5	10.0	**11.3**	9.4	13.5	**61.5**	58.2	64.7	**33.9**	**30.8**	**37.1**
All females	**7.2**	**6.3**	**8.2**	**10.0**	**8.9**	**11.1**	**54.5**	**52.4**	**56.5**	**41.6**	**39.6**	**43.6**
PERSONS												
18-24	**2.1***	0.9	4.8	**5.5***	3.2	9.3	**45.6**	39.0	52.3	**49.4**	42.8	56.1
25-34	**3.8**	2.3	6.0	**4.7**	3.1	7.1	**45.3**	40.6	50.0	**53.0**	48.2	57.7
35-44	**5.4**	4.2	7.1	**7.9**	6.3	9.8	**47.0**	43.7	50.3	**49.8**	46.5	53.1
45-54	**7.1**	5.7	8.8	**9.0**	7.4	10.8	**52.1**	49.1	55.1	**44.9**	42.0	47.9
55-64	**7.5**	6.1	9.1	**10.5**	8.9	12.3	**56.0**	53.0	59.1	**40.1**	**37.1**	**43.1**
65+	**6.4**	5.3	7.6	**9.2**	7.8	10.7	**55.1**	52.5	57.8	**39.7**	37.1	42.3
All persons	**5.4**	**4.8**	**6.1**	**7.7**	**7.0**	**8.5**	**49.9**	**48.3**	**51.5**	**46.5**	**44.9**	**48.2**

[a] Based on national guidelines (NHMRC 2003).
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses. The four categories are not mutually exclusive.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Table 2.7 shows the proportion of males and females who met the 2003 Australian recommended guidelines for daily fruit and vegetable consumption, by Department of Health region. There were few regional differences and no overall differences between males and females who resided in rural compared with metropolitan Victoria. Of the differences that were observed, a higher proportion of males (62.1 per cent) and females (51.3 per cent) who resided in Grampians Region did not meet either guideline for fruit and vegetable consumption compared with all Victorian males (51.7 per cent) and all Victorian females (41.6 per cent), respectively. A higher proportion of males (10.2 per cent) who resided in Loddon Mallee Region met the guidelines for vegetable consumption compared with all Victorian males (5.2 per cent).

Table 2.7 Meeting guidelines[a] for consumption of fruit and vegetables, by Department of Health region and sex, 2010

	Met both guidelines			Met vegetable guideline			Met fruit guideline			Met neither guideline		
		95% CI			95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
MALES												
Eastern Metropolitan	**3.8***	2.2	6.5	**5.1**	3.2	8.0	**46.9**	40.9	53.1	**51.8**	45.6	57.9
North & West Metropolitan	**3.3***	1.9	5.8	**5.3**	3.4	8.4	**49.7**	44.5	54.9	**45.7**	40.6	50.8
Southern Metropolitan	**3.3***	1.9	5.8	**4.4**	2.7	7.1	**43.9**	38.5	49.4	**53.7**	48.2	59.2
All metropolitan males	**3.4**	2.4	4.6	**4.8**	3.7	6.4	**47.1**	43.9	50.3	**50.0**	46.8	53.2
Barwon-South Western	**3.3***	1.9	5.7	**5.2**	3.3	7.9	**39.4**	33.2	45.9	**57.0**	50.5	63.3
Gippsland	**4.0***	1.9	8.3	**4.9***	2.6	9.0	**43.5**	37.0	50.2	**54.5**	47.8	61.0
Grampians	**4.0**	2.6	6.2	**5.7**	4.0	8.2	**34.5**	28.7	40.9	**62.1**	55.8	68.1
Hume	**4.7***	2.4	9.0	**7.2***	4.3	11.8	**35.4**	29.2	42.2	**59.9**	52.9	66.6
Loddon Mallee	**3.1***	1.8	5.2	**10.2**	7.6	13.6	**37.8**	31.9	44.0	**53.5**	47.2	59.7
All rural males	**3.8**	2.9	5.1	**6.5**	5.1	8.2	**38.5**	35.6	41.5	**57.2**	54.1	60.2
All Victorian males	**3.5**	**2.8**	**4.5**	**5.2**	**4.3**	**6.4**	**45.1**	**42.5**	**47.6**	**51.7**	**49.2**	**54.3**
FEMALES												
Eastern Metropolitan	**5.6**	4.0	7.8	**8.2**	6.2	10.7	**55.1**	50.5	59.6	**41.4**	37.0	46.0
North & West Metropolitan	**7.4**	5.6	9.8	**10.3**	8.2	13.0	**55.7**	51.5	59.8	**39.9**	35.9	44.1
Southern Metropolitan	**7.2**	5.4	9.5	**9.3**	7.2	11.9	**54.3**	49.8	58.8	**42.3**	37.9	46.8
All metropolitan males	**6.8**	5.7	8.1	**9.3**	8.0	10.8	**54.9**	52.3	57.5	**41.4**	38.8	44.0
Barwon-South Western	**9.1**	7.1	11.7	**12.3**	9.9	15.3	**60.1**	55.3	64.7	**36.0**	31.5	40.7
Gippsland	**7.6**	5.6	10.1	**11.6**	9.0	14.9	**51.3**	46.0	56.6	**43.4**	38.2	48.6
Grampians	**6.1**	4.5	8.2	**10.0**	7.5	13.2	**43.9**	39.1	48.8	**51.3**	46.2	56.4
Hume	**8.8**	6.8	11.3	**12.3**	9.8	15.3	**55.8**	50.5	60.9	**39.4**	34.1	44.9
Loddon Mallee	**7.3**	5.3	9.9	**10.7**	8.3	13.6	**52.6**	48.0	57.2	**43.0**	38.5	47.7
All rural females	**7.9**	6.9	9.0	**11.5**	10.3	12.9	**53.3**	50.9	55.6	**42.0**	39.7	44.4
All Victorian females	**7.2**	**6.3**	**8.2**	**10.0**	**8.9**	**11.1**	**54.5**	**52.4**	**56.5**	**41.6**	**39.6**	**43.6**

[a] Based on national guidelines (NHMRC 2003).
Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses. The four categories are not mutually exclusive.
Data were been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Fruit and vegetable consumption, by selected risk factors

Table 2.8 shows the daily fruit and vegetable consumption of males and females, by selected risk factors.

Males who did not meet either guideline for fruit and vegetable consumption were more likely to be sedentary and/or consume alcohol at levels that put them at long-term risk of alcohol-related harm. Females were more likely to have high levels of psychological distress, be sedentary or not engage in sufficient physical activity, be a current smoker, and/or rate their health status as fair or poor.

Females, but not males, who met either guideline for fruit and vegetable consumption, or both, were more likely to have met the physical activity guidelines, while females who met the fruit guideline were more likely to rate their health as excellent or very good.

Table 2.8 Fruit and vegetable consumption[a], by selected risk factors, 2010

	Met both guidelines			Met veg guideline			Met fruit guideline			Met neither guideline		
		95% CI			95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
MALES	**3.5**	**2.8**	**4.5**	**5.2**	**4.3**	**6.4**	**45.1**	**42.5**	**47.6**	**51.7**	**49.2**	**54.3**
Psychological distress[a]												
Low (< 16)	**4.1**	3.1	5.4	**5.9**	4.7	7.6	**45.9**	42.9	49.0	**51.1**	48.0	54.2
Moderate (16 to 21)	**2.4***	1.4	4.3	**3.6***	2.2	5.9	**43.9**	38.4	49.5	**54.1**	48.5	59.6
High (22 to 29)	**1.8***	0.7	4.5	**3.8***	1.7	8.3	**41.3**	33.3	49.9	**53.0**	44.0	61.8
Very high (>= 30)	**5.1***	2.1	11.8	**7.8***	4.0	14.8	**35.2**	26.3	45.2	**45.8**	36.3	55.6
Physical activity[b]												
Sedentary	**	**	**	**	**	**	**30.5**	23.3	38.6	**66.4**	58.3	73.7
Insufficient time & sessions	**2.6***	1.6	4.3	**3.4**	2.2	5.3	**40.7**	35.4	46.2	**57.6**	52.2	62.9
Sufficient time & sessions	**4.2**	3.2	5.6	**6.3**	5.0	7.8	**49.9**	46.7	53.1	**47.3**	44.1	50.5
Alcohol use[c]												
Abstainer	**5.6***	3.4	9.1	**7.6**	5.1	11.4	**47.9**	41.7	54.2	**48.9**	42.7	55.1
Low risk	**3.2**	2.4	4.2	**4.9**	3.8	6.1	**45.1**	42.4	48.0	**51.9**	49.1	54.7
Risky or high risk	**4.3***	2.5	7.2	**4.3***	2.5	7.2	**29.8**	21.1	40.3	**66.7**	56.1	75.8
Diabetes (excluding GDM)												
No	**3.4**	2.7	4.4	**5.2**	4.2	6.4	**44.4**	41.8	47.0	**52.4**	49.8	54.9
Yes	**4.3***	2.0	9.2	**4.9***	2.4	9.6	**36.9**	29.7	44.8	**39.6**	32.3	47.4
Smoking status												
Current smoker	**2.0***	1.1	3.7	**8.0**	6.4	10.1	**34.9**	29.8	40.3	**56.3**	50.8	61.7
Ex-smoker	**3.0***	1.8	5.1	**5.7**	4.3	7.4	**42.6**	37.0	48.5	**51.4**	45.6	57.1
Non-smoker	**4.2**	3.1	5.7	**4.9**	4.9	4.9	**47.5**	44.0	51.0	**50.2**	46.7	53.7
Self-reported health												
Excellent or very good	**4.3**	3.1	6.0	**6.2**	4.7	8.1	**50.0**	46.3	53.6	**47.5**	43.8	51.1
Good	**2.9**	2.0	4.2	**4.6**	3.2	6.6	**42.4**	38.3	46.6	**54.2**	50.0	58.4
Fair or poor	**2.9***	1.3	6.3	**4.2***	2.3	7.3	**37.5**	31.2	44.3	**56.9**	50.1	63.5
Body weight status[e]												
Underweight	**	**	**	**	**	**	**13.1***	6.9	23.4	**34.4**	27.0	42.6
Normal	**4.7**	3.2	6.7	**6.8**	5.0	9.2	**45.1**	40.9	49.2	**51.3**	47.1	55.4
Overweight	**3.2**	2.1	5.0	**4.8**	3.4	6.7	**46.9**	42.5	51.3	**49.4**	45.0	53.8
Obese	**2.5**	1.6	4.0	**3.4**	2.3	5.0	**47.9**	42.2	53.7	**50.3**	44.6	56.0
FEMALES	**7.2**	**6.3**	**8.2**	**10.0**	**8.9**	**11.1**	**54.5**	**52.4**	**56.5**	**41.6**	**39.6**	**43.6**
Psychological distress[a]												
Low (< 16)	**8.2**	7.0	9.6	**10.9**	9.5	12.4	**58.7**	56.0	61.4	**38.2**	35.5	40.9
Moderate (16 to 21)	**5.3**	4.0	6.9	**8.3**	6.4	10.6	**50.4**	46.5	54.4	**45.1**	41.1	49.3
High (22 to 29)	**9.0**	5.6	14.1	**11.3**	7.6	16.6	**45.2**	38.9	51.7	**50.7**	44.2	57.2
Very high (>= 30)	**	**	**	**4.0***	1.8	8.6	**43.8**	34.6	53.3	**50.1**	40.9	59.3
Physical activity (>=19 yrs)[b]												
Sedentary	**4.7***	2.1	9.9	**6.1***	3.2	11.2	**40.2**	32.9	48.0	**52.8**	45.1	60.4
Insufficient time & sessions	**3.7**	2.8	4.8	**6.0**	4.9	7.3	**48.6**	44.9	52.3	**47.6**	44.0	51.4
Sufficient time & sessions	**10.1**	8.6	11.8	**12.9**	11.2	14.7	**59.8**	57.0	62.6	**36.8**	34.1	39.6
Acohol use[c]												
Abstainer	**8.5**	6.5	11.0	**10.6**	8.5	13.3	**57.7**	53.2	62.0	**39.2**	35.0	43.7
Low risk	**6.8**	5.8	7.9	**9.6**	8.4	10.9	**54.3**	51.9	56.6	**42.0**	39.6	44.3
Risky or high risk	**5.1***	2.7	9.5	**13.6**	9.2	19.7	**36.2**	27.5	46.0	**51.9**	42.9	60.8
Diabetes (excluding GDM)	**0.0**	0.0	0.0	**0.0**	0.0	0.0	**0.0**	0.0	0.0	**0.0**	0.0	0.0
no diabetes	**7.2**	6.3	8.2	**10.1**	9.0	11.3	**54.6**	52.5	56.6	**41.5**	39.4	43.5
yes diabetes	**6.0***	3.5	10.2	**6.6***	3.9	10.7	**40.6**	34.1	47.5	**46.6**	40.0	53.3
Smoking status												
Current smoker	**4.8**	3.1	7.3	**7.6**	5.5	10.4	**36.6**	32.0	41.4	**56.9**	52.0	61.6
Ex-smoker	**6.3**	4.9	8.0	**9.4**	7.5	11.7	**55.7**	50.8	60.4	**39.9**	35.3	44.6
Non-smoker	**7.9**	6.8	9.3	**10.5**	9.2	12.0	**59.1**	56.5	61.6	**37.4**	34.9	40.0
Self-reported health												
Excellent or very good	**8.9**	7.6	10.6	**12.4**	10.7	14.2	**60.8**	57.8	63.7	**35.0**	32.2	38.0
Good	**6.5**	5.2	8.2	**8.4**	6.9	10.1	**50.1**	46.9	53.4	**46.8**	43.6	50.1
Fair or poor	**3.4**	2.3	5.2	**6.3**	4.5	8.7	**45.4**	40.4	50.5	**49.8**	44.6	54.9
Body weight status[e]												
Underweight	**10.9***	6.4	18.1	**17.1**	10.9	25.7	**53.7**	43.9	63.2	**37.6**	29.9	46.0
Normal	**7.4**	6.1	8.8	**10.5**	9.0	12.3	**56.6**	53.7	59.5	**39.1**	36.2	42.0
Overweight	**6.4**	5.0	8.2	**9.5**	7.3	12.3	**54.3**	49.6	58.9	**41.8**	37.3	46.5
Obese	**7.2**	5.4	9.6	**9.7**	7.6	12.3	**49.3**	44.4	54.1	**47.6**	42.7	52.4

[a] Based on national guidelines (NHMRC 2003).
[b] Based on the Kessler 10 scale for psychological distress.
[c] Based on National Guidelines (DoHA, 1999).
[d] Based on National Guidelines (NHMRC 2001) for long-term risk of alcohol-related harm.
[e] Based on Body Mass Index (BMI).
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
The four categories are not mutually exclusive.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE greater than 50 per cent and is not reported as it is unreliable for general use.

Trend over time

Table 2.9 shows that the proportion of males, females and persons who did or did not meet the guidelines for daily fruit consumption remained unchanged between 2003 and 2010.

Table 2.9 Fruit consumption[a], by sex, 2003-2010

	2003			2004			2005			2006			2007			2008			2009			2010		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI	
MALES		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL
Did not meet guidelines	**56.7**	54.3	59.1	**56.1**	53.8	58.5	**57.7**	55.2	60.1	**59.9**	57.4	62.3	**60.1**	57.5	62.5	**57.3**	56.0	58.6	**52.9**	50.6	55.2	**54.2**	51.6	56.7
Met guidelines	**43.1**	40.7	45.5	**42.9**	40.5	45.2	**42.2**	39.7	44.6	**38.9**	36.5	41.4	**38.5**	36.0	41.0	**41.6**	40.3	43.0	**45.5**	43.2	47.9	**45.1**	42.5	47.6
FEMALES																								
Did not meet guidelines	**42.4**	40.5	44.4	**40.3**	38.4	42.2	**42.7**	40.8	44.7	**45.7**	43.7	47.7	**47.8**	45.8	49.8	**45.0**	44.0	46.1	**41.3**	39.4	43.2	**45.0**	43.0	47.0
Met guidelines	**57.4**	55.5	59.4	**59.3**	57.4	61.1	**57.2**	55.2	59.2	**53.2**	51.2	55.2	**51.6**	49.6	53.6	**54.1**	53.0	55.2	**57.9**	56.0	59.8	**54.5**	52.4	56.5
PERSONS																								
Did not meet guidelines	**49.3**	47.7	50.8	**48.0**	46.5	49.5	**50.0**	48.4	51.6	**52.6**	51.0	54.2	**53.7**	52.1	55.4	**51.0**	50.2	51.9	**46.8**	45.3	48.3	**49.5**	47.8	51.1
Met guidelines	**50.6**	49.0	52.1	**51.4**	49.8	52.9	**49.9**	48.3	51.5	**46.3**	44.7	47.8	**45.2**	43.6	46.9	**48.0**	47.2	48.9	**52.0**	50.5	53.5	**49.9**	48.3	51.5

[a] Based on national guidelines (NHMRC 2003).
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time

Table 2.10 shows that the proportion of males, females and persons who did or did not meet the guidelines for daily vegetable consumption remained unchanged between 2003 and 2010.

Table 2.10 Vegetable consumption[a], by sex, 2003-2010

	2003			2004			2005			2006			2007			2008			2009			2010		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI	
MALES		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL
Did not meet guidelines	**90.0**	88.6	91.4	**95.3**	94.2	96.2	**93.3**	91.9	94.4	**91.8**	90.1	93.1	**92.5**	91.2	93.6	**93.3**	92.7	93.9	**93.3**	92.1	94.3	**93.2**	91.9	94.4
Met guidelines	**9.7**	8.4	11.1	**3.8**	3.0	4.7	**6.2**	5.1	7.5	**6.9**	5.6	8.4	**5.3**	4.4	6.5	**5.1**	4.6	5.6	**4.9**	4.0	5.9	**5.2**	4.3	6.4
FEMALES																								
Did not meet guidelines	**86.3**	84.9	87.5	**89.4**	88.2	90.6	**87.0**	85.7	88.2	**85.8**	84.5	87.1	**88.4**	87.2	89.6	**87.9**	87.3	88.6	**87.4**	86.2	88.6	**88.7**	87.4	89.8
Met guidelines	**13.6**	12.3	14.9	**10.1**	9.0	11.3	**12.8**	11.6	14.0	**13.3**	12.0	14.6	**10.1**	9.1	11.3	**10.7**	10.1	11.3	**11.2**	10.1	12.4	**10.0**	8.9	11.1
PERSONS																								
Did not meet guidelines	**88.1**	87.2	89.1	**92.3**	91.5	93.0	**90.0**	89.1	90.9	**88.8**	87.7	89.8	**90.4**	89.5	91.3	**90.6**	90.1	91.0	**90.3**	89.4	91.1	**90.9**	90.0	91.7
Met guidelines	**11.6**	10.7	12.6	**7.0**	6.3	7.8	**9.6**	8.8	10.5	**10.1**	9.1	11.0	**7.8**	7.1	8.6	**7.9**	7.5	8.4	**8.1**	7.4	8.9	**7.7**	7.0	8.5

[a] Based on national guidelines (NHMRC 2003).
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Fruit and Vegetable intake guidelines

For the period 2003-2010, the proportion of males, females and persons who did not meet the guidelines for both fruit and vegetable consumption remained stable (Table 2.11).

Table 2.11 Meeting the guidelines[a] for both fruit and vegetable consumption, 2003-2010

	2003			2004			2005			2006			2007			2008			2009			2010		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI	
MALES		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL
Did not meet either guideline	**52.4**	50.0	54.8	**55.2**	52.8	57.5	**55.5**	53.0	57.9	**57.3**	54.9	59.8	**56.7**	54.1	59.2	**54.8**	53.5	56.2	**51.0**	48.6	53.3	**51.7**	49.2	54.3
Met both guidelines	**5.6**	4.7	6.7	**3.0**	2.3	3.9	**4.3**	3.3	5.5	**5.0**	3.9	6.5	**3.1**	2.4	4.0	**3.2**	2.8	3.6	**3.4**	2.7	4.4	**3.5**	2.8	4.5
FEMALES																								
Did not meet either guideline	**39.3**	37.4	41.2	**38.3**	36.4	40.1	**39.7**	37.8	41.7	**41.3**	39.3	43.3	**44.5**	42.5	46.5	**41.9**	40.9	43.0	**38.5**	36.7	40.4	**41.6**	39.6	43.6
Met both guidelines	**10.4**	9.3	11.6	**8.2**	7.2	9.3	**9.9**	8.9	11.0	**9.1**	8.1	10.3	**7.5**	6.6	8.5	**8.0**	7.5	8.6	**8.8**	7.8	9.9	**7.2**	6.3	8.2
PERSONS																								
Did not meet either guideline	**45.6**	44.0	47.1	**46.5**	45.0	48.0	**47.4**	45.8	49.0	**49.1**	47.5	50.7	**50.4**	48.8	52.0	**48.2**	47.3	49.1	**44.5**	43.0	46.0	**46.5**	44.9	48.2
Met both guidelines	**8.1**	7.3	8.9	**5.7**	5.0	6.4	**7.2**	6.5	8.0	**7.1**	6.3	8.0	**5.3**	4.7	6.0	**5.7**	5.3	6.0	**6.2**	5.5	6.9	**5.4**	4.8	6.1

[a] Based on national guidelines (NHMRC 2003).
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Alcohol consumption

Regular, excessive consumption of alcohol over time places people at increased risk of chronic ill health and premature death, and episodes of heavy drinking may place the drinker (and others) at risk of injury or death. The consequences of heavy, regular use of alcohol may include cirrhosis of the liver, cognitive impairment, heart and blood disorders, ulcers, cancers and damage to the pancreas.

The 2001 *Australian alcohol guidelines: health risks and benefits* (NHMRC 2001), emphasise patterns of drinking as opposed to levels of consumption (the average amount consumed). The concept of drinking patterns refers to aspects of drinking behaviour other than the level of drinking, and includes when, where and with whom drinking behaviour occurs, the type of drinks consumed, the number of heavy drinking occasions undertaken and the norms associated with drinking behaviour. The 2001 guidelines identified two main patterns of drinking behaviour as creating a risk to an individual's health:

Excessive alcohol intake on a particular occasion; and,
Consistent high-level intake over months and years.

The 2001 guidelines specified the risks for various drinking levels for males and females of average, or larger than average body size (≥60 kg for males and ≥50 kg for females), over the long term. The guidelines categorised risk according to three levels:

1. Low risk— a level of drinking at which the risk of harm is minimal and there are possible benefits for some of the population;
2. Risky— a level of drinking at which the risk of harm outweighs any possible benefit; and,
3. High risk— a level of drinking at which there is substantial risk of serious harm and above which risk increases rapidly.

In March 2009, the NHMRC introduced a new set of guidelines for alcohol, based on the best current evidence available. The 2009 guidelines were based on a process that included a systematic search and analysis of the research on the health effects and risks of alcohol consumption published between 2001 and 2007.

The data reported in this section, however, have been analysed relative to the 2001 guidelines. Table 2.12 summarises the 2001 Australian alcohol guidelines. Based on the 2001 guidelines, long-term risk of harm due to alcohol consumption is associated with regular daily patterns of drinking alcohol, defined in terms of the amount typically consumed each week. The 2001 guidelines indicate that males are at high risk of long-term harm if they consume seven or more drinks on an average day, or more than 43 drinks per week (table 2.18). For females, high risk of long-term harm is associated with the consumption of five or more standard drinks on an average day, or more than 29 drinks per week. Alcohol consumption is considered risky in the long-term if males consume five to six drinks on an average day (29–42 per week) and if females consume more than three to four drinks daily (15–28 per week).

Table 2.12 Australian alcohol guidelines (2001) for risk to health in the long term[(a)]

		Low risk	Risky	High risk
Males	On an average day	Up to four per day	Five to six per day	Seven or more per day
	Overall weekly level	Up to 28 per week	29–42 per week	43 or more per week
Females	On an average day	Up to two per day	Three to four per day	Five or more per day
	Overall weekly level	Up to 14 per week	15–28 per week	29 or more per week

(a) Based on a standard drink containing 10 grams or 12.5 millilitres of alcohol.

Source: NHMRC 2001.

Short-term risk

Table 2.13 shows the patterns of alcohol consumption that can put males and females at short-term risk of alcohol-related harm, by frequency of risk, age and sex. More than half of all adult males (51.9 per cent) and 38.2 per cent of adult females consumed sufficient alcohol on an occasion in the past year that put them at short-term risk of alcohol-related harm. Overall, males were significantly more likely to be at short-term risk of alcohol-related harm than females, with 13.2 per cent of males being at risk at least weekly compared with only 6.5 per cent of females.

Being at short-term risk of alcohol-related harm was inversely related to age with the highest proportion occurring in those aged 18-24 years. Of note is that the sex difference was observed in all ages with the exception of males and females aged 18-24 years where females were just as likely as males to engage in levels of weekly alcohol consumption that put them at short-term risk of alcohol-related harm

Table 2.13 Short-term risk[a] of alcohol-related harm, by age group and sex, 2010

				Risky or high risk								
	Low risk			At least yearly			At least monthly			At least weekly		
		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
18-24	**12.2***	7.0	20.3	**20.6**	13.6	29.9	**28.5**	20.3	38.4	**17.4**	11.3	25.9
25-34	**23.0**	17.3	30.0	**31.6**	25.1	38.9	**15.2**	10.9	20.9	**17.6**	12.8	23.8
35-44	**27.1**	22.6	32.1	**31.3**	26.5	36.5	**19.6**	15.8	24.1	**12.0**	9.2	15.5
45-54	**33.1**	28.9	37.6	**22.8**	19.2	26.9	**11.2**	8.8	14.2	**15.2**	12.3	18.6
55-64	**44.3**	39.5	49.1	**19.9**	16.4	23.9	**12.3**	9.5	15.9	**11.7**	9.0	15.1
65+	**56.0**	51.8	60.1	**12.9**	10.3	15.9	**5.4**	3.8	7.7	**4.5**	3.2	6.4
All males	**32.9**	**30.8**	**35.0**	**23.4**	**21.3**	**25.6**	**15.3**	**13.5**	**17.3**	**13.2**	**11.6**	**15.1**
FEMALES												
18-24	**14.3**	9.3	21.4	**24.6**	17.9	32.9	**29.4**	21.9	38.2	**18.1**	12.5	25.4
25-34	**32.8**	27.5	38.7	**27.0**	22.1	32.5	**12.5**	9.0	17.0	**6.5**	4.2	10.1
35-44	**40.1**	36.2	44.1	**26.8**	23.5	30.5	**10.3**	8.1	12.8	**6.0**	4.4	8.2
45-54	**38.8**	35.2	42.6	**22.1**	19.1	25.3	**10.7**	8.6	13.2	**6.3**	4.8	8.3
55-64	**51.9**	48.0	55.7	**12.2**	9.9	14.9	**6.3**	4.7	8.4	**4.1**	2.9	5.9
65+	**51.8**	48.4	55.1	**6.3**	4.9	8.2	**1.9**	1.2	3.0	**1.4***	0.8	2.5
All females	**38.6**	**36.8**	**40.5**	**20.3**	**18.6**	**22.1**	**11.4**	**10.0**	**13.0**	**6.5**	**5.5**	**7.7**
PERSONS												
18-24	**13.2**	9.4	18.3	**22.6**	17.5	28.6	**28.9**	23.2	35.4	**17.7**	13.4	23.1
25-34	**27.9**	23.8	32.4	**29.3**	25.1	33.8	**13.8**	11.0	17.3	**12.1**	9.3	15.6
35-44	**33.7**	30.6	36.9	**29.0**	26.1	32.2	**14.9**	12.6	17.4	**9.0**	7.3	11.0
45-54	**36.0**	33.2	38.9	**22.5**	20.1	25.0	**10.9**	9.3	12.8	**10.7**	9.0	12.7
55-64	**48.1**	45.1	51.2	**16.0**	13.8	18.4	**9.3**	7.6	11.3	**7.9**	6.3	9.7
65+	**53.7**	51.0	56.3	**9.3**	7.8	10.9	**3.5**	2.6	4.6	**2.8**	2.1	3.8
All persons	**35.7**	**34.3**	**37.1**	**21.8**	**20.4**	**23.2**	**13.3**	**12.1**	**14.5**	**9.8**	**8.8**	**10.9**

[a] Based on national guidelines (NHMRC 2001).

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.

Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.

Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Table 2.14 shows the patterns of alcohol consumption that can put males and females at short-term risk of alcohol-related harm, by Department of Health region. There were no regional differences between females. However, a significantly higher proportion of males who resided in rural Victoria (61.1 per cent) consumed alcohol at levels that put them at short-term risk of alcohol-related harm compared with metropolitan males (48.9 per cent) and all Victorian males (51.9 per cent). This was observed in all rural regions, with the exception of Barwon-South Western Region. Conversely, a significantly lower proportion of males who resided in Eastern Metropolitan Region (42.8 per cent) were at low risk of short-term risk of alcohol-related harm compared with all Victorian males (51.9 per cent).

Table 2.14 Short-term[a] risk of alcohol-related harm, by Department of Health Region and sex, 2010

	Low risk			Risky/high risk		
		95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
Eastern Metropolitan	**42.8**	37.2	48.6	**44.6**	38.7	50.6
North & West Metropolitan	**33.3**	28.9	38.1	**46.9**	41.9	52.0
Southern Metropolitan	**29.4**	25.4	33.6	**55.0**	49.8	60.1
All metropolitan males	**34.6**	31.9	37.4	**48.9**	45.9	52.0
Barwon-South Western	**29.9**	25.4	34.8	**58.8**	53.0	64.3
Gippsland	**29.3**	24.5	34.6	**60.5**	54.7	66.0
Grampians	**25.6**	21.0	30.8	**60.6**	54.8	66.0
Hume	**27.8**	23.0	33.2	**63.5**	58.0	68.7
Loddon Mallee	**25.3**	21.3	29.9	**63.4**	58.1	68.4
All rural males	**27.7**	25.6	30.0	**61.1**	58.4	63.6
All Victorian males	**32.9**	30.8	35.0	**51.9**	49.4	54.3
FEMALES						
Eastern Metropolitan	**44.6**	40.1	49.1	**34.9**	30.7	39.3
North & West Metropolitan	**36.3**	32.7	40.0	**37.3**	33.6	41.1
Southern Metropolitan	**39.0**	34.9	43.3	**37.6**	33.5	42.0
All metropolitan females	**39.3**	37.0	41.6	**37.1**	34.7	39.5
Barwon-South Western	**39.0**	34.2	43.9	**38.1**	33.1	43.4
Gippsland	**34.3**	29.6	39.3	**42.6**	37.6	47.9
Grampians	**41.2**	36.4	46.1	**42.7**	37.7	47.9
Hume	**33.2**	28.9	37.7	**42.3**	37.2	47.7
Loddon Mallee	**35.5**	31.6	39.6	**43.0**	38.9	47.1
All rural females	**36.6**	34.5	38.8	**41.5**	39.3	43.8
All Victorian females	**38.6**	36.8	40.5	**38.2**	36.3	40.1

[a] Based on national guidelines (NHMRC 2001).
Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Long-term risk

Table 2.15 shows the patterns of alcohol consumption that can put males and females at long-term risk of alcohol-related harm, by age and sex. Abstainers from alcohol are those persons who reported that they did not drink, or who had had a drink in the past 12 months, but reported that they no longer drink (recent abstainers). Females (22.6 per cent) and persons aged 65 years and over (29.6 per cent) were more likely to be abstainers than males (14.7 per cent) and all other ages (18.9 per cent), respectively (table 2.13). There were higher proportions of females (81.0 per cent) and males (88.1 per cent) aged 35-44 years who were at low risk of long-term alcohol-related harm, compared with all females (73.3 per cent) and all males (81.0 per cent).

Table 2.15 Long-term risk[(a)] of alcohol-related harm, by age group and sex, 2010

Age group (years)	Abstainer	95% CI		Low risk	95% CI		Risky or high risk	95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
18-24	**20.9**	13.6	30.7	**72.9**	62.9	81.0	**	**	**
25-34	**12.6**	8.3	18.6	**84.4**	78.1	89.2	**2.8***	1.2	6.4
35-44	**9.7**	6.9	13.6	**88.1**	84.2	91.2	**1.8***	1.0	3.1
45-54	**16.8**	13.5	20.6	**76.7**	72.5	80.5	**5.1**	3.5	7.4
55-64	**11.4**	8.7	14.8	**84.4**	80.6	87.6	**3.6**	2.2	5.9
65+	**19.7**	16.5	23.3	**75.6**	71.8	79.1	**3.5**	2.3	5.4
All males	**14.7**	**12.9**	**16.6**	**81.0**	**78.9**	**82.9**	**3.3**	**2.5**	**4.2**
FEMALES									
18-24	**13.6**	8.6	20.9	**81.1**	73.2	87.0	**	**	**
25-34	**21.0**	16.5	26.3	**74.3**	68.7	79.1	**3.1***	1.6	6.0
35-44	**16.1**	13.4	19.3	**81.0**	77.6	84.0	**2.2***	1.3	3.7
45-54	**21.2**	18.2	24.6	**74.2**	70.6	77.4	**4.3**	3.0	6.0
55-64	**24.9**	21.7	28.4	**69.9**	66.3	73.4	**4.5**	3.1	6.5
65+	**37.8**	34.6	41.1	**60.0**	56.6	63.2	**1.7***	1.0	2.8
All females	**22.6**	**21.0**	**24.3**	**73.3**	**71.5**	**75.1**	**3.0**	**2.4**	**3.8**
PERSONS									
18-24	**17.4**	12.7	23.3	**76.9**	70.6	82.1	**2.4***	1.1	5.1
25-34	**16.8**	13.5	20.6	**79.4**	75.3	82.9	**2.9***	1.7	5.0
35-44	**13.0**	10.9	15.4	**84.5**	82.0	86.7	**2.0**	1.3	2.9
45-54	**19.0**	16.7	21.5	**75.4**	72.7	77.9	**4.7**	3.6	6.0
55-64	**18.2**	16.0	20.7	**77.1**	74.4	79.5	**4.1**	3.0	5.5
65+	**29.6**	27.3	32.1	**67.0**	64.5	69.4	**2.5**	1.8	3.5
All persons	**18.9**	**17.6**	**20.1**	**77.0**	**75.6**	**78.3**	**3.1**	**2.6**	**3.7**

[a] Long-term risk of alcohol-related harm refers to the increased risk of developing various cancers, cirrhosis of the liver, cognitive problems and dementia, and alcohol dependence.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Table 2.16 shows alcohol consumption in males and females, by Department of Health region. There were few regional differences in either males or females, however a greater proportion of males, who resided in Grampians Region (8.6 per cent) and the rural regions overall (5.6 per cent), were at risk of long-term alcohol-related harm compared with all Victorian males (3.3 per cent) and their female counterparts (3.0 per cent, respectively). There was also a greater proportion of males (6.2 per cent), who resided in Loddon Mallee Region, at risk of long-term alcohol-related harm compared with their female counterparts (1.6 per cent).

Table 2.16. Long-term risk[(a)] of alcohol-related harm, by Department of Health region and sex, 2010

	Abstainer			Low risk			Risky or high risk		
		95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
Eastern Metropolitan	**12.6**	9.1	17.3	**84.9**	80.1	88.7	**2.0***	0.8	5.2
North & West Metropolitan	**19.0**	15.4	23.3	**77.3**	72.9	81.1	**3.0**	1.8	4.8
Southern Metropolitan	**14.7**	11.1	19.1	**81.5**	76.8	85.4	**2.0***	1.0	3.9
All metropolitan males	**15.9**	13.7	18.4	**80.6**	77.9	83.0	**2.5**	1.7	3.7
Barwon-South Western	**11.2**	7.6	16.1	**84.3**	78.8	88.5	**4.4***	2.4	7.9
Gippsland	**10.0**	6.8	14.3	**83.4**	77.7	88.0	**3.4***	1.9	5.9
Grampians	**11.9**	8.8	15.9	**77.7**	72.5	82.2	**8.6**	6.2	11.8
Hume	**8.5**	6.0	11.9	**82.7**	77.4	86.9	**6.5**	4.2	9.9
Loddon Mallee	**10.8**	7.6	14.9	**82.4**	77.4	86.5	**6.2***	3.7	10.3
All rural males	**10.7**	9.0	12.6	**82.3**	79.8	84.5	**5.6**	4.3	7.2
All Victorian males	**14.7**	**12.9**	**16.6**	**81.0**	**78.9**	**82.9**	**3.3**	**2.5**	**4.2**
FEMALES									
Eastern Metropolitan	**20.0**	16.5	24.1	**76.8**	72.6	80.6	**2.8***	1.6	5.0
North & West Metropolitan	**25.9**	22.6	29.6	**69.9**	66.1	73.5	**2.8***	1.7	4.6
Southern Metropolitan	**22.9**	19.5	26.7	**73.4**	69.4	77.0	**3.0**	1.8	4.9
All metropolitan females	**23.1**	21.1	25.3	**73.0**	70.7	75.2	**2.9**	2.2	4.0
Barwon-South Western	**22.3**	18.3	26.9	**74.4**	69.8	78.6	**2.8**	1.8	4.3
Gippsland	**22.2**	18.6	26.2	**70.8**	66.0	75.2	**5.8**	3.6	9.1
Grampians	**14.7**	11.6	18.4	**79.9**	75.6	83.7	**3.0***	1.6	5.5
Hume	**23.7**	19.3	28.7	**71.8**	66.5	76.6	**3.7***	1.7	7.7
Loddon Mallee	**21.1**	18.0	24.5	**75.1**	71.3	78.5	**1.6***	0.9	2.7
All rural females	**21.1**	19.3	22.9	**74.2**	72.2	76.2	**3.2**	2.5	4.2
All Victorian females	**22.6**	**21.0**	**24.3**	**73.3**	**71.5**	**75.1**	**3.0**	**2.4**	**3.8**

[a] Long-term risk of alcohol-related harm refers to the increased risk of developing various cancers, cirrhosis of the liver, cognitive problems and dementia, and alcohol dependence.
Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Alcohol consumption, by selected risk factors

Table 2.17 shows that males and females who consumed alcohol at levels commensurate with being at risk of long-term alcohol-related harm were more likely to have very high psychological distress and /or be current smokers.

There were no notable findings among males who were abstainers, however, females who were abstainers were more likely to have very high levels of psychological distress, be sedentary, a non-smoker, and/or rate their health status as fair or poor. While these observations seem counterintuitive, it should be remembered that an 'abstainer' includes both persons who reported that they had had a drink in the past 12 months but no longer drank (recent abstainers) as well as those who had not had a drink in the past 12 months.

Table 2.17 Long-term risk[(a)] of alcohol-related harm, by selected risk factors, 2010

	Abstainer			Low risk[a]			Risky or high risk[a]		
		95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL
MALES	**14.7**	**12.9**	**16.6**	**81.0**	**78.9**	**82.9**	**3.3**	**2.5**	**4.2**
Psychological distress[b]									
Low (< 16)	**12.5**	10.6	14.8	**83.8**	81.4	85.9	**2.5**	1.9	3.3
Moderate (16 to 21)	**16.7**	12.9	21.3	**77.6**	72.7	81.8	**4.7**	3.0	7.2
High (22 to 29)	**19.4**	13.4	27.2	**76.2**	68.1	82.7	**4.2***	1.8	9.4
Very high (>= 30)	**16.2**	12.3	21.0	**57.7**	49.4	65.7	**10.6***	5.2	20.5
Physical activity[c]									
Sedentary	**13.5**	9.1	19.4	**80.1**	73.1	85.6	**6.2***	3.1	12.0
Insufficient time & sessions	**16.7**	13.5	20.6	**79.6**	75.6	83.1	**2.5**	1.7	3.7
Sufficient time & sessions	**13.2**	11.1	15.6	**82.6**	80.0	84.9	**3.4**	2.4	4.8
Met fruit / vegetable guidelines[d]									
Both guidelines	**15.4**	10.6	21.7	**66.7**	61.0	71.9	**3.8***	1.7	8.3
Vegetable guidelines	**17.8**	13.0	24.0	**77.9**	72.1	82.8	**3.3***	1.4	7.6
Fruit guidelines	**16.0**	13.4	18.9	**81.2**	78.1	83.9	**2.1**	1.4	3.2
Neither	**13.4**	11.1	16.1	**81.2**	78.2	83.8	**4.2**	3.1	5.8
Diabetes (excluding GDM)									
No	**13.9**	12.2	15.9	**81.6**	79.4	83.5	**3.3**	2.6	4.3
Yes	**14.3**	10.5	19.1	**62.8**	58.3	67.0	**1.0***	0.4	2.4
Smoking status									
Current smoker	**13.8**	10.3	18.2	**75.2**	70.4	79.4	**6.5**	4.5	9.3
Ex-smoker	**8.9**	6.2	12.5	**86.6**	82.7	89.7	**3.8**	2.4	5.9
Non-smoker	**18.8**	16.2	21.7	**78.8**	75.7	81.5	**1.9***	1.1	3.1
Self-reported health									
Excellent or very good	**14.1**	11.7	16.8	**83.0**	80.1	85.5	**2.3**	1.6	3.4
Good	**14.1**	11.2	17.7	**81.5**	77.8	84.6	**3.2**	2.2	4.5
Fair or poor	**17.3**	12.9	22.8	**74.0**	67.8	79.4	**5.6***	3.2	9.6
Body weight status[e]									
Underweight	**	**	**	**44.2**	39.8	48.7	**0.0**	0.0	0.0
Normal	**16.0**	13.0	19.5	**80.4**	76.8	83.6	**3.2**	2.2	4.8
Overweight	**13.1**	10.3	16.5	**83.1**	79.4	86.3	**2.8***	1.7	4.5
Obese	**16.5**	12.5	21.4	**78.8**	73.5	83.2	**3.8***	2.2	6.5
FEMALES	**22.6**	**21.0**	**24.3**	**73.3**	**71.5**	**75.1**	**3.0**	**2.4**	**3.8**
Psychological distress[b]									
Low (< 16)	**19.8**	17.9	22.0	**77.0**	74.8	79.0	**2.4**	1.9	3.2
Moderate (16 to 21)	**24.2**	20.9	27.8	**69.9**	65.9	73.7	**3.8***	2.2	6.5
High (22 to 29)	**26.3**	21.0	32.4	**70.5**	64.2	76.1	**3.1***	1.4	7.0
Very high (>= 30)	**36.8**	29.0	45.3	**51.0**	42.4	59.5	**7.7***	4.3	13.5
Physical activity[c]									
Sedentary	**36.1**	29.1	43.9	**56.4**	47.8	64.6	**	**	**
Insufficient time & sessions	**26.1**	23.1	29.5	**69.8**	66.4	73.1	**2.7**	1.9	3.8
Sufficient time & sessions	**18.9**	17.0	21.0	**77.0**	74.6	79.2	**2.9**	2.1	4.0
Met fruit / vegetable guidelines[d]									
Both guidelines	**25.6**	19.5	32.9	**71.6**	64.2	78.0	**1.8***	0.9	3.7
Vegetable guidelines only	**22.0**	17.7	27.1	**73.1**	66.7	78.6	**4.2***	1.7	9.9
Fruit guidelines only	**23.9**	21.6	26.4	**73.0**	70.3	75.4	**2.1**	1.4	3.2
Neither	**21.4**	19.1	23.9	**73.8**	71.2	76.3	**3.9**	3.0	5.2
Diabetes (excluding GDM)									
No	**22.2**	20.5	23.9	**73.7**	71.9	75.5	**3.1**	2.4	3.9
Yes	**25.2**	17.8	34.4	**53.5**	44.7	62.0	**	**	**
Smoking status									
Current smoker	**19.8**	16.3	23.9	**70.2**	65.6	74.5	**5.6**	4.0	8.0
Ex-smoker	**15.5**	12.8	18.6	**78.6**	74.2	82.4	**5.4***	3.0	9.5
Non-smoker	**26.9**	24.6	29.2	**71.0**	68.6	73.3	**1.4**	0.9	2.2
Self-reported health									
Excellent or very good	**18.8**	16.6	21.2	**77.6**	75.0	79.9	**2.7**	1.9	3.9
Good	**24.4**	21.7	27.2	**71.8**	68.8	74.6	**3.3**	2.3	4.6
Fair or poor	**29.4**	25.1	34.1	**64.7**	59.6	69.4	**3.2***	1.9	5.5
Body weight status[e]									
Underweight	**34.1**	24.3	45.5	**63.2**	51.8	73.3	**	**	**
Normal	**20.1**	17.9	22.6	**75.9**	73.3	78.4	**3.0**	2.1	4.2
Overweight	**20.9**	18.1	24.0	**75.7**	72.5	78.6	**3.0**	2.0	4.4
Obese	**22.4**	19.0	26.2	**74.3**	70.2	77.9	**2.6***	1.4	4.5

[a] Long-term risk of alcohol-related harm refers to the increased risk of developing various cancers, cirrhosis of the liver, cognitive problems and dementia, and alcohol dependence.
[b] Based on the Kessler 10 scale for psychological distress.
[c] Based on National Guidelines (DoHA, 1999).
[d] Based on National Guidelines (NHMRC, 2003).
[e] Based on Body Mass Index (BMI).

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE greater than 50 per cent and is not reported as it is unreliable for general use.

Trend over time

The proportions of males and females at risk of long-term alcohol-related harm did not change significantly between 2003 and 2010 (Table 2.18).

Table 2.18 Long-term risk[(a)] of alcohol-related harm, 2003-2010

	2003			2004			2005			2006			2007			2008			2009			2010		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI	
MALES		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL
Abstainer	**12.8**	11.3	14.6	**12.9**	11.3	14.6	**15.4**	13.7	17.4	**12.1**	10.6	13.8	**13.7**	12.0	15.6	**12.6**	11.7	13.5	**14.2**	12.6	15.9	**14.7**	12.9	16.6
Low risk	**82.2**	80.2	83.9	**81.0**	79.1	82.8	**79.9**	77.8	81.8	**82.1**	80.1	83.9	**81.4**	79.3	83.3	**82.2**	81.1	83.2	**79.9**	78.0	81.7	**81.0**	78.9	82.9
Risky or high risk	**4.4**	3.6	5.4	**5.0**	4.0	6.1	**4.3**	3.5	5.2	**5.0**	4.0	6.2	**4.2**	3.4	5.3	**4.3**	3.8	4.9	**4.7**	3.9	5.7	**3.3**	2.5	4.2
FEMALES																								
Abstainer	**22.8**	21.2	24.4	**22.0**	20.5	23.7	**22.2**	20.6	23.9	**21.8**	20.2	23.5	**22.8**	21.2	24.6	**23.0**	22.2	23.9	**23.6**	22.1	25.2	22.6	21.0	24.3
Low risk	**74.0**	72.3	75.7	**74.6**	72.9	76.3	**74.3**	72.5	76.0	**73.8**	71.9	75.5	**74.0**	72.2	75.8	**73.2**	72.2	74.1	**71.8**	70.1	73.4	**73.3**	71.5	75.1
Risky or high risk	**2.4**	1.8	3.2	**2.7**	2.2	3.4	**3.1**	2.5	3.9	**3.6**	2.9	4.5	**2.4**	1.9	2.9	**3.1**	2.7	3.4	**3.5**	2.8	4.4	**3.0**	2.4	3.8
PERSONS																								
Abstainer	**18.2**	17.0	19.4	**17.6**	16.5	18.7	**18.9**	17.7	20.2	**17.2**	16.0	18.4	**18.5**	17.2	19.8	**18.0**	17.4	18.6	**19.1**	18.0	20.3	18.9	17.6	20.1
Low risk	**77.8**	76.5	79.0	**77.7**	76.5	79.0	**77.0**	75.6	78.3	**77.7**	76.4	79.0	**77.6**	76.2	78.9	**77.5**	76.8	78.2	**75.7**	74.4	76.9	**77.0**	75.6	78.3
Risky or high risk	**3.3**	2.8	3.9	**3.8**	3.3	4.4	**3.7**	3.2	4.3	**4.3**	3.7	5.0	**3.3**	2.8	3.9	**3.7**	3.3	4.0	**4.1**	3.5	4.7	**3.1**	2.6	3.7

[a] Refers to consumption patterns that put individuals at long-term risk of alcohol-related harm.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Smoking

Current smokers were defined as those persons who reported smoking tobacco daily or occasionally. Table 2.19 shows smoking status, by age group and sex. In 2010, 17.8 per cent of adult males and 15.8 per cent of adult females were current smokers. Males aged 25–34 years (23.9 per cent) had the highest prevalence of current smoking, followed by males aged 35–44 years (22.5 per cent). By contrast, females aged 18-24 years (21.7 per cent) had the highest prevalence of current smoking, followed by females aged 25-34 years. The prevalence of current smoking declined with age in both sexes, with the lowest prevalence being in males (5.3 per cent) and females (6.5 per cent) aged 65 years and over.

Table 2.19 Smoking status, by age group and sex, 2010

Age group (years)	Current smoker	95% CI		Ex-smoker	95% CI		Non-smoker	95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**21.7**	14.6	31.2	**4.9***	2.0	11.2	**73.4**	63.6	81.3
25-34	**23.9**	18.3	30.7	**24.9**	19.1	31.8	**51.1**	43.8	58.5
35-44	**22.5**	18.4	27.2	**27.1**	22.6	32.1	**50.4**	45.1	55.7
45-54	**16.7**	13.7	20.3	**32.8**	28.6	37.2	**50.2**	45.6	54.8
55-64	**16.3**	13.0	20.3	**40.8**	36.2	45.6	**42.6**	37.9	47.4
65+	**5.3**	3.8	7.4	**57.7**	53.5	61.8	**36.8**	32.9	40.9
All males	**17.8**	**15.9**	**19.9**	**32.2**	**30.1**	**34.3**	**49.9**	**47.4**	**52.3**
FEMALES									
18-24	**21.7**	15.4	29.8	**8.0***	4.4	14.1	**70.3**	61.8	77.6
25-34	**19.5**	15.2	24.6	**21.0**	16.6	26.1	**59.6**	53.6	65.2
35-44	**17.2**	14.4	20.4	**26.2**	22.9	29.9	**56.4**	52.4	60.3
45-54	**17.5**	14.8	20.5	**29.1**	25.8	32.7	**52.9**	49.1	56.6
55-64	**12.0**	9.7	14.8	**25.5**	22.4	29.0	**62.2**	58.4	65.9
65+	**6.5**	5.0	8.5	**25.9**	23.0	28.9	**66.7**	63.4	69.8
All females	**15.8**	**14.3**	**17.4**	**23.1**	**21.6**	**24.7**	**60.8**	**58.8**	**62.7**
PERSONS									
18-24	**21.7**	16.7	27.8	**6.4***	3.9	10.3	**71.9**	65.5	77.5
25-34	**21.7**	18.1	25.9	**22.9**	19.2	27.2	**55.3**	50.6	60.0
35-44	**19.8**	17.3	22.6	**26.6**	23.8	29.7	**53.4**	50.1	56.7
45-54	**17.1**	15.0	19.4	**30.9**	28.3	33.8	**51.5**	48.6	54.5
55-64	**14.2**	12.1	16.5	**33.1**	30.2	36.0	**52.6**	49.5	55.6
65+	**5.9**	4.8	7.3	**40.2**	37.6	42.8	**53.3**	50.6	55.9
All persons	**16.8**	**15.5**	**18.1**	**27.3**	**26.0**	**28.6**	**55.7**	**54.1**	**57.3**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

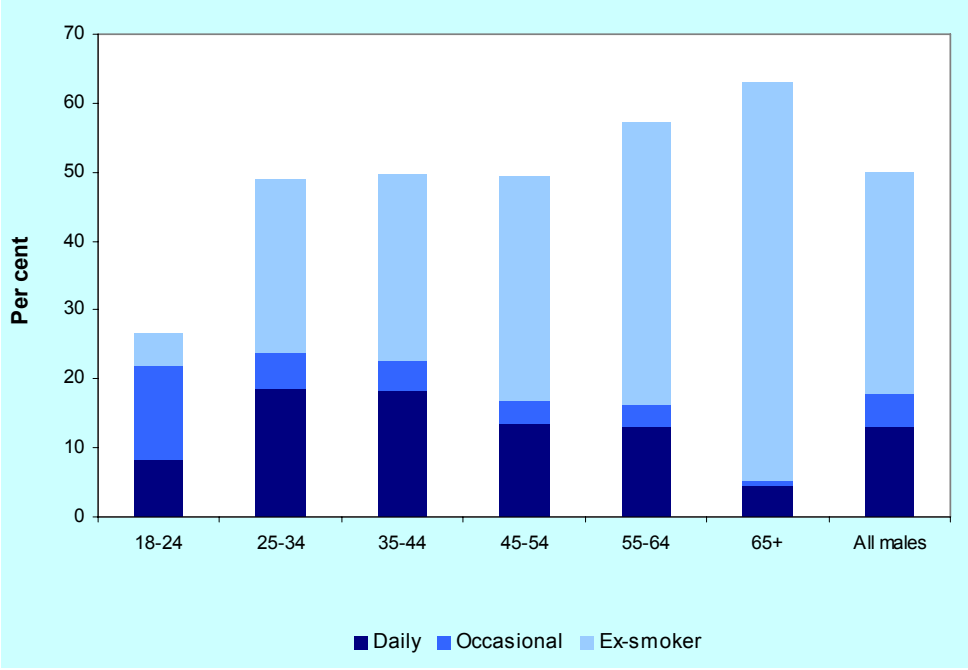
Table 2.20 and Figures 2.3a and 2.3b show the proportion of persons who smoked tobacco on a daily or occasional basis, by age and sex. Most persons who were current smokers smoked on a daily basis (12.4 per cent), while 4.4 per cent smoked occasionally. There was no difference in the proportions of daily or occasional smokers between males and females.

Table 2.20 Frequency of current smoking behaviour, by age group and sex, 2010

Age group	Daily			Occasional			Ex-smoker			Non-smoker		
(years)		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**8.4***	4.4	15.3	**13.4***	7.7	22.3	**4.9***	2.0	11.2	**73.4**	63.6	81.3
25-34	**18.5**	13.5	24.9	**5.4***	3.0	9.5	**24.9**	19.1	31.8	**51.1**	43.8	58.5
35-44	**18.3**	14.6	22.8	**4.2***	2.5	6.9	**27.1**	22.6	32.1	**50.4**	45.1	55.7
45-54	**13.5**	10.8	16.8	**3.2***	2.0	5.3	**32.8**	28.6	37.2	**50.2**	45.6	54.8
55-64	**13.0**	10.1	16.7	**3.3***	1.9	5.7	**40.8**	36.2	45.6	**42.6**	37.9	47.4
65+	**4.5**	3.1	6.5	**	**	**	**57.7**	53.5	61.8	**36.8**	32.9	40.9
All males	**13.0**	**11.4**	**14.8**	**4.8**	**3.7**	**6.2**	**32.2**	**30.1**	**34.3**	**49.9**	**47.4**	**52.3**
FEMALES												
18-24	**13.1**	8.3	20.2	**8.6***	4.8	14.9	**8.0***	4.4	14.1	**70.3**	61.8	77.6
25-34	**13.3**	9.7	17.8	**6.2**	3.9	9.8	**21.0**	16.6	26.1	**59.6**	53.6	65.2
35-44	**13.6**	11.1	16.6	**3.6**	2.4	5.4	**26.2**	22.9	29.9	**56.4**	52.4	60.3
45-54	**15.1**	12.6	17.9	**2.4**	1.5	3.9	**29.1**	25.8	32.7	**52.9**	49.1	56.6
55-64	**9.6**	7.6	12.2	**2.4***	1.4	4.0	**25.5**	22.4	29.0	**62.2**	58.4	65.9
65+	**5.6**	4.2	7.4	**0.9***	0.4	1.9	**25.9**	23.0	28.9	**66.7**	63.4	69.8
All females	**11.9**	**10.6**	**13.3**	**3.9**	**3.1**	**5.0**	**23.1**	**21.6**	**24.7**	**60.8**	**58.8**	**62.7**
PERSONS												
18-24	**10.7**	7.3	15.3	**11.1**	7.4	16.3	**6.4***	3.9	10.3	**71.9**	65.5	77.5
25-34	**15.9**	12.7	19.7	**5.8**	4.0	8.3	**22.9**	19.2	27.2	**55.3**	50.6	60.0
35-44	**15.9**	13.6	18.5	**3.9**	2.8	5.4	**26.6**	23.8	29.7	**53.4**	50.1	56.7
45-54	**14.3**	12.4	16.4	**2.8**	2.0	4.0	**30.9**	28.3	33.8	**51.5**	48.6	54.5
55-64	**11.3**	9.5	13.5	**2.8**	1.9	4.2	**33.1**	30.2	36.0	**52.6**	49.5	55.6
65+	**5.1**	4.1	6.4	**0.8***	0.4	1.5	**40.2**	37.6	42.8	**53.3**	50.6	55.9
All persons	**12.4**	**11.4**	**13.5**	**4.4**	**3.7**	**5.3**	**27.3**	**26.0**	**28.6**	**55.7**	**54.1**	**57.3**

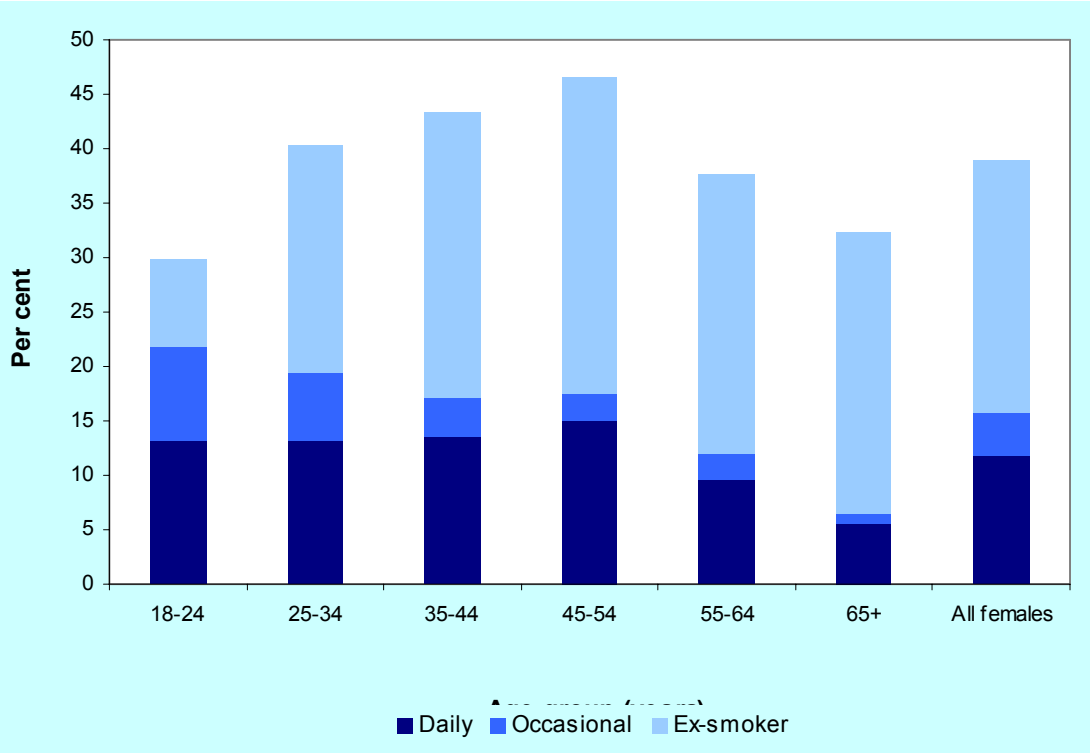
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE greater than 50 per cent and is not reported as it is unreliable for general use.

Figure 2.3a Frequency of current smoking behaviour in males, by age group, 2010



Data are crude estimates, except for all males which were age-standardised to the 2006 Victorian population.

Figure 2.3b. Frequency of current smoking behaviour in females, by age group, 2010



Data are crude estimates, except for all females which were age-standardised to the 2006 Victorian population.

Table 2.21 shows smoking status by sex and Department of Health region.

There were no regional differences in the prevalence of current smoking, with the exception of females who resided in Grampians Region who had a higher prevalence (22.3 per cent) compared with all Victorian females (15.8 per cent). There were also no differences between the sexes in the prevalence of current smokers, with the exception of males who resided in Southern Metropolitan Region who had a higher prevalence of current smoking (21.9 per cent) compared with their female counterparts (13.0 per cent).

Table 2.21 Smoking status, by Department of Health region and sex, 2010

	Current smoker			Ex-smoker			Non-smoker		
		95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
Eastern Metropolitan	**13.7**	9.9	18.5	**28.2**	23.8	33.1	**57.9**	52.1	63.5
North & West Metropolitan	**15.3**	11.8	19.6	**36.2**	31.7	40.9	**48.3**	43.3	53.3
Southern Metropolitan	**21.9**	17.4	27.2	**30.3**	26.3	34.7	**47.8**	42.3	53.3
All metropolitan males	**16.9**	14.5	19.6	**32.5**	29.9	35.2	**50.5**	47.4	53.6
Barwon-South Western	**16.7**	12.4	22.2	**26.9**	22.6	31.6	**56.4**	50.6	62.0
Gippsland	**21.2**	15.5	28.3	**38.4**	32.9	44.3	**40.4**	33.5	47.7
Grampians	**24.9**	19.6	31.1	**31.4**	26.5	36.8	**43.7**	37.3	50.2
Hume	**25.0**	19.1	32.1	**32.8**	27.4	38.7	**41.7**	35.2	48.5
Loddon Mallee	**19.4**	15.4	24.2	**31.1**	25.8	37.0	**49.4**	43.5	55.3
All rural males	**20.6**	18.0	23.4	**31.6**	29.2	34.1	**47.7**	44.7	50.8
All Victorian males	**17.8**	**15.9**	**19.9**	**32.2**	**30.1**	**34.3**	**49.9**	**47.4**	**52.3**
FEMALES									
Eastern Metropolitan	**14.3**	11.0	18.3	**22.5**	18.9	26.5	**62.5**	57.8	67.0
North & West Metropolitan	**17.8**	14.7	21.5	**21.5**	18.6	24.8	**60.5**	56.4	64.5
Southern Metropolitan	**13.0**	10.4	16.2	**24.2**	20.7	28.2	**62.7**	58.4	66.9
All metropolitan females	**15.5**	13.6	17.6	**22.5**	20.6	24.6	**61.8**	59.2	64.2
Barwon-South Western	**13.0**	9.8	17.1	**24.6**	21.2	28.3	**62.0**	57.3	66.5
Gippsland	**17.6**	14.0	22.0	**28.4**	23.9	33.4	**53.2**	48.0	58.4
Grampians	**22.3**	18.0	27.3	**22.7**	18.7	27.3	**54.5**	49.2	59.8
Hume	**18.6**	14.4	23.7	**25.6**	21.4	30.3	**55.4**	50.2	60.6
Loddon Mallee	**17.5**	14.0	21.6	**24.2**	20.6	28.1	**57.8**	53.2	62.3
All rural females	**17.0**	15.2	19.0	**25.0**	23.2	26.9	**57.5**	55.2	59.8
All Victorian females	**15.8**	**14.3**	**17.4**	**23.1**	**21.6**	**24.7**	**60.8**	**58.8**	**62.7**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Table 2.22 shows the frequency of smoking, by sex and Department of Health region. There were no regional differences in the prevalence of daily or occasional smoking, with the exception of males who resided in Grampians Region who had a higher prevalence of daily smoking (22.2 per cent) compared with all Victorian males (13.0 per cent).

Table 2.22 Frequency of current smoking behaviour, by Department of Health region and sex, 2010

	Daily			Occasional			Ex-smoker			Non-smoker		
		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
Eastern Metropolitan	**9.4**	6.5	13.2	**4.3***	2.1	8.5	**28.2**	23.8	33.1	**57.9**	52.1	63.5
North & West Metropolitan	**12.3**	9.2	16.2	**3.1***	1.7	5.6	**36.2**	31.7	40.9	**48.3**	43.3	53.3
Southern Metropolitan	**14.1**	10.8	18.2	**7.8**	5.0	12.0	**30.3**	26.3	34.7	**47.8**	42.3	53.3
All metropolitan males	**12.0**	10.1	14.2	**4.9**	3.6	6.8	**32.5**	29.9	35.2	**50.5**	47.4	53.6
Barwon-South Western	**13.0**	9.1	18.1	**3.8***	1.8	7.6	**26.9**	22.6	31.6	**56.4**	50.6	62.0
Gippsland	**12.7**	8.7	18.2	**8.5***	4.6	15.2	**38.4**	32.9	44.3	**40.4**	33.5	47.7
Grampians	**22.2**	17.2	28.2	**2.7***	1.3	5.5	**31.4**	26.5	36.8	**43.7**	37.3	50.2
Hume	**19.3**	14.1	25.8	**5.7***	2.7	11.7	**32.8**	27.4	38.7	**41.7**	35.2	48.5
Loddon Mallee	**16.0**	12.3	20.5	**3.5***	1.9	6.2	**31.1**	25.8	37.0	**49.4**	43.5	55.3
All rural males	**15.7**	13.5	18.1	**4.9**	3.5	6.8	**31.6**	29.2	34.1	**47.7**	44.7	50.8
All Victorian males	**13.0**	**11.4**	**14.8**	**4.8**	**3.7**	**6.2**	**32.2**	**30.1**	**34.3**	**49.9**	**47.4**	**52.3**
FEMALES												
Eastern Metropolitan	**11.3**	9.7	13.2	**4.1**	3.1	5.5	**22.5**	20.6	24.6	**61.8**	59.2	64.2
North & West Metropolitan	**9.1**	6.7	12.3	**5.2***	3.1	8.4	**22.5**	18.9	26.5	**62.5**	57.8	67.0
Southern Metropolitan	**13.8**	11.0	17.1	**4.0**	2.5	6.4	**21.5**	18.6	24.8	**60.5**	56.4	64.5
All metropolitan females	**9.5**	7.3	12.2	**3.5**	2.2	5.7	**24.2**	20.7	28.2	**62.7**	58.4	66.9
Barwon-South Western	**11.3**	8.3	15.2	**1.7***	0.8	3.8	**24.6**	21.2	28.3	**62.0**	57.3	66.5
Gippsland	**14.3**	11.3	18.0	**3.3***	1.6	6.7	**28.4**	23.9	33.4	**53.2**	48.0	58.4
Grampians	**16.3**	12.9	20.5	**6.0***	3.5	10.0	**22.7**	18.7	27.3	**54.5**	49.2	59.8
Hume	**15.7**	11.8	20.6	**2.9***	1.5	5.4	**25.6**	21.4	30.3	**55.4**	50.2	60.6
Loddon Mallee	**13.9**	10.8	17.8	**3.6***	2.0	6.1	**24.2**	20.6	28.1	**57.8**	53.2	62.3
All rural females	**13.6**	12.0	15.4	**3.4**	2.5	4.6	**25.0**	23.2	26.9	**57.5**	55.2	59.8
All Victorian females	**11.9**	**10.6**	**13.3**	**3.9**	**3.1**	**5.0**	**23.1**	**21.6**	**24.7**	**60.8**	**58.8**	**62.7**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Smoking status, by selected risk factors

Table 2.23 shows smoking status in males and females, by selected risk factors. Males and females who were current smokers were more likely to have high or very high levels of psychological distress and/or to consume alcohol at levels commensurate with being at risk of long-term alcohol-related harm. Males who were current smokers were also more likely to be sedentary, while females were also more likely to meet neither guideline for fruit and vegetable consumption, to report being in fair or poor health, and/or to be underweight.

Table 2.23 Smoking status, by selected risk factors and sex, 2010

	Current smoker			Ex-smoker			Non-smoker		
		95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL
MALES	**17.8**	**15.9**	**19.9**	**32.2**	**30.1**	**34.3**	**49.9**	**47.4**	**52.3**
Psychological distress [a]									
Low (< 16)	**16.0**	13.8	18.6	**31.2**	28.8	33.7	**52.6**	49.6	55.5
Moderate (16 to 21)	**17.6**	14.0	21.9	**35.9**	30.9	41.3	**46.4**	41.0	52.0
High (22 to 29)	**29.5**	21.9	38.3	**32.6**	25.7	40.4	**37.9**	30.3	46.3
Very high (>= 30)	**42.4**	35.2	50.0	**23.9**	18.2	30.7	**18.2**	11.1	28.4
Physical activity [b]									
Sedentary	**38.9**	29.9	48.7	**33.9**	25.4	43.5	**27.2**	20.9	34.5
Insufficient time & sessions	**18.5**	14.4	23.4	**31.3**	27.4	35.5	**50.2**	45.0	55.4
Sufficient time & sessions	**16.2**	13.9	18.9	**32.5**	29.8	35.2	**51.1**	47.9	54.3
Met fruit / vegetable guidelines [c]									
Both guidelines	**11.3***	5.6	21.4	**25.5**	18.7	33.9	**50.2**	40.3	60.0
Vegetable guidelines	**19.9**	14.9	26.2	**29.6**	22.3	38.0	**50.4**	41.7	59.0
Fruit guidelines	**14.6**	11.9	17.9	**32.3**	29.3	35.6	**52.8**	49.1	56.4
Neither	**19.6**	17.0	22.4	**32.2**	29.4	35.1	**48.2**	44.9	51.6
Diabetes (excluding GDM)									
No	**17.7**	15.8	19.9	**31.9**	29.8	34.1	**50.2**	47.7	52.7
Yes	**12.9***	7.6	21.1	**28.2**	21.5	36.1	**37.0**	29.8	44.8
Alcohol use [d]									
Abstainer	**14.6**	10.4	20.1	**20.6**	16.4	25.7	**64.8**	58.5	70.6
Low risk	**17.3**	15.2	19.7	**33.8**	31.6	36.2	**48.7**	46.0	51.4
Risky or high risk	**35.4**	27.7	43.9	**35.7**	26.8	45.7	**28.9**	21.5	37.5
Self-reported health									
Excellent or very good	**12.2**	9.9	14.9	**30.8**	27.8	34.0	**56.9**	53.4	60.4
Good	**21.9**	18.5	25.8	**32.7**	29.3	36.3	**45.1**	41.0	49.3
Fair or poor	**24.1**	18.4	30.8	**33.6**	28.8	38.9	**42.3**	35.7	49.2
Body weight status [e]									
Underweight	**	**	**	**11.2**	7.2	17.0	**32.6**	28.4	37.0
Normal	**19.0**	15.9	22.5	**28.5**	25.2	32.1	**52.3**	48.2	56.3
Overweight	**18.0**	14.7	21.8	**32.2**	28.9	35.7	**49.8**	45.6	54.0
Obese	**13.3**	9.9	17.8	**36.8**	32.3	41.5	**49.6**	44.6	54.6
FEMALES	**15.8**	**14.3**	**17.4**	**23.1**	**21.6**	**24.7**	**60.8**	**58.8**	**62.7**
Psychological distress [a]									
Low (< 16)	**12.2**	10.5	14.2	**23.9**	22.0	26.0	**63.6**	61.1	66.0
Moderate (16 to 21)	**17.8**	14.6	21.6	**24.8**	21.4	28.4	**57.2**	52.9	61.3
High (22 to 29)	**27.7**	21.9	34.4	**18.3**	14.1	23.3	**53.3**	46.6	60.0
Very high (>= 30)	**31.3**	24.2	39.4	**24.5**	17.9	32.6	**42.0**	33.7	50.8
Physical activity [b]									
Sedentary	**14.2**	9.4	20.9	**17.7**	12.3	24.7	**64.0**	55.8	71.6
Insufficient time & sessions	**17.0**	14.1	20.2	**21.7**	19.1	24.5	**61.1**	57.4	64.6
Sufficient time & sessions	**15.0**	13.0	17.1	**24.9**	22.6	27.3	**59.9**	57.2	62.6
Met fruit / vegetable guidelines [c]									
Both guidelines	**16.3**	11.2	23.1	**20.1**	15.6	25.4	**63.5**	56.3	70.2
Vegetable guidelines	**17.0**	12.0	23.5	**22.4**	17.4	28.2	**60.5**	53.1	67.6
Fruit guidelines	**10.7**	8.9	13.0	**23.3**	21.1	25.6	**65.6**	62.8	68.3
Neither	**22.3**	19.8	25.0	**23.1**	20.9	25.5	**54.2**	51.2	57.2
Diabetes (excluding GDM)									
No	**15.9**	14.3	17.6	**23.1**	21.6	24.7	**60.7**	58.7	62.7
Yes	**8.1***	4.4	14.3	**19.1**	14.4	24.8	**57.4**	47.8	66.5
Alcohol use [d]									
Abstainer	**11.7**	9.4	14.6	**14.3**	11.8	17.3	**73.9**	70.2	77.2
Low risk	**15.6**	13.9	17.5	**25.1**	23.3	27.0	**58.9**	56.6	61.2
Risky or high risk	**30.6**	21.5	41.5	**37.5**	29.0	46.7	**28.8**	21.0	38.1
Self-reported health									
Excellent or very good	**10.9**	9.1	13.0	**23.6**	21.4	26.0	**65.2**	62.4	67.9
Good	**17.7**	15.2	20.5	**23.3**	20.8	25.9	**58.8**	55.5	62.0
Fair or poor	**26.8**	22.4	31.7	**20.9**	17.4	24.8	**51.7**	46.5	56.9
Body weight status [e]									
Underweight	**27.1**	18.9	37.1	**13.9**	8.7	21.4	**58.0**	47.5	67.9
Normal	**13.6**	11.7	15.8	**21.6**	19.4	24.0	**64.5**	61.6	67.2
Overweight	**16.6**	13.2	20.5	**24.8**	21.6	28.3	**58.4**	54.0	62.7
Obese	**21.1**	17.4	25.5	**24.4**	20.9	28.2	**54.3**	49.4	59.2

[a] Based on the Kessler 10 scale for psychological distress

[b] Based on National Guidelines (DoHA, 1999)
[c] Based on National Guidelines (NHMRC, 2001)
[d] Based on National Guidelines (NHMRC, 2003). The four categories are not mutually exclusive
[e] Based on Body Mass Index (BMI)
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE greater than 50 per cent and is not reported as it is unreliable for general use.

Trend over time

There was a significant decline in the proportion of males and females who were current smokers between 2003 and 2010 (Table 2.24).

Table 2.24 Prevalence of current smoking, by sex, 2003-2010

	2003			2004			2005			2006			2007			2008			2009			2010		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL			
Males	**24.0**	22.1	26.0	**24.1**	22.1	26.2	**21.8**	19.8	23.9	**22.3**	20.2	24.5	**21.7**	19.6	23.9	**21.4**	20.2	22.6	**20.0**	18.2	21.9	**17.8**	15.9	19.9
Females	**20.2**	18.7	21.8	**19.8**	18.4	21.3	**19.1**	17.6	20.8	**18.5**	17.0	20.1	**18.1**	16.5	19.7	**16.9**	16.1	17.8	**17.0**	15.6	18.5	**15.8**	14.3	17.4
Persons	**22.1**	20.9	23.3	**22.0**	20.8	23.3	**20.5**	19.2	21.8	**20.4**	19.1	21.8	**19.9**	18.6	21.2	**19.1**	18.4	19.9	**18.5**	17.3	19.7	**16.8**	15.5	18.1

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Physical activity

Physical inactivity is a major modifiable risk factor for a range of conditions, including cardiovascular disease, diabetes, and falls among the elderly. The evidence suggests that health benefits accrue with increasing levels of physical activity, even if adopted in middle and later life, which suggests physical activity is an obvious target for health promotion. Physical activity levels at the population level are relevant for investigating the outcomes of health promotion efforts.

Physical activity to achieve health benefits

Information was collected on three types of physical activity to measure the extent to which the population is engaging in sufficient physical activity to achieve a health benefit and meet the current national guidelines (DoHA, 1999):

- time spent walking (for more than 10 minutes at a time) for recreation or exercise, or to get to and from places
- time spent doing vigorous household chores (excluding gardening)
- time spent doing vigorous activities other than household chores and gardening (for example, tennis, jogging, cycling or keep-fit exercises).

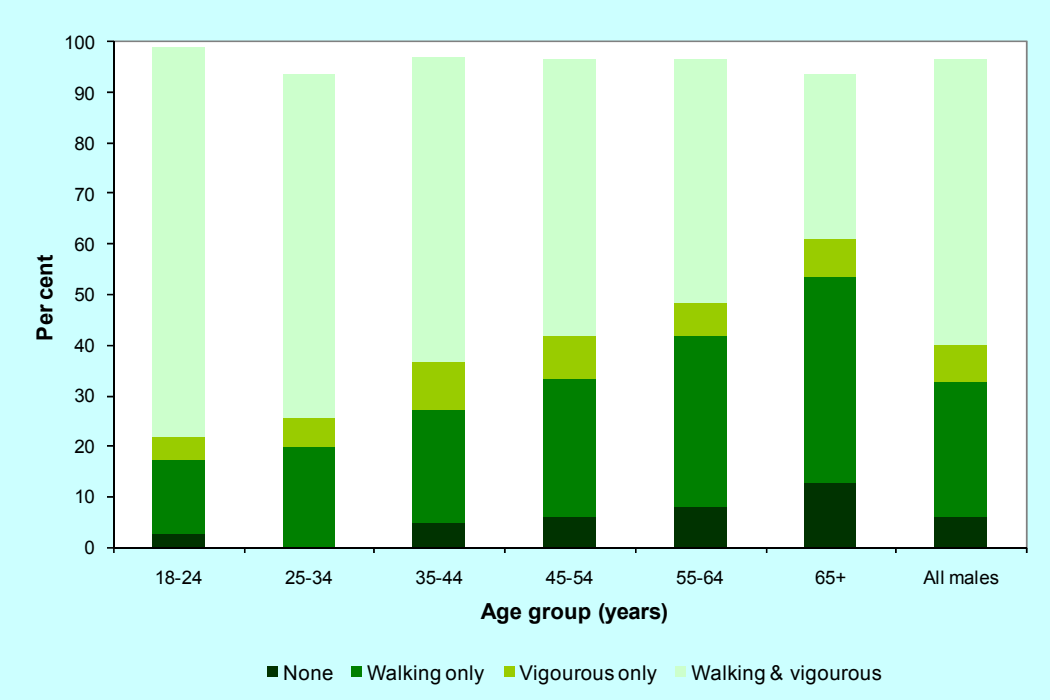
Data were collected on the number of sessions and the duration of each type of physical activity. Table 2.25 and Figures 2.4a and 2.4b show the proportion of persons who were sedentary and those who had undertaken different types of physical activity in the preceding week of the survey, by age and sex. Younger males and females were more likely to engage in a combination of walking and vigorous activity. Among males and females aged 65 years and over, the proportion who engaged in walking as their only form of physical activity was similar to the proportion who engaged in walking and some form of vigorous physical activity.

Table 2.25 Types of physical activity undertaken during the past week, by age group and sex, 2010

Age group	None			Walking only			Vigourous only			Walking & vigourous		
(years)		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**	**	**	14.4*	8.6	23.1	4.9*	1.9	12.2	77.1	67.6	84.5
25-34	2.8*	1.2	6.4	19.9	14.5	26.6	5.6*	3.1	10.1	68.2	60.9	74.7
35-44	4.7	2.9	7.6	22.5	18.3	27.4	9.4	6.8	12.9	60.5	55.2	65.6
45-54	6.0	4.2	8.5	27.4	23.4	31.8	8.5	6.2	11.6	54.6	49.9	59.1
55-64	7.9	5.7	11.0	33.8	29.4	38.6	6.7	4.7	9.3	48.4	43.6	53.2
65+	12.9	10.3	16.0	40.5	36.5	44.7	7.3	5.5	9.8	32.9	29.1	36.9
All males	6.2	5.2	7.3	26.6	24.5	28.8	7.1	6.0	8.4	56.6	54.3	59.0
FEMALES												
18-24	**	**	**	26.9	19.6	35.6	2.9*	1.3	6.7	67.7	58.9	75.4
25-34	2.6*	1.3	5.2	18.0	13.7	23.2	8.0	5.4	11.8	68.7	62.9	73.9
35-44	4.9	3.4	7.0	19.5	16.5	22.8	6.0	4.4	8.1	66.6	62.8	70.3
45-54	6.0	4.3	8.1	24.8	21.6	28.3	5.3	3.8	7.1	60.6	56.8	64.2
55-64	7.5	5.7	9.9	31.4	27.9	35.1	6.3	4.7	8.4	50.2	46.3	54.0
65+	13.6	11.5	16.1	36.4	33.2	39.7	6.8	5.3	8.7	35.3	32.2	38.6
All females	6.2	5.5	7.1	25.7	24.0	27.5	6.1	5.2	7.0	58.2	56.3	60.2
PERSONS												
18-24	2.5*	1.1	5.4	20.5	15.6	26.5	3.9*	2.0	7.7	72.5	66.2	78.1
25-34	2.7*	1.6	4.7	18.9	15.4	23.0	6.8	4.9	9.5	68.4	63.8	72.7
35-44	4.8	3.5	6.4	21.0	18.4	23.9	7.7	6.1	9.6	63.6	60.3	66.8
45-54	6.0	4.7	7.6	26.1	23.5	28.9	6.9	5.4	8.6	57.6	54.6	60.5
55-64	7.7	6.2	9.6	32.6	29.7	35.6	6.5	5.1	8.1	49.3	46.2	52.4
65+	13.3	11.6	15.2	38.2	35.7	40.9	7.0	5.8	8.5	34.2	31.8	36.8
All persons	6.2	5.6	6.9	26.1	24.7	27.5	6.6	5.9	7.4	57.5	55.9	59.0

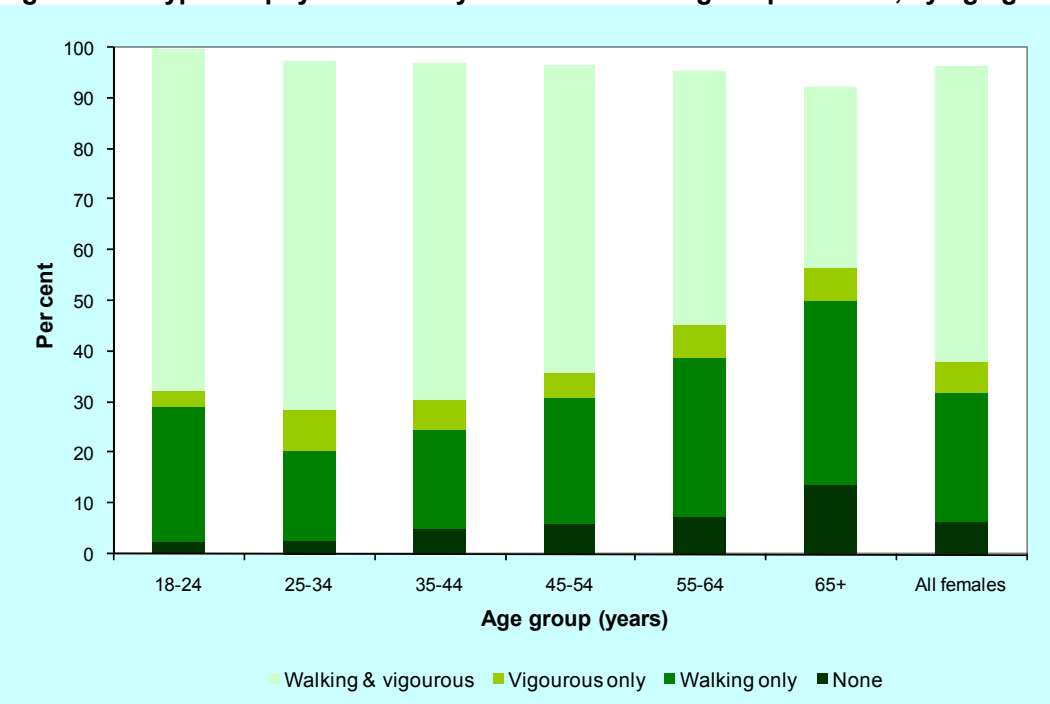
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE greater than 50 per cent and is not reported as it is unreliable for general use.

Figure 2.4a.Types of physical activity undertaken during the past week in males, by age group, 2010



Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for 'all males' which were age-standardised to the 2006 Victorian population.

Figure 2.4b.Types of physical activity undertaken during the past week, by age group, females[a], 2010



Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for 'all females' which were age-standardised to the 2006 Victorian population.

The level of health benefit achieved from physical activity partly depends on the intensity of the activity. In general, to obtain a health benefit from physical activity requires participation in moderate intensity activities (at least). Accruing 150 or more minutes of moderate intensity physical activity (such as walking) on a regular basis over one week is believed to be 'sufficient' for health benefits and is the recommended threshold of physical activity according to the *National physical activity guidelines for Australians* (DoHA 1999).

For those who achieve an adequate baseline level of fitness, extra health benefits may be gained by undertaking at least 30 minutes of regular vigorous exercise on three to four days per week. The sum of the proportion of adults who undertake only vigorous physical activity or walking and vigorous activity sets the upper limit for the proportion of the population who may satisfy both the health benefit and health fitness criteria to meet the guidelines on physical activity. The actual proportion of adults who fulfil both criteria is reduced to the extent that individuals do not spend sufficient time on physical activity and/or do not participate in physical activity regularly. The 'sufficient time and sessions' measure of physical activity is regarded as the preferred indicator of the adequacy of physical activity for a health benefit because it addresses the regularity of the activity undertaken. Under this measure, the requirement to participate in physical activity regularly (that is, on five, preferably seven, days per week) is an accrued 150 or more minutes of at least moderate intensity physical activity.

A person who satisfied both criteria (time and number of sessions) was classified as doing 'sufficient' physical activity to achieve an added health benefit in the analysis that follows (Table 2.26). The number of minutes spent on physical activity was calculated by adding the minutes of moderate intensity activity to two times the minutes of vigorous activity (that is, the minutes of vigorous intensity activity are weighted by a factor of two).

Individuals were classified as doing 'insufficient' physical activity if they reported undertaking physical activity during the week before the survey, but did not accrue 150 minutes and/or did fewer than five sessions. Individuals were considered to be 'sedentary' if they reported no physical activity for the relevant time period. Individuals classified as 'sedentary' or 'insufficient' have been referred to as doing an 'insufficient' amount of physical activity to achieve health benefits.

The *National physical activity guidelines for adults* (DoHA 1999) have been applied to all respondents (persons aged 18 years and over) in previous VPHS reports to provide information about the prevalence of different levels of physical activity, including sufficient physical activity to achieve a health benefit.

Table 2.26 Definition of sufficient physical activity time and sessions per week

Physical activity category	Time and sessions per week
Sedentary	0 minutes
Insufficient time and/or sessions	Less than 150 minutes or 150 or more minutes, but fewer than five sessions
Sufficient time and sessions	150 minutes and five or more sessions

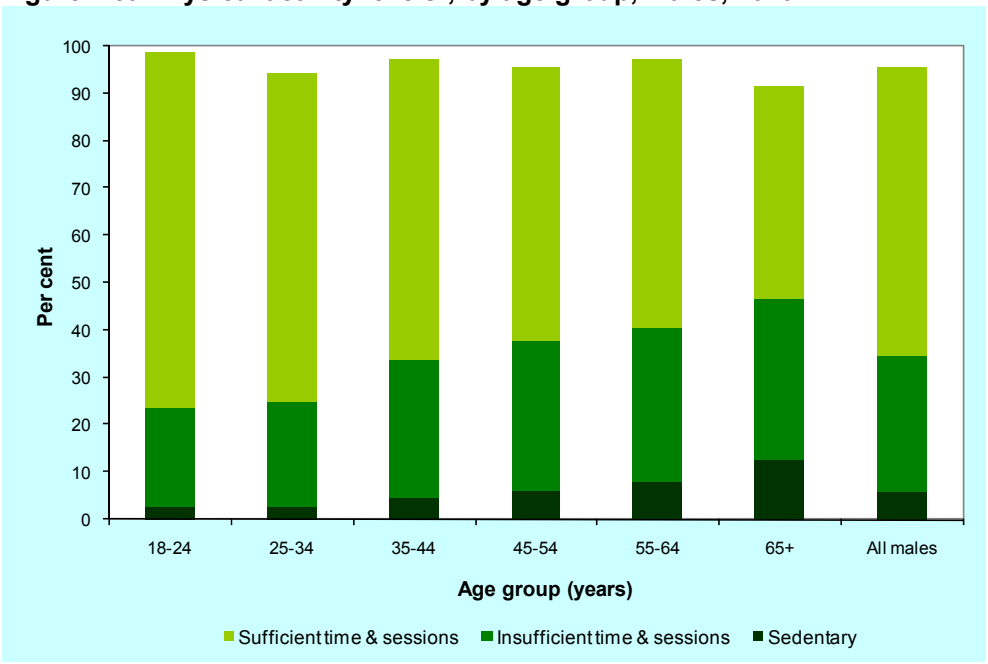
Table 2.27 and Figures 2.5a and 2.5b show physical activity, by level, sex and age group.
Six in 10 persons (59.1 per cent) engaged in sufficient physical activity during the week before the survey to meet the national guidelines. Over one-third of persons either did not engage in sufficient levels of activity to confer a health benefit (30.2 per cent) or were sedentary (6.2 per cent). The proportion of males compared with females who participated in sufficient physical activity each week was similar overall and across all age groups, with 61.2 per cent of males and 57.1 per cent of females meeting the national guidelines. Persons aged 18 to 44 were more likely to have met the guidelines for physical activity, while those aged 55 years and over were less likely, compared with all ages. Males (12.9 per cent) and females (13.6 per cent) aged 65 years and over were significantly more likely to be sedentary, compared with all males (6.2 per cent) and all females (6.2 per cent).

Table 2.27 Physical activity levels, by age group and sex, 2010

Age group (years)	Sedentary			Insufficient time & sessions			Sufficient time & sessions		
		95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**	**	**	**20.7**	13.7	30.0	**75.2**	65.8	82.8
25-34	**2.8***	1.2	6.4	**21.9**	16.5	28.6	**69.7**	62.5	76.0
35-44	**4.7**	2.9	7.6	**29.2**	24.6	34.2	**63.7**	58.4	68.6
45-54	**6.0**	4.2	8.5	**32.0**	27.9	36.5	**57.6**	53.0	62.1
55-64	**7.9**	5.7	11.0	**32.8**	28.5	37.5	**56.4**	51.6	61.1
65+	**12.9**	10.3	16.0	**33.8**	29.9	37.9	**44.8**	40.7	49.0
All males	**6.2**	**5.2**	**7.3**	**28.3**	**26.2**	**30.5**	**61.2**	**58.8**	**63.4**
FEMALES									
18-24	**	**	**	**37.0**	28.9	45.9	**59.1**	50.3	67.5
25-34	**2.6***	1.3	5.2	**29.5**	24.4	35.2	**64.9**	59.1	70.4
35-44	**4.9**	3.4	7.0	**27.6**	24.2	31.3	**64.5**	60.6	68.2
45-54	**6.0**	4.3	8.1	**27.9**	24.6	31.5	**61.6**	57.8	65.2
55-64	**7.5**	5.7	9.9	**34.4**	30.9	38.2	**52.0**	48.1	55.8
65+	**13.6**	11.5	16.1	**38.0**	34.8	41.4	**39.1**	35.9	42.4
All females	**6.2**	**5.5**	**7.1**	**32.1**	**30.2**	**34.1**	**57.1**	**55.1**	**59.1**
PERSONS									
18-24	**2.5***	1.1	5.4	**28.6**	23.0	35.0	**67.4**	60.9	73.3
25-34	**2.7***	1.6	4.7	**25.7**	21.8	30.0	**67.3**	62.7	71.6
35-44	**4.8**	3.5	6.4	**28.4**	25.5	31.5	**64.1**	60.8	67.2
45-54	**6.0**	4.7	7.6	**29.9**	27.3	32.8	**59.6**	56.6	62.5
55-64	**7.7**	6.2	9.6	**33.6**	30.8	36.6	**54.2**	51.1	57.2
65+	**13.3**	11.6	15.2	**36.1**	33.6	38.7	**41.7**	39.1	44.3
All persons	**6.2**	**5.6**	**6.9**	**30.2**	**28.8**	**31.7**	**59.1**	**57.5**	**60.6**

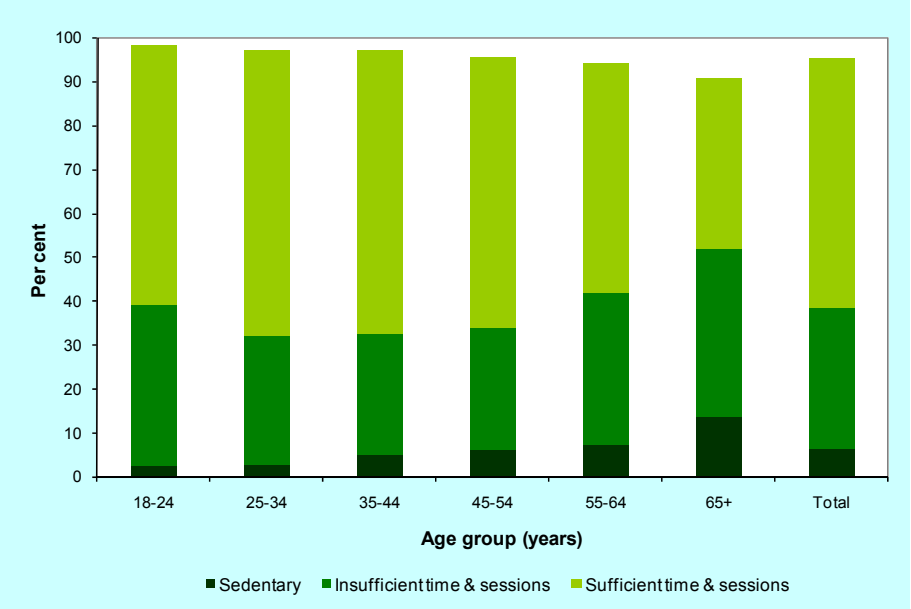
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE greater than 50 per cent and is not reported as it is unreliable for general use.

Figure 2.5a Physical activity levels[a], by age group, males, 2010



[a]Based on national guidelines (DoHA 1999).
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for 'all males' which were age-standardised to the 2006 Victorian population.

Figure 2.5b Physical activity levels[a] in females, by age group, 2010



[a]Based on national guidelines (DoHA 1999).
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for 'all females' which were age-standardised to the 2006 Victorian population.

Table 2.28 shows levels of physical activity, by sex and Department of Health region. There were no regional differences in males, with the exception that a higher proportion of males who resided in Grampians Region (14.0 per cent) were sedentary compared with all rural males (6.9 per cent), all Victorian males (6.2 per cent), and their female counterparts (6.2 per cent). Similarly, there were no regional differences in females, with the exception that a lower proportion of females who resided in Barwon-South Western Region (3.9 per cent) were sedentary compared with all Victorian females (6.2 per cent).

Table 2.28 Physical activity levels, by Department of Health Region and sex, 2010

	Sedentary			Insufficient time & sessions			Sufficient time & sessions		
		95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
Eastern Metropolitan	**5.3**	3.6	7.8	**29.9**	25.0	35.2	**62.1**	56.7	67.2
North & West Metropolitan	**6.5**	4.8	8.9	**29.0**	24.8	33.5	**59.3**	54.5	64.0
Southern Metropolitan	**5.6**	3.7	8.3	**26.8**	22.3	31.8	**64.0**	58.8	68.9
All metropolitan males	**6.0**	4.8	7.4	**28.6**	25.9	31.4	**61.4**	58.4	64.3
Barwon-South Western	**5.2**	3.2	8.1	**27.1**	22.5	32.3	**62.5**	56.9	67.7
Gippsland	**6.0**	4.2	8.5	**32.0**	25.5	39.3	**57.0**	49.9	63.8
Grampians	**14.0**	10.4	18.6	**26.8**	21.5	32.7	**54.7**	48.5	60.7
Hume	**6.5**	4.1	10.3	**30.3**	24.1	37.3	**58.4**	51.4	65.0
Loddon Mallee	**6.1**	3.8	9.6	**24.2**	19.5	29.7	**63.5**	57.6	69.1
All rural males	**6.9**	5.6	8.5	**28.0**	25.4	30.7	**59.9**	57.0	62.9
All Victorian males	**6.2**	**5.2**	**7.3**	**28.3**	**26.2**	**30.5**	**61.2**	**58.8**	**63.4**
FEMALES									
Eastern Metropolitan	**4.2**	3.0	5.7	**34.4**	30.1	39.0	**58.6**	54.0	63.0
North & West Metropolitan	**7.2**	5.6	9.2	**33.0**	29.1	37.1	**54.3**	50.1	58.4
Southern Metropolitan	**6.6**	4.8	9.0	**30.6**	26.6	34.9	**57.7**	53.2	62.1
All metropolitan females	**6.2**	5.3	7.4	**32.5**	30.1	35.1	**56.7**	54.1	59.2
Barwon-South Western	**3.9**	2.7	5.4	**34.0**	29.3	39.1	**57.3**	52.2	62.2
Gippsland	**6.9**	4.9	9.6	**26.0**	21.8	30.7	**62.4**	57.5	67.1
Grampians	**6.2**	4.8	8.1	**29.8**	25.2	34.8	**60.5**	55.5	65.3
Hume	**8.0**	5.3	11.9	**32.2**	27.6	37.2	**54.0**	48.6	59.2
Loddon Mallee	**7.5**	5.5	10.1	**29.3**	25.4	33.5	**58.0**	53.6	62.3
All rural females	**6.2**	5.3	7.3	**30.8**	28.6	33.0	**58.1**	55.8	60.4
All Victorian females	**6.2**	**5.5**	**7.1**	**32.1**	**30.2**	**34.1**	**57.1**	**55.1**	**59.1**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Table 2.29 shows levels of physical activity, by sex and selected risk factors. Males who were sedentary were more likely to be current smokers, rate their health as fair or poor and/or be underweight. Females who were sedentary were more likely to abstain from alcohol consumption and/or rate their health as fair or poor. Males and females who did insufficient physical activity were more likely to rate their health as fair or poor. By contrast, males and females who did sufficient physical activity were more likely to meet the guidelines for vegetables and/or fruit consumption and rate their health as excellent or very good.

Table 2.29 Physical activity levels, by selected risk factors and sex, 2010

	Sedentary			Insufficient time & sessions			Sufficient time & sessions		
		95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL
MALES	**6.2**	**5.2**	**7.3**	**28.3**	**26.2**	**30.5**	**61.2**	**58.8**	**63.4**
Psychological distress [a]									
Low (< 16)	**5.7**	4.6	7.1	**28.4**	25.9	31.1	**62.4**	59.6	65.2
Moderate (16 to 21)	**5.3**	3.7	7.5	**27.6**	23.4	32.3	**63.3**	58.6	67.8
High (22 to 29)	**10.2***	5.9	17.1	**34.9**	26.6	44.1	**48.8**	40.3	57.5
Very high (>= 30)	**11.7***	6.0	21.9	**17.5**	10.9	27.0	**49.7**	38.3	61.1
Smoking status									
Current smoker	**11.6**	8.6	15.5	**28.2**	23.6	33.3	**51.1**	46.0	56.2
Ex-smoker	**6.1**	4.7	7.9	**27.2**	23.0	31.9	**59.2**	54.4	63.8
Non-smoker	**4.4**	3.2	6.0	**28.6**	25.7	31.8	**63.0**	59.7	66.3
Met fruit / vegetable guidelines [b]									
Both guidelines	**	**	**	**21.2**	15.3	28.6	**61.6**	54.9	68.0
Vegetable guidelines	**	**	**	**20.9**	14.3	29.5	**73.9**	65.5	80.9
Fruit guidelines	**4.6**	3.4	6.1	**25.5**	22.5	28.8	**66.5**	63.1	69.8
Neither	**7.4**	6.0	9.1	**31.4**	28.5	34.5	**56.8**	53.5	60.0
Diabetes (excluding GDM)									
No	**6.0**	5.0	7.1	**28.1**	26.0	30.3	**61.6**	59.2	63.9
Yes	**4.6**	3.2	6.6	**17.7**	13.7	22.6	**51.6**	46.7	56.4
Alcohol use [c]									
Abstainer	**6.8**	4.7	9.6	**32.2**	26.7	38.2	**54.1**	47.3	60.7
Low risk	**5.8**	4.7	7.0	**27.8**	25.5	30.2	**62.5**	60.0	65.0
Risky or high risk	**9.7***	5.7	16.0	**24.7**	18.5	32.2	**60.8**	52.2	68.7
Self-reported health									
Excellent or very good	**4.4**	3.2	6.0	**24.0**	21.1	27.1	**68.4**	65.2	71.6
Good	**6.0**	4.4	8.0	**30.4**	26.9	34.1	**58.9**	54.9	62.8
Fair or poor	**10.3**	7.9	13.3	**37.0**	30.9	43.5	**47.5**	41.2	53.8
Body weight status [d]									
Underweight	**14.9**	14.0	15.9	**8.3**	5.2	12.9	**25.0**	21.5	28.8
Normal	**4.7**	3.3	6.6	**26.4**	23.0	30.1	**65.3**	61.4	69.0
Overweight	**5.6**	4.4	7.1	**28.0**	24.8	31.3	**61.9**	58.3	65.5
Obese	**7.0**	5.1	9.7	**30.7**	25.5	36.4	**56.9**	51.2	62.5
FEMALES	**6.2**	**5.5**	**7.1**	**32.1**	**30.2**	**34.1**	**57.1**	**55.1**	**59.1**
Psychological distress [a]									
Low (< 16)	**4.7**	3.8	5.9	**31.4**	28.9	34.1	**60.6**	58.0	63.2
Moderate (16 to 21)	**8.6**	6.9	10.7	**32.7**	28.8	36.9	**53.6**	49.4	57.7
High (22 to 29)	**7.6**	4.9	11.7	**38.7**	32.2	45.5	**49.3**	42.5	56.1
Very high (>= 30)	**11.1**	6.8	17.8	**22.0**	15.3	30.7	**55.4**	46.4	64.0
Smoking status									
Current smoker	**6.3**	4.5	8.6	**34.1**	29.6	38.8	**54.0**	49.2	58.7
Ex-smoker	**4.7**	3.5	6.2	**29.3**	25.4	33.6	**62.0**	57.7	66.1
Non-smoker	**6.5**	5.5	7.7	**32.4**	29.8	35.1	**56.2**	53.5	58.9
Met fruit / vegetable guidelines [b]									
Both guidelines	**3.5***	1.5	7.9	**13.2**	10.4	16.8	**80.4**	75.6	84.4
Vegetable guidelines only	**3.6***	1.6	7.9	**18.0**	13.8	23.1	**75.3**	69.5	80.3
Fruit guidelines only	**5.1**	4.3	6.1	**28.1**	25.5	30.8	**63.3**	60.6	65.9
Neither	**8.0**	6.6	9.6	**36.6**	33.7	39.6	**50.3**	47.3	53.4
Diabetes (excluding GDM)									
No	**6.0**	5.2	6.8	**32.2**	30.2	34.2	**57.3**	55.3	59.3
Yes	**6.9**	4.5	10.3	**37.0**	32.4	41.8	**43.5**	38.6	48.4
Alcohol use [c]									
Abstainer	**10.3**	7.9	13.2	**37.9**	33.4	42.6	**45.2**	40.5	49.9
Low risk	**5.4**	4.6	6.4	**30.6**	28.4	32.8	**60.3**	58.0	62.5
Risky or high risk	**5.5***	2.6	11.2	**28.6**	21.3	37.3	**56.5**	47.4	65.1
Self-reported health									
Excellent or very good	**4.4**	3.5	5.5	**26.8**	24.2	29.6	**65.0**	62.1	67.7
Good	**6.8**	5.5	8.4	**35.5**	32.3	38.8	**53.2**	49.8	56.5
Fair or poor	**9.9**	7.8	12.4	**39.7**	34.8	44.8	**44.1**	39.1	49.2
Body weight status [d]									
Underweight	**8.7***	4.7	15.5	**28.8**	20.2	39.2	**52.1**	42.1	61.9
Normal	**5.4**	4.4	6.7	**30.6**	27.9	33.5	**60.2**	57.3	63.1
Overweight	**5.4**	3.6	7.9	**33.2**	28.8	37.8	**57.9**	53.3	62.5
Obese	**6.9**	5.1	9.4	**36.0**	31.5	40.9	**51.0**	46.1	56.0

[a] Based on the Kessler 10 scale for psychological distress
[b] Based on National Guidelines (NHMRC, 2003). The four categories are not mutually exclusive
[c] Based on National Guidelines (NHMRC, 2001)
[d] Based on Body Mass Index (BMI)
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE greater than 50 per cent and is not reported as it is unreliable for general use.

Physical activity at work

Respondents who were employed were asked whether their work activities were best described as mostly sitting or standing, mostly walking, or mostly heavy labour or physically demanding work.

Table 2.30 shows the proportion of employed males and females, by type of occupational physical activity level, age and sex. Sitting and standing involves the least amount of physical activity and more than half (50.1 per cent) of males, and more than two out of three females (69.7 per cent) reported mostly sitting or standing at work. While there was no difference between the sexes in those who reported mostly sitting at work, females were significantly more likely (21.7 per cent) to report standing at work compared with males (16.5 per cent). There was no difference in the proportion of persons who reported mostly sitting at work by age, with the exception that there was a significantly lower proportion of males (19.9 per cent) and females (29.8 per cent) aged 18-24 years, compared with all ages (46.7 and 48.0 per cent, respectively). By contrast, there was a higher proportion of males (30.2 per cent) and females (39.3 per cent) aged 18-24 years who reported mostly standing at work, compared with all ages (16.5 and 21.7 per cent, respectively).

Less than two in 10 females (19.2 per cent) and 15.9 per cent of males reported mostly walking at work, with no significant difference between the sexes or by age.

Almost two in 10 males (17.8 per cent) and less than one in 10 females (8.5 per cent) reported mostly heavy labour or physically demanding work and in every age, except those aged 65 years and over, there was a higher proportion of males compared with females. There were no differences in the proportions reporting mostly heavy labour or physically demanding work by age, with the exception that there was a higher proportion of males aged 18-24 years (31.2 per cent) who reported heavy labour or physically demanding work, compared with all ages (17.8 per cent).

Table 2.30 Occupational physical activity, by age and sex, 2010

Age group (years)	Mostly sitting			Mostly standing			Mostly walking			Mostly heavy labour/physically demanding		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	19.9*	11.4	32.4	30.2	19.5	43.5	18.8*	10.4	31.5	31.2	21.0	43.5
25-34	45.3	37.6	53.2	18.3	13.1	25.0	13.0	8.6	19.1	20.5	15.0	27.3
35-44	50.2	44.7	55.7	16.7	13.0	21.3	14.5	11.1	18.7	15.0	11.7	19.1
45-54	52.0	47.2	56.8	16.1	12.8	20.0	14.7	11.6	18.4	14.9	11.9	18.4
55-64	50.5	44.6	56.3	14.2	10.6	18.8	16.6	12.7	21.3	15.2	11.5	19.8
65+	50.9	40.4	61.3	9.7*	5.0	17.9	22.5	14.7	33.0	13.6	9.0	20.2
All males	**46.7**	**43.5**	**49.9**	**16.5**	**14.2**	**19.1**	**15.9**	**13.5**	**18.7**	**17.8**	**15.5**	**20.4**
FEMALES												
18-24	29.8	19.8	42.2	39.3	27.7	52.3	25.0	16.0	36.9	**	**	**
25-34	56.3	49.0	63.3	23.0	17.5	29.7	15.7	11.2	21.6	4.2*	2.2	7.8
35-44	54.9	50.3	59.5	20.0	16.5	23.9	18.7	15.4	22.5	4.7	3.2	6.8
45-54	47.5	43.3	51.8	21.4	18.0	25.1	20.9	17.7	24.5	7.6	5.8	9.8
55-64	45.9	40.6	51.2	21.2	17.3	25.8	21.6	17.6	26.3	7.9	5.5	11.1
65+	41.1	28.6	54.8	16.0*	8.7	27.7	16.7*	9.7	27.3	16.1*	8.3	29.0
All females	**48.0**	**44.1**	**51.9**	**21.7**	**19.3**	**24.2**	**19.2**	**16.5**	**22.2**	**8.5**	**6.0**	**12.1**
PERSONS												
18-24	24.3	17.4	32.8	34.2	26.0	43.5	21.6	15.0	29.9	18.8	12.9	26.6
25-34	50.0	44.6	55.4	20.3	16.4	25.0	14.2	10.9	18.3	13.5	10.1	17.8
35-44	52.3	48.6	56.0	18.2	15.5	21.2	16.4	13.9	19.2	10.4	8.4	12.8
45-54	49.9	46.6	53.1	18.5	16.2	21.2	17.6	15.3	20.2	11.4	9.6	13.5
55-64	48.5	44.4	52.5	17.3	14.5	20.4	18.8	15.9	22.0	12.0	9.6	14.9
65+	47.6	39.3	56.0	11.8	7.5	18.1	20.6	14.6	28.2	14.5	10.1	20.3
All persons	**47.5**	**45.0**	**49.9**	**18.9**	**17.2**	**20.7**	**17.5**	**15.6**	**19.6**	**13.2**	**11.6**	**15.0**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE greater than 50 per cent and is not reported as it is unreliable for general use.

Table 2.31 shows the proportion of employed males and females, by type of occupational physical activity level, Department of Health region and sex. The work activities of over half of employed males (52.4 per cent) who resided in the metropolitan regions involved mostly sitting, compared with approximately one-third of employed males (32.5 per cent) who resided in the rural regions. There were no regional differences in the proportions of employed males who reported mostly sitting, standing or walking at work. By contrast, there were higher proportions of employed males from Gippsland Region (31.2 per cent), Grampians Region (28.9 per cent), Loddon Mallee Region (33.0 per cent) and the rural regions overall (30.7 per cent) who reported mostly heavy labour or physically demanding work, compared with those who resided in the metropolitan regions (13.0 per cent) and Victoria overall (17.8 per cent). By contrast, 9.8 per cent of employed males from Southern Metropolitan Region reported mostly heavy labour or physically demanding work, compared with all Victorian (17.8 per cent) or rural (30.7 per cent) employed males.

There was a lower proportion of employed females from Gippsland Region (32.6 per cent), Hume Region (32.2 per cent) and the rural regions overall (40.0 per cent) who reported mostly sitting at work, compared with employed females who resided in the metropolitan regions (50.4 per cent) and Victoria overall (48.0 per cent). There were no regional differences in employed females who reported mostly standing at work or mostly heavy labour or physically demanding work. However, a higher proportion of employed females from Gippsland Region (28.1 per cent) reported mostly walking at work compared with employed females from the metropolitan regions (17.8 per cent) and Victoria overall (19.2 per cent).

Table 2.31 Occupational physical activity, by Department of Health region and sex, 2010

	Mostly sitting			Mostly standing			Mostly walking			Mostly heavy labour/physically demanding		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**55.5**	48.9	61.9	**12.9**	8.7	18.9	**12.1**	8.4	17.0	**13.2**	8.9	19.0
North & West Metropolitan	**40.5**	35.2	46.0	**18.8**	14.8	23.5	**15.2**	12.0	19.0	**14.1**	10.4	18.7
Southern Metropolitan	**51.8**	45.4	58.2	**18.1**	13.0	24.8	**18.6**	13.1	25.6	**9.8**	6.9	13.7
All metropolitan males	**52.4**	48.3	56.4	**16.8**	13.9	20.1	**15.2**	12.1	18.9	**13.0**	10.5	16.0
Barwon-South Western	**38.8**	32.0	46.1	**13.7**	9.0	20.3	**14.8**	11.2	19.2	**27.7**	21.5	34.8
Gippsland	**26.6**	21.3	32.8	**16.8**	11.8	23.3	**21.1**	15.3	28.3	**31.2**	25.1	37.9
Grampians	**34.0**	27.1	41.7	**15.3**	10.0	22.7	**18.0**	13.2	24.0	**28.9**	23.1	35.5
Hume	**34.3**	27.5	41.8	**20.8**	14.8	28.5	**15.4**	10.8	21.6	**23.4**	18.6	29.1
Loddon Mallee	**27.7**	22.5	33.5	**13.9**	9.4	20.0	**18.4**	13.4	24.7	**33.0**	26.5	40.2
All rural males	**32.5**	29.3	35.8	**15.9**	13.3	19.0	**17.4**	14.6	20.6	**30.7**	27.2	34.5
All Victorian males	**46.7**	**43.5**	**49.9**	**16.5**	**14.2**	**19.1**	**15.9**	**13.5**	**18.7**	**17.8**	**15.5**	**20.4**
FEMALES												
Eastern Metropolitan	**52.0**	45.6	58.4	**19.4**	14.1	26.2	**19.2**	14.4	25.1	**6.0***	3.5	10.3
North & West Metropolitan	**48.9**	42.8	55.1	**25.1**	20.9	29.9	**17.0**	13.1	21.8	**5.9***	3.1	11.0
Southern Metropolitan	**53.8**	47.2	60.2	**22.1**	17.1	28.1	**16.0**	12.1	20.9	**5.1***	2.7	9.2
All metropolitan females	**50.4**	46.4	54.3	**23.1**	19.9	26.6	**17.8**	15.0	21.0	**5.5**	3.7	8.0
Barwon-South Western	**33.7**	28.2	39.7	**20.8**	15.5	27.4	**27.3**	21.4	34.2	**7.8**	5.5	10.9
Gippsland	**32.6**	26.9	38.8	**19.6**	14.7	25.6	**28.1**	22.6	34.4	**15.0**	10.9	20.4
Grampians	**40.5**	33.9	47.5	**24.7**	18.5	32.3	**17.9**	12.5	24.9	**7.4**	4.7	11.5
Hume	**32.2**	26.0	39.0	**28.6**	22.7	35.4	**22.6**	18.6	27.3	**10.8**	6.6	17.1
Loddon Mallee	**41.2**	35.7	46.8	**19.9**	15.6	25.0	**20.4**	16.0	25.5	**8.0**	5.4	11.7
All rural females	**40.0**	36.0	44.1	**22.8**	20.1	25.8	**24.0**	20.8	27.6	**11.5**	8.7	15.1
All Victorian females	**48.0**	**44.1**	**51.9**	**21.7**	**19.3**	**24.2**	**19.2**	**16.5**	**22.2**	**8.5**	**6.0**	**12.1**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Trend over time

There were no significant changes in the proportions of males or females who did, or did not, meet the Australian guidelines for physical activity between 2005 and 2010, (Table 2.30).

Table 2.32 Physical activity levels, by sex, 2005-2010

	2005			2006			2007			2008			2009			2010		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI	
MALES		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL
Sedentary	**6.6**	5.6	7.9	**4.9**	4.0	6.1	**4.8**	3.9	5.8	**5.1**	4.6	5.6	**5.9**	4.9	7.0	**6.2**	5.2	7.3
Insufficient time & sessions	**28.0**	25.8	30.2	**27.6**	25.5	29.9	**28.2**	25.9	30.6	**27.9**	26.7	29.1	**26.2**	24.2	28.2	**28.3**	26.2	30.5
Sufficient time & sessions	**63.4**	61.0	65.7	**64.0**	61.6	66.3	**63.4**	60.9	65.9	**63.3**	62.0	64.6	**63.6**	61.4	65.8	**61.2**	58.8	63.4
FEMALES																		
Sedentary	**5.4**	4.6	6.2	**5.6**	4.8	6.5	**4.9**	4.2	5.8	**5.4**	5.0	5.8	**5.7**	4.9	6.6	**6.2**	5.5	7.1
Insufficient time & sessions	**28.9**	27.1	30.7	**28.1**	26.3	29.9	**29.9**	28.0	31.8	**27.9**	27.0	28.9	**26.4**	24.8	28.1	**32.1**	30.2	34.1
Sufficient time & sessions	**63.4**	61.5	65.3	**62.8**	60.9	64.6	**60.4**	58.4	62.3	**62.4**	61.4	63.4	**63.3**	61.6	65.1	**57.1**	55.1	59.1
PERSONS																		
Sedentary	**5.9**	5.3	6.7	**5.4**	4.7	6.1	**4.8**	4.3	5.5	**5.3**	4.9	5.6	**5.8**	5.2	6.5	**6.2**	5.6	6.9
Insufficient time & sessions	**28.4**	27.0	29.8	**27.8**	26.4	29.3	**29.1**	27.6	30.6	**27.9**	27.2	28.7	**26.4**	25.1	27.7	**30.2**	28.8	31.7
Sufficient time & sessions	**63.5**	62.0	65.0	**63.3**	61.8	64.8	**61.8**	60.2	63.4	**62.8**	62.0	63.6	**63.4**	62.0	64.8	**59.1**	57.5	60.6

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Eye health

People who experience changes to their vision should see a health professional for an eye examination as soon as possible. If people are over the age of 40 years, have diabetes, have a family history of eye disease, or are of Aboriginal and / or Torres Strait Islander origin, they are advised to have regular eye examinations to help detect eye problems and allow for treatment at an early stage (DoHA 2010a). For more information, people should see a health professional, or visit their optometrist or ophthalmologist.

In 2010, survey respondents were asked a series of questions about eye health including whether respondents had ever seen an eye specialist, the timing of their last visit, whether they had been diagnosed with a specific eye condition and whether they usually wore a hat or sunglasses when out in the sun.

Sun protective behaviour

Damage to the eye can occur from exposure to high levels of ultra violet (UV) radiation. The risk of eye injury therefore, can be reduced by protecting the eyes or face when out in the sun. Table 2.33 shows the proportion of persons who reported wearing a hat and/or sunglasses when out in the sun, by age and sex. About four in 10 (39.5 per cent) of all persons reported usually wearing both a hat and sunglasses. More than half (50.3 per cent) reported usually wearing a hat, and almost three-quarters (74.3 per cent) usually wore sunglasses when out in the sun. Almost one in seven persons (14.7 per cent) wore neither a hat and/or sunglasses when out in the sun.

There were differences between males and females with respect to the sun protective behaviours that can help prevent eye damage. A greater proportion of males (43.7 per cent) than females (35.4 per cent) reported wearing both a hat and sunglasses. Overall, females compared with males were more likely to report wearing sunglasses (80.1 and 68.1 per cent, respectively) and less likely to report wearing a hat (40.7 and 60.4 per cent, respectively).

There were also differences in the proportion of persons who reported wearing a hat and sunglasses, by age group, with younger persons less likely to report wearing a hat and sunglasses than older persons. About one-fifth (18.3 per cent) of persons aged 18–24 years reported wearing a hat and sunglasses when out in the sun, compared with two out of five (41.7 per cent) persons aged 65 years and over.

Table 2.33 Sun protective behaviours[a] by age group and sex, 2010

Age group (years)	Wears Hat & sunglasses	95% CI		Usually wears a hat	95% CI		Usually wears sunglasses	95% CI		Neither	95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**22.5**	15.3	31.9	**33.9**	25.1	44.0	**56.6**	46.4	66.2	**30.6**	22.2	40.5
25-34	**39.7**	32.8	47.0	**55.9**	48.5	63.1	**71.0**	63.8	77.3	**12.8**	8.5	18.7
35-44	**49.3**	44.0	54.6	**60.0**	54.6	65.1	**80.4**	75.8	84.3	**8.9**	6.2	12.7
45-54	**51.9**	47.3	56.4	**67.8**	63.3	72.0	**70.5**	66.1	74.5	**13.5**	10.6	17.0
55-64	**49.4**	44.6	54.2	**67.6**	62.9	72.1	**64.1**	59.3	68.6	**17.3**	13.8	21.3
65+	**46.4**	42.2	50.6	**74.6**	70.7	78.2	**59.1**	55.0	63.1	**12.5**	10.0	15.7
All males	**43.7**	**41.3**	**46.1**	**60.4**	**57.9**	**62.8**	**68.1**	**65.8**	**70.4**	**14.9**	**13.1**	**16.8**
FEMALES												
18-24	**13.8**	9.2	20.3	**17.8**	12.6	24.7	**73.8**	65.3	80.7	**22.2**	15.7	30.6
25-34	**28.9**	23.9	34.5	**32.7**	27.4	38.4	**79.8**	74.4	84.2	**16.5**	12.4	21.5
35-44	**44.6**	40.7	48.6	**49.5**	45.5	53.5	**85.6**	82.6	88.2	**9.0**	7.0	11.6
45-54	**42.9**	39.2	46.8	**46.9**	43.2	50.8	**84.8**	81.9	87.3	**11.0**	8.8	13.6
55-64	**39.9**	36.2	43.7	**46.6**	42.7	50.4	**77.9**	74.4	81.0	**15.3**	12.6	18.5
65+	**37.9**	34.7	41.2	**46.3**	43.0	49.7	**75.7**	72.7	78.5	**15.5**	13.2	18.1
All females	**35.4**	**33.7**	**37.2**	**40.7**	**38.9**	**42.5**	**80.1**	**78.3**	**81.7**	**14.5**	**13.0**	**16.1**
PERSONS												
18-24	**18.3**	13.8	23.9	**26.1**	20.7	32.4	**64.9**	58.2	71.1	**26.5**	21.0	33.0
25-34	**34.3**	30.0	38.9	**44.3**	39.7	49.1	**75.4**	70.9	79.3	**14.6**	11.5	18.3
35-44	**46.9**	43.6	50.3	**54.7**	51.4	58.0	**83.0**	80.4	85.4	**9.0**	7.2	11.1
45-54	**47.3**	44.4	50.3	**57.3**	54.3	60.2	**77.7**	75.1	80.1	**12.2**	10.4	14.3
55-64	**44.6**	41.5	47.6	**56.9**	53.9	60.0	**71.1**	68.1	73.8	**16.3**	14.1	18.8
65+	**41.7**	39.1	44.3	**59.1**	56.4	61.6	**68.2**	65.7	70.7	**14.2**	12.4	16.1
All persons	**39.5**	**38.0**	**41.0**	**50.3**	**48.7**	**51.8**	**74.3**	**72.8**	**75.7**	**14.7**	**13.5**	**15.9**

[a] Categories are not mutually exclusive; e.g. 'usually wears a hat' includes those who also wear sunglasses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has Relative Standard Error (RSE) of 25 to <50 per cent and should be viewed with caution

Table 2.34 shows the proportion of persons who reported wearing a hat and/or sunglasses when out in the sun, by Department of Health region and sex. There were no regional differences in the proportion of males or females who wore both a hat and sunglasses when out in the sun, with the exception that there was a higher proportion of females from Hume Region (43.6 per cent) compared with all metropolitan females (34.3 per cent) or all Victorian females (35.4 per cent).

Males who resided in the rural regions overall (69.0 per cent) and Loddon Mallee Region (75.0 per cent) were more likely to wear a hat when out in the sun, compared with males` who resided in the metropolitan regions (57.4 per cent) or Victoria overall (60.4 per cent). By contrast, males from Eastern Metropolitan Region (49.5 per cent) were less likely to wear a hat compared with all Victorian males. Females from the rural regions overall (45.7 per cent), Gippsland Region (48.8 per cent), and Hume Region (50.2 per cent) were more likely to wear a hat when out in the sun, compared with females who resided in the metropolitan regions (39.0 per cent) or Victoria overall (40.7 per cent).

There were no regional differences in the proportion of males and females who usually wore sunglasses when out in the sun. Males from Eastern Metropolitan Region (21.5 per cent) were more likely not to wear a hat or sunglasses compared with all Victorian males (14.9 per cent).

Table 2.34 Sun protective behaviours[a], by Department of Health region and sex, 2010

	Wears Hat & sunglasses			Usually wears a hat			Usually wears sunglasses			Neither		
MALES		95% CI			95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**37.2**	32.4	42.2	**49.5**	44.4	54.6	**66.2**	60.5	71.5	**21.5**	16.9	26.9
North & West Metropolitan	**43.0**	38.1	48.0	**57.5**	52.5	62.4	**69.0**	64.4	73.4	**16.3**	13.0	20.1
Southern Metropolitan	**43.6**	38.2	49.2	**62.9**	57.4	68.1	**67.4**	62.0	72.4	**12.4**	9.1	16.7
All metropolitan males	**41.5**	38.5	44.5	**57.4**	54.3	60.4	**67.5**	64.5	70.4	**16.3**	14.0	18.8
Barwon-South Western	**49.5**	43.3	55.6	**65.5**	59.1	71.4	**74.5**	69.0	79.2	**9.5**	6.2	14.2
Gippsland	**47.5**	40.5	54.5	**66.2**	59.1	72.6	**65.2**	58.4	71.4	**15.6**	10.7	22.0
Grampians	**46.5**	40.2	52.9	**67.3**	60.9	73.1	**68.7**	62.4	74.3	**10.2**	6.9	14.9
Hume	**53.1**	46.5	59.6	**69.0**	62.6	74.8	**74.1**	68.1	79.3	**9.9**	6.7	14.3
Loddon Mallee	**54.4**	48.4	60.3	**75.0**	68.9	80.2	**70.0**	64.3	75.0	**9.5**	6.8	13.0
All rural males	**50.8**	47.7	53.9	**69.0**	66.0	71.9	**70.9**	68.1	73.6	**10.7**	8.8	13.0
All Victorian males	**43.7**	**41.3**	**46.1**	**60.4**	**57.9**	**62.8**	**68.1**	**65.8**	**70.4**	**14.9**	**13.1**	**16.8**
FEMALES												
Eastern Metropolitan	**35.7**	31.7	39.9	**41.4**	37.2	45.7	**78.2**	73.7	82.0	**16.0**	12.6	20.1
North & West Metropolitan	**31.5**	28.1	35.1	**35.4**	31.9	39.0	**78.8**	75.1	82.0	**17.1**	14.1	20.6
Southern Metropolitan	**36.4**	32.5	40.5	**41.7**	37.6	45.9	**82.2**	78.4	85.4	**12.2**	9.5	15.7
All metropolitan females	**34.3**	32.1	36.5	**39.0**	36.7	41.3	**79.8**	77.5	81.8	**15.3**	13.5	17.4
Barwon-South Western	**41.6**	37.1	46.2	**44.5**	40.0	49.2	**85.8**	81.9	89.0	**11.1**	8.2	14.9
Gippsland	**39.2**	34.2	44.5	**48.8**	43.5	54.2	**77.6**	72.7	81.8	**12.6**	9.4	16.5
Grampians	**33.9**	29.4	38.6	**39.1**	34.4	44.0	**79.3**	75.0	82.9	**15.5**	12.3	19.3
Hume	**43.6**	38.3	49.0	**50.2**	44.8	55.6	**83.7**	80.1	86.8	**9.4**	7.0	12.5
Loddon Mallee	**35.9**	31.7	40.3	**46.0**	41.5	50.5	**77.4**	73.4	80.9	**12.3**	9.6	15.7
All rural females	**39.0**	36.8	41.2	**45.7**	43.5	48.0	**81.4**	79.5	83.1	**11.7**	10.3	13.3
All Victorian females	**35.4**	**33.7**	**37.2**	**40.7**	**38.9**	**42.5**	**80.1**	**78.3**	**81.7**	**14.5**	**13.0**	**16.1**

[a] Categories are not mutually exclusive; e.g. 'usually wears a hat' includes those who also wear sunglasses.
Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Change in vision

In addition to protecting the face and eyes from exposure to UV radiation by wearing a hat and sunglasses, it is recommended that individuals who are at risk of specific eye conditions should have regular eye examinations to detect problems and allow for treatment at an early stage (DoHA 2010a). Individuals who have noticed a recent change in their vision are also advised to see a health professional or visit their eye specialist.

Table 2.35 shows that almost four in 10 (37.9 per cent) persons had noticed a change in their vision in the 12 months preceding the survey. Females (42.0 per cent) were more likely than males (33.6 per cent) to report having noticed a change, and persons aged 45–54 years (63.4 per cent) were more likely to report having noticed a change in their vision than persons in any other age group.

Table 2.35 Proportion who noticed a change in their vision in the last 12 months, by age group and sex, 2010

Age group (years)		95% CI	
MALES	**%**	LL	UL
18-24	**19.1**	12.5	28.1
25-34	**13.4**	9.2	19.0
35-44	**22.4**	18.3	27.1
45-54	**60.0**	55.4	64.5
55-64	**45.8**	41.0	50.6
65+	**42.0**	38.0	46.2
All males	**33.6**	**31.6**	**35.6**
FEMALES			
18-24	**24.4**	17.7	32.6
25-34	**24.5**	19.8	30.0
35-44	**35.5**	31.8	39.4
45-54	**66.7**	63.0	70.2
55-64	**52.3**	48.4	56.1
65+	**47.7**	44.3	51.0
All females	**42.0**	**40.2**	**43.9**
PERSONS			
18-24	**21.7**	16.7	27.6
25-34	**18.9**	15.6	22.8
35-44	**29.0**	26.1	32.0
45-54	**63.4**	60.4	66.2
55-64	**49.1**	46.0	52.2
65+	**45.1**	42.5	47.8
All persons	**37.9**	**36.5**	**39.3**

Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Table 2.36 shows that there were no regional differences in the proportion of males or females who had noticed a change in vision in the 12 months preceding the survey.

Table 2.36 Proportion who noticed a change in their vision in the last 12 months, by Department of Health region and sex, 2010

MALES		95% CI	
Eastern Metropolitan	**32.0**	27.4	36.9
North & West Metropolitan	**33.0**	29.0	37.3
Southern Metropolitan	**32.2**	28.1	36.6
All metropolitan males	**32.5**	30.0	35.1
Barwon-South Western	**39.9**	34.3	45.7
Gippsland	**36.3**	31.2	41.8
Grampians	**35.5**	30.0	41.4
Hume	**35.4**	29.9	41.3
Loddon Mallee	**35.2**	30.2	40.6
All rural males	**36.7**	34.1	39.3
All Victorian males	**33.6**	**31.6**	**35.6**
FEMALES			
Eastern Metropolitan	**45.5**	41.2	49.8
North & West Metropolitan	**41.2**	37.5	45.0
Southern Metropolitan	**42.3**	38.1	46.6
All metropolitan females	**42.5**	40.1	44.8
Barwon-South Western	**39.7**	35.4	44.3
Gippsland	**42.1**	37.4	46.9
Grampians	**42.3**	37.4	47.3
Hume	**37.7**	33.2	42.5
Loddon Mallee	**41.7**	37.8	45.8
All rural females	**40.8**	38.8	42.9
All Victorian females	**42.0**	**40.2**	**43.9**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.

Use of health care services

Table 2.37 shows that more than three-quarters (78.1 per cent) of all persons surveyed reported having ever consulted an eye care specialist or attended an eye clinic. A higher proportion of females (83.0 per cent) reported having ever consulted an eye care specialist or attended an eye clinic, compared with males (73.1 per cent). There were differences between age groups, with older persons more likely to report having ever consulted an eye care specialist or attended an eye clinic, than younger persons. More than six in 10 (63.9 per cent) persons aged 18–24 years reported having seen an eye care specialist or attending an eye clinic, compared with 94.6 per cent of persons aged 65 years and over.

Table 2.37 Proportion who had ever consulted an eye care professional, by age and sex, 2010

Age group (years)		95% CI	
MALES	**%**	LL	UL
18-24	**56.4**	46.2	66.0
25-34	**57.7**	50.3	64.8
35-44	**60.4**	55.1	65.5
45-54	**83.4**	79.7	86.5
55-64	**88.9**	85.4	91.6
65+	**91.3**	88.5	93.5
All males	**73.1**	**70.8**	**75.4**
FEMALES			
18-24	**71.9**	63.5	79.1
25-34	**73.3**	67.7	78.2
35-44	**74.7**	71.1	78.1
45-54	**88.0**	85.3	90.3
55-64	**93.9**	91.6	95.5
65+	**97.3**	96.0	98.2
All females	**83.0**	**81.2**	**84.6**
PERSONS			
18-24	**63.9**	57.2	70.2
25-34	**65.5**	60.8	69.9
35-44	**67.7**	64.4	70.7
45-54	**85.7**	83.5	87.7
55-64	**91.4**	89.4	93.1
65+	**94.6**	93.2	95.7
All persons	**78.1**	**76.6**	**79.5**

Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Table 2.38 shows that the proportion of persons who had ever consulted an eye care specialist or attended an eye clinic was similar between the metropolitan and rural regions of the state.

Table 2.38 Proportion who had ever consulted an eye care professional, by Department of Health region and sex, 2010

		95% CI	
MALES	**%**	LL	UL
Eastern Metropolitan	**77.0**	71.3	81.9
North & West Metropolitan	**70.4**	65.8	74.6
Southern Metropolitan	**74.4**	69.0	79.1
All metropolitan males	**72.9**	69.9	75.7
Barwon-South Western	**69.6**	63.6	74.9
Gippsland	**77.2**	70.4	82.8
Grampians	**70.8**	64.4	76.4
Hume	**75.2**	68.3	81.1
Loddon Mallee	**73.2**	67.4	78.3
All rural males	**73.0**	70.0	75.8
All Victorian males	**73.1**	**70.8**	**75.4**
FEMALES			
Eastern Metropolitan	**82.1**	77.8	85.6
North & West Metropolitan	**83.7**	80.1	86.7
Southern Metropolitan	**83.5**	79.8	86.7
All metropolitan females	**83.2**	81.0	85.2
Barwon-South Western	**80.0**	74.9	84.2
Gippsland	**80.6**	75.7	84.7
Grampians	**86.0**	81.4	89.6
Hume	**82.5**	77.1	86.9
Loddon Mallee	**81.6**	77.4	85.1
All rural females	**82.0**	79.9	84.0
All Victorian females	**83.0**	**81.2**	**84.6**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.

Table 2.39 shows the timing of the most recent visit to an eye care specialist or attendance at an eye clinic, by age group and sex. More than one in four (28.2 per cent) persons had visited an eye care specialist or attended an eye clinic in the six months preceding the survey and 25.2 per cent had visited a specialist or clinic between six months to one year before the survey. A further 20.0 per cent reported having visited an eye care specialist or attended an eye clinic more than one year, but less than two years before the survey, whilst 14.9 per cent of persons reported having visited a specialist or clinic between two and five years before the survey and 11.4 per cent reported having visited an eye care specialist or attended an eye clinic more than five years before the survey. There were no differences between the sexes.

Table 2.39 Last visit to an eye care professional, by age group and sex, 2010

Age group (years)	Less than 6 months ago			Between 6 months and 1 year			More than 1 year but less than 2 years			More than 2 years but less than 5 years			5 years or more		
		95% CI			95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**35.1**	23.5	48.8	**18.7***	10.5	31.2	**7.5***	3.0	17.4	**15.1***	7.9	27.0	**23.6**	14.4	36.1
25-34	**15.0**	9.3	23.4	**17.9**	11.7	26.5	**25.7**	18.1	35.3	**18.4**	12.1	26.9	**23.0**	15.8	32.2
35-44	**20.8**	15.8	26.9	**23.3**	17.9	29.7	**19.1**	14.1	25.3	**19.0**	14.3	24.8	**17.8**	13.3	23.5
45-54	**26.1**	21.9	30.8	**31.5**	26.9	36.3	**20.0**	16.4	24.3	**15.7**	12.4	19.7	**6.4**	4.3	9.3
55-64	**30.0**	25.5	34.9	**25.0**	20.9	29.7	**24.1**	20.0	28.8	**13.8**	10.7	17.6	**6.9**	4.7	10.0
65+	**38.9**	34.7	43.3	**26.7**	23.0	30.7	**20.7**	17.4	24.5	**9.2**	7.1	11.9	**4.5**	3.1	6.5
All males	**27.0**	**24.3**	**29.7**	**23.9**	**21.5**	**26.6**	**20.0**	**17.7**	**22.5**	**15.4**	**13.2**	**17.9**	**13.6**	**11.4**	**16.1**
FEMALES															
18-24	**30.3**	21.9	40.1	**21.4**	14.2	31.0	**17.2**	10.5	26.8	**15.8***	9.4	25.2	**15.4***	9.2	24.7
25-34	**20.1**	15.1	26.3	**23.8**	18.3	30.3	**21.1**	16.0	27.4	**17.4**	12.9	23.2	**17.5**	12.8	23.5
35-44	**22.6**	18.9	26.7	**25.0**	21.2	29.1	**20.8**	17.3	24.9	**17.7**	14.5	21.6	**13.9**	11.0	17.4
45-54	**30.7**	27.1	34.6	**30.3**	26.7	34.2	**23.7**	20.4	27.3	**11.3**	9.1	14.0	**3.8**	2.5	5.6
55-64	**31.8**	28.2	35.7	**29.1**	25.6	32.8	**19.9**	17.0	23.3	**14.9**	12.3	18.0	**3.4**	2.2	5.1
65+	**41.3**	38.0	44.7	**27.4**	24.5	30.6	**17.8**	15.4	20.6	**9.9**	8.0	12.1	**3.4**	2.3	4.9
All females	**29.3**	**27.3**	**31.4**	**26.3**	**24.3**	**28.4**	**20.0**	**18.3**	**22.0**	**14.5**	**12.9**	**16.3**	**9.6**	**8.2**	**11.3**
PERSONS															
18-24	**32.5**	25.2	40.6	**20.2**	14.4	27.5	**12.8**	8.3	19.3	**15.5**	10.3	22.5	**19.1**	13.4	26.5
25-34	**17.9**	13.9	22.7	**21.2**	16.8	26.2	**23.2**	18.6	28.5	**17.8**	13.9	22.6	**19.9**	15.6	25.1
35-44	**21.8**	18.7	25.2	**24.2**	21.0	27.8	**20.1**	17.0	23.5	**18.3**	15.4	21.5	**15.6**	12.9	18.7
45-54	**28.5**	25.7	31.5	**30.9**	28.0	33.9	**21.9**	19.4	24.7	**13.4**	11.4	15.8	**5.0**	3.8	6.7
55-64	**31.0**	28.1	34.0	**27.1**	24.4	30.1	**22.0**	19.4	24.7	**14.4**	12.3	16.7	**5.0**	3.8	6.7
65+	**40.2**	37.6	42.9	**27.1**	24.8	29.6	**19.1**	17.1	21.3	**9.6**	8.1	11.3	**3.9**	3.0	5.0
All persons	**28.2**	**26.6**	**29.9**	**25.2**	**23.6**	**26.9**	**20.0**	**18.6**	**21.6**	**14.9**	**13.6**	**16.4**	**11.4**	**10.1**	**12.9**

Figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Table 2.40 summarises the most recent visit to an eye care specialist or eye clinic, by sex and Department of Health region. There were no regional differences in the proportions of males or females who visited an eye care specialist or attended at an eye clinic in the previous six months, more than one year but less than two years, or five years or more. Males from the Southern Metropolitan Region were less likely to have been between two and five years ago, while females from Grampians and Hume Regions were less likely to have visited an eye care specialist or eye clinic between 6 months and one year ago.

Table 2.40 Last visit to an eye care professional, by Department of Health region and sex, 2010

	Less than 6 months ago			Between 6 months and 1 year			More than 1 year but less than 2 years			More than 2 years but less than 5 years			5 years or more		
		95% CI			95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**23.9**	19.1	29.5	**22.1**	17.3	27.8	**18.4**	13.4	24.8	**20.8**	15.2	27.8	**14.8**	10.0	21.4
North & West Metropolitan	**25.6**	20.3	31.8	**27.1**	22.0	32.9	**18.3**	14.4	23.0	**16.1**	11.7	21.6	**13.0**	9.0	18.3
Southern Metropolitan	**33.5**	27.8	39.8	**22.3**	17.4	28.2	**25.1**	19.7	31.4	**7.5**	4.8	11.7	**11.3**	7.6	16.5
All metropolitan males	**28.0**	24.7	31.6	**24.1**	21.0	27.5	**20.6**	17.8	23.9	**14.3**	11.7	17.4	**12.9**	10.3	16.0
Barwon-South Western	**24.8**	18.7	32.2	**23.4**	18.8	28.8	**16.3**	11.7	22.3	**18.4**	13.0	25.5	**13.5**	8.2	21.4
Gippsland	**29.1**	22.4	37.0	**22.5**	17.7	28.2	**21.8**	15.3	30.0	**14.0**	10.0	19.3	**12.5**	8.1	18.8
Grampians	**21.0**	15.5	27.8	**25.0**	18.4	33.0	**13.0**	8.8	18.9	**20.7**	14.2	29.0	**16.8**	10.9	25.1
Hume	**26.6**	20.4	33.8	**18.6**	13.3	25.4	**19.1**	13.0	27.0	**15.0**	11.0	20.2	**20.7**	13.9	29.8
Loddon Mallee	**21.4**	16.2	27.8	**23.7**	18.5	29.9	**18.5**	13.2	25.2	**20.0**	14.3	27.2	**12.7**	8.0	19.6
All rural males	**24.8**	21.6	28.3	**24.5**	21.4	27.8	**18.0**	15.3	21.0	**17.8**	15.1	20.8	**14.9**	12.1	18.3
All Victorian males	**27.0**	**24.3**	**29.7**	**23.9**	**21.5**	**26.6**	**20.0**	**17.7**	**22.5**	**15.4**	**13.2**	**17.9**	**13.6**	**11.4**	**16.1**
FEMALES															
Eastern Metropolitan	**34.0**	28.9	39.4	**28.4**	23.6	33.7	**17.6**	14.1	21.8	**11.0**	8.3	14.4	**8.6**	5.7	12.7
North & West Metropolitan	**26.2**	22.5	30.4	**26.0**	22.2	30.1	**20.6**	17.0	24.8	**16.0**	12.7	20.0	**11.0**	8.1	14.7
Southern Metropolitan	**30.5**	26.1	35.3	**26.8**	22.6	31.5	**19.4**	16.0	23.4	**14.3**	11.0	18.4	**8.7**	6.0	12.3
All metropolitan females	**29.4**	26.8	32.0	**26.7**	24.3	29.4	**19.6**	17.4	22.0	**14.2**	12.2	16.5	**9.8**	8.0	11.9
Barwon-South Western	**31.1**	25.2	37.7	**29.5**	23.9	35.7	**18.2**	13.5	24.0	**14.0**	10.6	18.2	**7.3**	5.1	10.5
Gippsland	**30.0**	25.0	35.6	**23.1**	18.4	28.5	**21.3**	16.7	26.9	**12.5**	9.0	17.2	**12.9**	8.8	18.7
Grampians	**32.7**	27.4	38.3	**20.1**	16.8	23.7	**21.3**	16.7	26.9	**18.0**	13.5	23.5	**8.0**	5.0	12.5
Hume	**31.7**	25.7	38.3	**19.5**	16.6	22.8	**23.6**	18.1	30.0	**17.3**	13.6	21.7	**7.8***	4.3	13.7
Loddon Mallee	**25.3**	21.2	29.9	**28.6**	24.0	33.8	**22.4**	18.2	27.3	**13.8**	10.5	18.0	**9.8**	6.5	14.5
All rural females	**29.6**	27.2	32.3	**24.7**	22.5	27.0	**21.3**	19.1	23.7	**15.2**	13.3	17.3	**9.1**	7.5	11.1
All Victorian females	**29.3**	27.3	31.4	**26.3**	24.3	28.4	**20.0**	18.3	22.0	**14.5**	12.9	16.3	**9.6**	8.2	11.3

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data have been age standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Selected eye conditions

Persons aged 18 years and over who reported having ever seen an eye care specialist or visited an eye clinic, were asked if they had ever had a cataract, glaucoma, macular degeneration or if they were diabetic and had been diagnosed with diabetic retinopathy. Table 2.41 shows that fewer than one in 10 (8.2 per cent) persons had ever had a cataract. Females (9.2 per cent) were more likely than males (7.1 per cent) to report having ever had a cataract.

Two per cent of persons reported glaucoma, 2.1 per cent reported macular degeneration, and 0.5 per cent reported diabetic retinopathy. There were no differences in the prevalence of these conditions between males and females.

Table 2.41 Life-time prevalence of selected eye conditions, by sex, 2010

	Cataract			Glaucoma			Retinopathy			Macular degeneration		
		95% CI			95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
All males	7.1	6.2	8.0	1.9	1.5	2.4	0.7	0.4	1.1	2.3	1.8	3.0
All females	9.2	8.5	9.8	2.0	1.7	2.4	0.3*	0.2	0.5	1.8	1.5	2.3
All persons	8.2	7.7	8.8	2.0	1.7	2.3	0.5	0.3	0.7	2.1	1.8	2.5

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Health checks

The survey collected information about health checks from males and females aged 18 years and over. In particular, the survey asked about blood pressure checks, cholesterol checks and diabetes or high blood sugar (glucose) level checks in the past two years.

Blood pressure checks

High blood pressure, or hypertension, is an important risk factor for cardiovascular disease and the risk of disease increases with increasing blood pressure levels (AIHW 2004). There are several modifiable causes of high blood pressure including poor nutrition, especially a diet high in salt, low levels of physical activity, obesity and high levels of alcohol consumption. Adults are advised to have their blood pressure checked regularly.

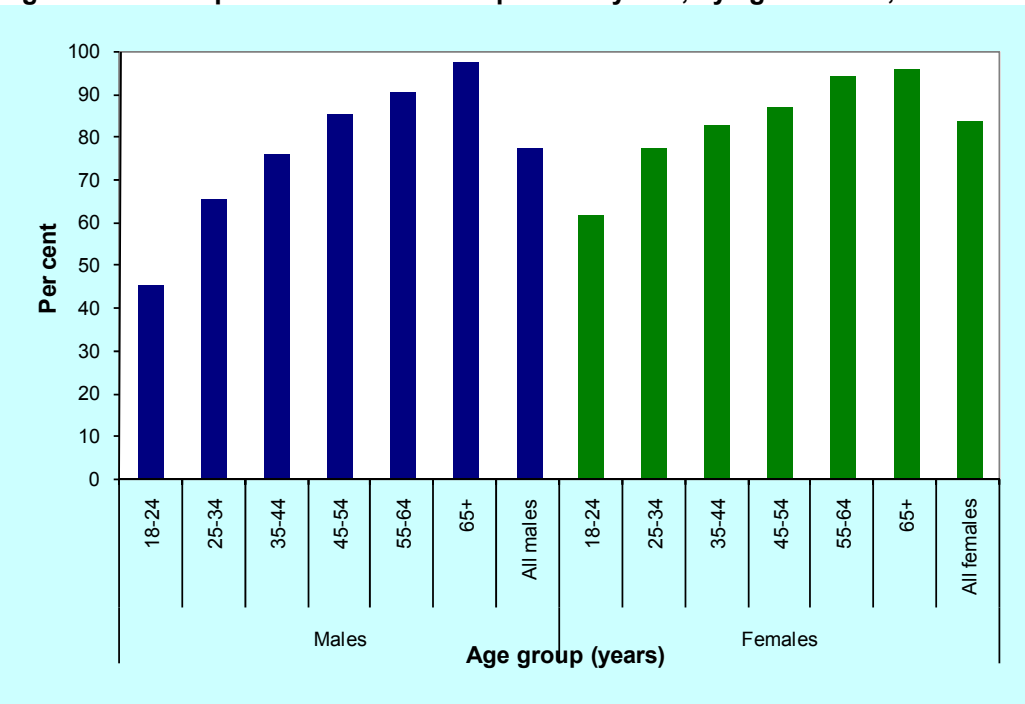
Table 2.42 and Figure 2.6 show the proportion of persons who reported having had a blood pressure check in the past two years, by age group and sex. Females (83.5 per cent) were more likely than males (77.3 per cent) to report having had their blood pressure checked in the past two years. This was largely due to a higher proportion of females aged under 45 years of age, compared with males, who reported having had a blood pressure check. The proportion of persons who had had their blood pressure checked increased with age group, from 53.1 per cent of persons aged 18–24 years to 96.6 per cent of persons aged 65 years and over.

Table 2.42 Blood pressure check in the past two years, by age and sex, 2010

Age group (years)		95% CI	
MALES	**%**	LL	UL
18-24	**44.9**	35.3	55.0
25-34	**65.2**	57.9	71.9
35-44	**75.9**	71.1	80.2
45-54	**85.0**	81.4	88.1
55-64	**90.3**	86.9	92.8
65+	**97.4**	95.7	98.4
All males	**77.3**	**75.1**	**79.5**
FEMALES			
18-24	**61.7**	52.8	69.9
25-34	**77.1**	71.7	81.7
35-44	**82.6**	79.4	85.4
45-54	**87.0**	84.1	89.4
55-64	**93.9**	91.8	95.5
65+	**96.0**	94.4	97.1
All females	**83.5**	**81.7**	**85.1**
PERSONS			
18-24	**53.1**	46.4	59.7
25-34	**71.1**	66.6	75.3
35-44	**79.3**	76.5	81.9
45-54	**86.0**	83.8	88.0
55-64	**92.1**	90.2	93.7
65+	**96.6**	95.5	97.4
All persons	**80.4**	**79.0**	**81.8**

Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Figure 2.6 Blood pressure check in the past two years, by age and sex, 2010



Data are crude estimates, except for 'all males' and 'all females' which were age-standardised to the 2006 Victorian population.

Table 2.43 shows the proportion of persons who reported having had a blood pressure check in the preceding two years, by Department of Health region and sex. There were no regional differences in the proportion of males or females who had had a blood pressure check in the past two years.

Table 2.43 Blood pressure check in the past two years, by Department of Health region and sex, 2010

		95% CI	
MALES	**%**	LL	UL
Eastern Metropolitan	**78.3**	72.5	83.2
North & West Metropolitan	**75.4**	71.1	79.2
Southern Metropolitan	**78.8**	73.6	83.2
All metropolitan males	**76.7**	73.8	79.3
Barwon-South Western	**75.6**	69.2	81.0
Gippsland	**85.3**	79.1	90.0
Grampians	**76.3**	70.0	81.7
Hume	**83.6**	76.9	88.7
Loddon Mallee	**78.6**	72.3	83.8
All rural males	**79.5**	76.6	82.1
All Victorian males	**77.3**	**75.1**	**79.5**
FEMALES			
Eastern Metropolitan	**83.0**	79.0	86.3
North & West Metropolitan	**83.6**	79.9	86.7
Southern Metropolitan	**82.8**	78.7	86.2
All metropolitan females	**83.1**	80.9	85.1
Barwon-South Western	**84.5**	79.8	88.3
Gippsland	**83.9**	79.6	87.4
Grampians	**84.8**	80.2	88.5
Hume	**85.6**	80.3	89.7
Loddon Mallee	**85.3**	81.6	88.3
All rural females	**84.9**	82.9	86.7
All Victorian females	**83.5**	**81.7**	**85.1**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.

Cholesterol checks

Elevated blood cholesterol is an important risk factor for coronary heart disease, stroke and peripheral vascular disease (AIHW 2004). Cholesterol checks are recommended for persons at high risk of disease, such as smokers, those with a significant family history of coronary heart disease (a first-degree relative affected at an age under 60 years), those who are overweight or obese, those who have hypertension and those aged 45 years and over (National Heart Foundation of Australia and The Cardiac Society of Australia and New Zealand 2001).

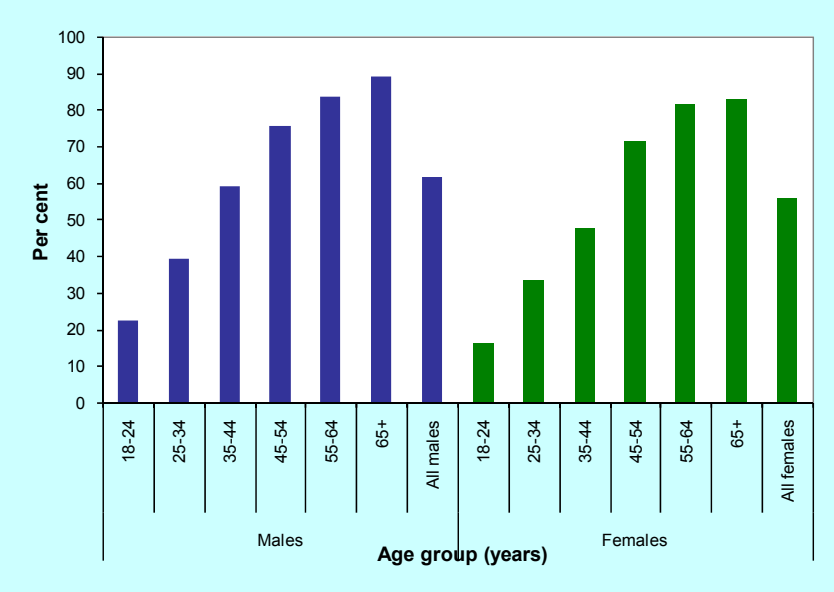
Table 2.44 and Figure 2.7 shows the proportion of persons aged 18 years and over who reported having had a blood cholesterol check in the two years preceding the survey, by age group and sex. The table shows that a higher proportion of males than females reported having had a blood cholesterol test in the past two years (61.5 per cent and 55.6 per cent respectively). The proportion of males and females who had had their blood cholesterol checked increased with age.

Table 2.44 Cholesterol check in the past two years, by age and sex, 2010

Age group (years)		95% CI	
MALES	**%**	LL	UL
18-24	**22.2**	15.0	31.6
25-34	**39.2**	32.2	46.7
35-44	**59.0**	53.7	64.1
45-54	**75.6**	71.4	79.3
55-64	**83.7**	79.9	87.0
65+	**89.1**	86.4	91.4
All males	**61.5**	**59.3**	**63.7**
FEMALES			
18-24	**15.8**	10.6	23.0
25-34	**33.3**	27.9	39.2
35-44	**47.5**	43.5	51.5
45-54	**71.1**	67.6	74.4
55-64	**81.5**	78.4	84.3
65+	**82.6**	79.9	85.0
All females	**55.6**	**53.8**	**57.4**
PERSONS			
18-24	**19.1**	14.4	24.9
25-34	**36.3**	31.8	41.0
35-44	**53.2**	49.9	56.5
45-54	**73.3**	70.6	75.8
55-64	**82.6**	80.2	84.8
65+	**85.5**	83.6	87.2
All persons	**58.5**	**57.1**	**60.0**

Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval
Point estimates are statistically different from each other if their confidence intervals **do not** overlap
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below the Victorian estimate

Figure 2.7 Cholesterol check in the past two years, by age and sex, 2010



Data are crude estimates, except that for 'all males' and 'all females' which were age-standardised to the 2006 Victorian population.

Table 2.45 shows the proportion of persons aged 18 years and over who reported having a blood cholesterol check in the preceding two years, by Department of Health region and sex. While there were no regional differences in males, a higher proportion of females from the metropolitan regions (56.8 per cent) had had a

blood cholesterol check, compared with females in the rural regions (52.3 per cent). Females in Grampians Region (45.9 per cent) were less likely to have had blood cholesterol check compared with females in the rural regions (52.3 per cent) and Victoria overall (55.6 per cent).

Table 2.45 Cholesterol check in the past two years, by Department of Health region and sex, 2010

		95% CI	
MALES	**%**	LL	UL
Eastern Metropolitan	**59.2**	53.5	64.6
North & West Metropolitan	**62.2**	57.8	66.4
Southern Metropolitan	**65.8**	60.8	70.5
All metropolitan males	**62.7**	59.9	65.5
Barwon-South Western	**60.3**	54.4	65.9
Gippsland	**58.7**	52.2	64.8
Grampians	**53.5**	47.6	59.3
Hume	**56.8**	50.7	62.7
Loddon Mallee	**61.4**	55.7	66.8
All rural males	**58.1**	55.2	60.9
All Victorian males	**61.5**	**59.3**	**63.7**
FEMALES			
Eastern Metropolitan	**55.3**	51.1	59.5
North & West Metropolitan	**59.9**	56.3	63.4
Southern Metropolitan	**54.5**	50.7	58.2
All metropolitan females	**56.8**	54.6	59.0
Barwon-South Western	**51.8**	47.1	56.5
Gippsland	**56.6**	51.5	61.5
Grampians	**45.9**	41.6	50.3
Hume	**55.0**	50.6	59.4
Loddon Mallee	**51.7**	47.5	55.8
All rural females	**52.3**	50.3	54.4
All Victorian females	**55.6**	**53.8**	**57.4**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Blood glucose checks

Blood glucose tests are used to detect the development of, or a predisposition to, diabetes mellitus. Individuals at risk of the disease are advised to have their blood glucose levels checked periodically. At risk groups include persons who are physically inactive, overweight or obese persons, those with high total cholesterol and those with high blood pressure (AIHW 2008).

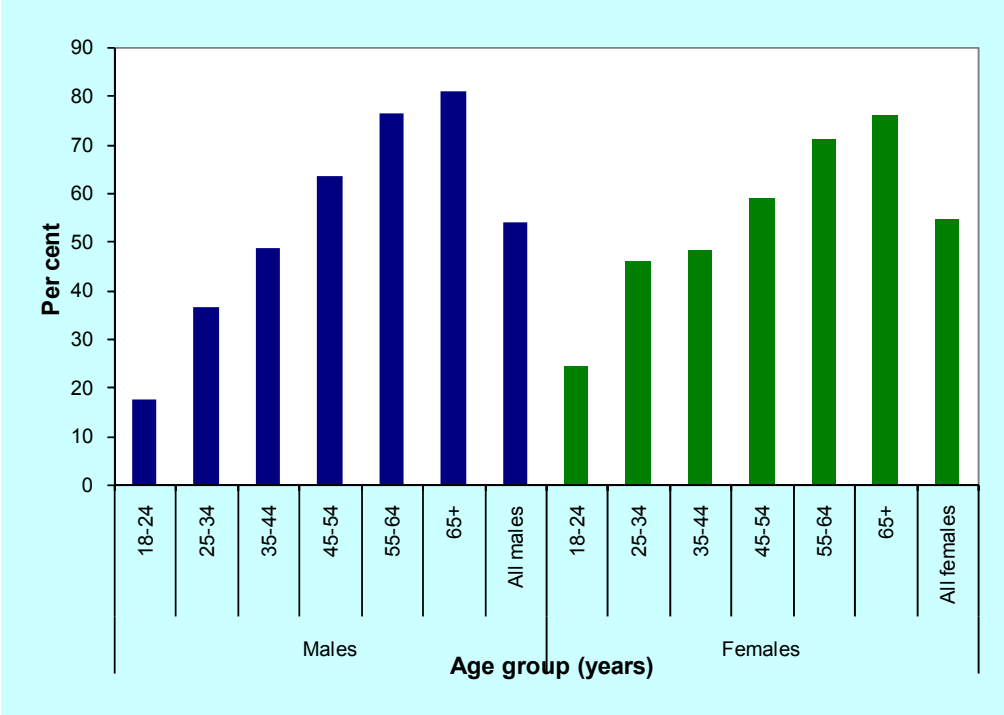
Table 2.46 shows the proportion of persons aged 18 years and over who reported having had a test for diabetes or a blood glucose check in the two years preceding the survey, by age and sex. Overall, there was no difference between the proportion of males and females who reported having had a blood glucose check in the past two years. However, the proportion of males and females who had had their blood glucose checked increased with age.

Table 2.46 Diabetes or blood glucose check in the past two years, by age and sex, 2010

Age group (years)		95% CI	
MALES	**%**	LL	UL
18-24	**17.4**	10.9	26.5
25-34	**36.6**	29.7	44.0
35-44	**48.7**	43.4	54.0
45-54	**63.3**	58.8	67.6
55-64	**76.2**	71.9	80.1
65+	**80.8**	77.4	83.8
All males	**53.9**	**51.6**	**56.2**
FEMALES			
18-24	**24.5**	18.0	32.3
25-34	**45.8**	40.0	51.8
35-44	**48.0**	44.1	52.0
45-54	**59.0**	55.2	62.7
55-64	**70.8**	67.3	74.2
65+	**76.0**	73.1	78.7
All females	**54.6**	**52.7**	**56.5**
PERSONS			
18-24	**20.8**	16.0	26.6
25-34	**41.2**	36.6	45.9
35-44	**48.4**	45.0	51.7
45-54	**61.1**	58.2	64.0
55-64	**73.5**	70.7	76.1
65+	**78.2**	76.0	80.2
All persons	**54.2**	**52.7**	**55.7**

Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Figure 2.8 Diabetes check in the past two years, by age and sex, 2010



Data are crude estimates, except that for 'all males' and 'all females' which were age-standardised to the 2006 Victorian population.

Table 2.47 shows the proportion of persons aged 18 years and over who reported having had a test for diabetes or a blood glucose check in the past two years, by Department of Health region and sex. While there were no regional differences in females, there was a lower proportion of males from Grampians Region (43.3 per cent) who had had their blood glucose checked in the past two years compared with males from Victoria (53.9 per cent).

Table 2.47 Diabetes check in the past two years, by Department of Health region and sex, 2010

		95% CI	
MALES	**%**	LL	UL
Eastern Metropolitan	**50.7**	45.3	56.1
North & West Metropolitan	**56.4**	51.6	61.1
Southern Metropolitan	**58.0**	52.8	62.9
All metropolitan males	**55.2**	52.2	58.0
Barwon-South Western	**50.3**	44.5	56.0
Gippsland	**51.3**	45.6	57.1
Grampians	**43.3**	37.8	48.9
Hume	**52.0**	45.7	58.3
Loddon Mallee	**50.2**	45.5	54.9
All rural males	**50.2**	47.6	52.8
All Victorian males	**53.9**	**51.6**	**56.2**
FEMALES			
Eastern Metropolitan	**54.1**	49.4	58.7
North & West Metropolitan	**56.5**	52.7	60.2
Southern Metropolitan	**55.7**	51.4	60.0
All metropolitan females	**55.3**	52.9	57.7
Barwon-South Western	**53.3**	48.2	58.4
Gippsland	**54.1**	48.8	59.3
Grampians	**51.0**	46.0	56.0
Hume	**55.1**	49.6	60.5
Loddon Mallee	**52.6**	48.1	57.1
All rural females	**53.3**	51.0	55.6
All Victorian females	**54.6**	**52.7**	**56.5**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Bowel cancer testing

In 2008, bowel (colon and rectum) cancer was the second most common new cancer in Victoria with 3,593 new cases (13% of all cancers) diagnosed (Cancer Council Victoria, 2010). Bowel cancer can be treated successfully if detected in its early stages, but currently, less than 40 per cent of bowel cancers are detected early (DoHA 2010b).

The survey asked respondents whether they had had a bowel examination to detect bowel cancer in the two years preceding the survey. They were also asked which of the following tests they had had in the past two years: colonoscopy, faecal occult blood test (FOBT), flexible sigmoidoscopy or barium enema.

Table 2.48 shows the proportion of persons aged 50 years and over who had had a bowel examination to detect bowel cancer in the past two years, by age and sex. Just over a third of persons aged 50 years and over had had a bowel examination (36.5 per cent). There was no difference between the sexes, with the exception that a higher proportion of males aged 75 years and over (39.3 per cent) compared with females (27.8 per cent) had had a bowel examination. There was a higher proportion of males and females aged 65-69 years and females aged 55-59 who had had a bowel examination compared with all ages.

Table 2.48 Bowel cancer testing in persons aged 50 years and over, by age and sex, 2010

Age group (years)		95% CI	
MALES	**%**	LL	UL
50-54	**31.5**	26.1	37.5
55-59	**41.5**	35.1	48.2
60-64	**31.2**	25.3	37.7
65-69	**55.5**	47.7	62.9
70-74	**41.1**	33.1	49.7
75+	**39.3**	33.5	45.4
All males (50+ years)	**38.8**	36.1	41.5
FEMALES			
50-54	**31.2**	26.6	36.3
55-59	**42.6**	37.3	48.1
60-64	**25.7**	21.2	30.8
65-69	**51.3**	45.1	57.5
70-74	**34.0**	27.6	40.9
75+	**27.8**	23.6	32.4
All females (50+ years)	**34.6**	32.5	36.8
PERSONS			
50-54	**31.4**	27.7	35.3
55-59	**42.1**	37.9	46.4
60-64	**28.4**	24.6	32.4
65-69	**53.2**	48.3	58.0
70-74	**37.3**	32.2	42.7
75+	**32.9**	29.3	36.6
All persons (50+ years)	**36.5**	34.8	38.2

Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Table 2.49 shows the proportion of persons aged 50 years and over who had had a bowel examination to detect bowel cancer in the past two years, by Department of Health region and sex. A higher proportion of males from the rural regions overall (43.6 per cent) had had a bowel examination compared with males from the metropolitan regions (36.6 per cent). There was also a higher proportion of males from Barwon-South Western Region (51.1 per cent) who had had a bowel examination compared with all Victorian males (38.8 per cent). By contrast, there were no regional differences in females.

Table 2.49 Bowel cancer testing in persons aged 50 years and over, by Department of Health region and sex, 2010

		95% CI	
MALES (50+ years)	**%**	LL	UL
Eastern Metropolitan	**36.4**	30.4	42.9
North & West Metropolitan	**36.1**	30.2	42.6
Southern Metropolitan	**36.0**	29.9	42.5
All metropolitan males	**36.6**	33.0	40.3
Barwon-South Western	**51.1**	44.8	57.3
Gippsland	**41.8**	35.6	48.3
Grampians	**40.1**	33.7	46.8
Hume	**43.6**	37.2	50.2
Loddon Mallee	**39.7**	33.6	46.2
All rural males	**43.6**	40.7	46.6
All Victorian males	**38.8**	**36.1**	**41.5**
FEMALES (50+ years)			
Eastern Metropolitan	**35.7**	30.9	40.8
North & West Metropolitan	**33.8**	28.9	39.0
Southern Metropolitan	**35.7**	30.6	41.0
All metropolitan females	**35.2**	32.4	38.3
Barwon-South Western	**33.1**	28.5	38.0
Gippsland	**35.0**	30.0	40.4
Grampians	**34.7**	29.9	39.9
Hume	**33.1**	28.4	38.3
Loddon Mallee	**31.8**	27.3	36.7
All rural females	**33.3**	31.2	35.6
All Victorian females	**34.6**	**32.5**	**36.8**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.

Table 2.50 shows the proportion of persons, aged 50 years and over, who had had a bowel examination to detect bowel cancer in the past two years, by type of test and sex. A little more than three in five persons aged 50 years and over had had a colonoscopy or sigmoidoscopy (58.3 per cent). A little more than two in four had a faecal occult blood test (FOBT) (42.9 per cent), while just under two in one-hundred had had a barium enema (1.6 per cent).

Table 2.50 Bowel cancer testing in persons aged 50 years and over, by type of test and sex, 2010

		95% CI	
	%	LL	UL
Colonoscopy/sigmoidoscopy			
Males	**53.0**	48.7	57.3
Females	**63.9**	60.3	67.4
Persons	**58.3**	55.4	61.1
FOBT			
Males	**46.4**	42.1	50.8
Females	**39.1**	35.6	42.7
Persons	**42.9**	40.1	45.8
Barium enema			
Males	**1.4**	0.8	2.6
Females	**1.8**	1.0	3.4
Persons	**1.6**	1.0	2.5

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
FOBT = faecal occult blood test.

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3 Self-Reported Health and Selected Health Conditions

Self-reported health status has been shown to be a reliable predictor of ill-health, future health care use and premature mortality, independent of other medical, behavioural or psychosocial risk factors (Idler & Benyami 1997, Miilunpalo et al 1997, Burstrom & Fredlund 2001).

Respondents were asked to summarise their perceptions of their health status by indicating whether, in general, they would say their health was excellent, very good, good, fair or poor. Respondents were also asked whether they had at any time in their life been told by a doctor that they had any of the following conditions: heart disease, stroke, cancer, osteoporosis or arthritis. If they indicated that they had been told they had arthritis, they were asked about the type of arthritis.

Summary

Self-reported health status

- Approximately four out of 10 Victorians (46.1 per cent) reported their health status as excellent or very good and a further one-third (36.9 per cent) reported their health status as good, while 16.7 per cent reported their health status as fair or poor.
- The proportion of males and females reporting excellent, very good, good, fair or poor health was similar between the sexes, and between those who resided in the rural compared to the metropolitan regions of Victoria.

Selected health conditions

- The prevalence of having ever been told by a doctor that a person had heart disease was 6.7 per cent, stroke (2.1 per cent), cancer (7.1 per cent), osteoporosis (5.0 per cent), and arthritis (18.8 per cent).
- The prevalence of heart disease, stroke, cancer, osteoporosis and arthritis was similar for males and females between the rural and metropolitan areas of Victoria.
- Almost one in two persons (43.9 per cent) reported having had pain, aching, stiffness or swelling in or around a joint in past 12 months, however these were predominantly in the older age groups (45 years and over). A greater proportion of males in rural regions (48.6 per cent) reported this than in metropolitan regions (40.4 per cent).
- About one in two persons overall reported either a hip problem (10.3 per cent), knee problem (32.3 per cent), or both (8.0 per cent). A similar proportion of females and males reported both hip and knee problems (9.1 and 6.7 per cent respectively). However, a greater proportion of females than males reported a hip problem only (13.2 and 7.7 per cent respectively). There were no differences in the prevalence of these problems in the metropolitan compared with the rural regions.
- Almost four in one-hundred (3.5 per cent) persons reported having a joint replacement. The highest proportion being in those aged 65 years and over (14.5 per cent). There was no difference in the proportion of those reporting joint replacement between metropolitan and rural regions.

Self-reported health status

Approximately four out of 10 Victorians (46.1 per cent) reported their health status as excellent or very good and a further one-third (36.9 per cent) reported their health status as good, while 16.7 per cent reported their health status as fair or poor (table 3.1).

There were no differences between the sexes by self-reported health status (figure 3.1). The proportion of males (figure 3.2) and females (figure 3.3) who reported fair or poor health increased with age, with the highest proportion being aged 65 years and over (23.7 and 21.9 per cent, respectively). Conversely, the proportion of males and females who reported excellent or very good health declined with age.

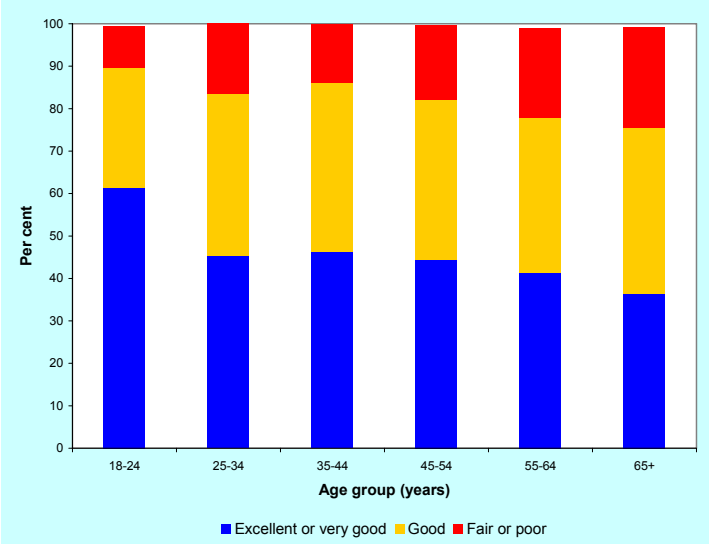
Table 3.1 Self-reported health status, by age group and sex, 2010

	Excellent or very good			Good			Fair or poor		
		95% CI			95% CI			95% CI	
Age group (years)	%	LL	UL	%	LL	UL	%	LL	UL
MALES									
18-24	61.3	51.2	70.6	28.4	20.2	38.3	9.8*	5.2	17.7
25-34	45.3	38.1	52.7	38.1	31.2	45.5	16.5	11.7	22.9
35-44	46.2	40.9	51.5	40.0	34.9	45.4	13.8	10.6	17.8
45-54	44.3	39.8	48.9	37.9	33.6	42.5	17.5	14.4	21.2
55-64	41.2	36.6	46.0	36.7	32.2	41.5	21.1	17.4	25.3
65+	36.3	32.4	40.4	39.2	35.2	43.4	23.7	20.2	27.5
All males	**45.2**	**42.7**	**47.8**	**37.3**	**34.9**	**39.8**	**17.1**	**15.4**	**19.0**
FEMALES									
18-24	48.5	39.9	57.2	37.2	29.2	45.9	14.3	9.4	21.3
25-34	42.8	37.1	48.7	42.8	37.0	48.8	14.4	10.8	19.1
35-44	53.0	49.0	57.0	33.9	30.3	37.8	13.0	10.5	16.0
45-54	48.3	44.5	52.2	36.5	33.0	40.3	14.7	12.2	17.6
55-64	46.0	42.2	49.9	34.8	31.2	38.6	18.8	15.9	22.1
65+	41.7	38.5	45.0	36.0	32.9	39.3	21.9	19.2	24.9
All females	**46.8**	**44.8**	**48.9**	**36.8**	**34.8**	**38.8**	**16.2**	**14.8**	**17.8**
PERSONS									
18-24	55.1	48.4	61.6	32.7	26.7	39.2	12.0	8.4	16.9
25-34	44.1	39.4	48.8	40.4	35.9	45.2	15.5	12.3	19.3
35-44	49.6	46.3	53.0	37.0	33.8	40.2	13.4	11.3	15.8
45-54	46.3	43.4	49.3	37.2	34.4	40.1	16.1	14.0	18.4
55-64	43.7	40.6	46.7	35.8	32.8	38.8	19.9	17.6	22.5
65+	39.3	36.8	41.9	37.5	35.0	40.1	22.7	20.5	25.0
All persons	**46.1**	**44.5**	**47.8**	**36.9**	**35.4**	**38.5**	**16.7**	**15.5**	**17.9**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

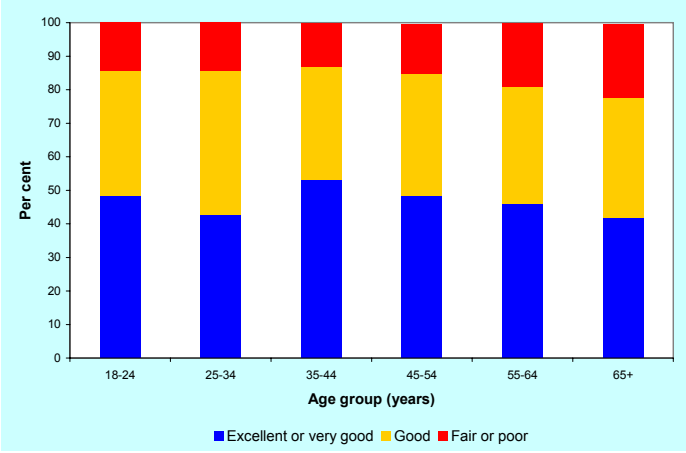
Figure 3.1 Self-reported health status, by sex, 2010

Figure 3.2 Self-reported health status in males, by age group, 2010



Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates.

Figure 3.3 Self-reported health status in females, by age group, 2010



Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates.

Self-reported health status by Department of Health region

Table 3.2 shows self-reported health status by Department of Health region and sex. The data show that self-reported health status was similar between males and females who resided in the rural compared to metropolitan regions of Victoria.

Table 3.2 Self-reported health status, by Department of Health region and sex, 2010

	Excellent or very good			Good			Fair or poor		
		95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
Eastern Metropolitan	**49.9**	43.8	55.9	**36.7**	30.9	42.8	**13.2**	9.9	17.5
North & West Metropolitan	**42.8**	37.9	47.9	**39.6**	34.8	44.7	**17.4**	14.2	21.1
Southern Metropolitan	**45.0**	39.4	50.6	**36.3**	31.1	41.9	**18.4**	14.4	23.2
All metropolitan males	**45.7**	42.5	48.9	**37.4**	34.4	40.6	**16.7**	14.5	19.1
Barwon-South Western	**43.8**	37.6	50.1	**36.5**	30.8	42.6	**19.0**	15.0	23.9
Gippsland	**40.8**	34.1	47.8	**37.1**	31.4	43.1	**22.2**	17.0	28.4
Grampians	**43.6**	37.4	50.0	**41.5**	35.6	47.7	**13.3**	10.1	17.4
Hume	**42.3**	35.4	49.5	**35.5**	28.8	42.7	**21.6**	16.7	27.4
Loddon Mallee	**50.4**	44.1	56.8	**33.3**	27.5	39.6	**15.8**	11.7	20.9
All rural males	**44.5**	41.4	47.6	**36.4**	33.5	39.3	**18.4**	16.3	20.8
All Victorian males	**45.2**	**42.7**	**47.8**	**37.3**	**34.9**	**39.8**	**17.1**	**15.4**	**19.0**
FEMALES									
Eastern Metropolitan	**47.7**	43.0	52.4	**37.8**	33.2	42.5	**14.6**	11.6	18.1
North & West Metropolitan	**42.3**	38.2	46.5	**37.5**	33.5	41.7	**19.8**	16.8	23.3
Southern Metropolitan	**50.0**	45.5	54.5	**35.8**	31.5	40.3	**14.0**	11.3	17.1
All metropolitan females	**46.2**	43.6	48.8	**37.0**	34.5	39.6	**16.6**	14.8	18.6
Barwon-South Western	**51.5**	46.3	56.7	**34.4**	29.8	39.3	**14.0**	10.5	18.5
Gippsland	**47.2**	41.8	52.6	**38.0**	32.9	43.5	**14.8**	11.5	18.8
Grampians	**44.6**	39.6	49.7	**38.0**	32.8	43.3	**17.5**	13.7	22.0
Hume	**50.9**	45.3	56.5	**34.0**	29.0	39.4	**14.7**	11.2	19.0
Loddon Mallee	**49.1**	44.5	53.8	**34.8**	30.5	39.3	**16.1**	13.0	19.8
All rural females	**48.7**	46.3	51.1	**35.8**	33.5	38.1	**15.5**	13.8	17.3
All Victorian females	**46.8**	**44.8**	**48.9**	**36.8**	**34.8**	**38.8**	**16.2**	**14.8**	**17.8**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Self-reported health status, by selected risk factors

Table 3.3 shows self-reported health status for males and females, by selected risk factors. Males and females who reported fair of poor health were more likely to have high or very high levels of psychological distress, to be sedentary and/or obese. Males who reported fair or poor health were also more likely to be at long-term risk of alcohol-related harm and/or to have diabetes, while females were more likely to be current smokers and/or to have not met the guidelines for both fruit and vegetable consumption.

Table 3.3 Self-reported health, by selected risk factors, 2010

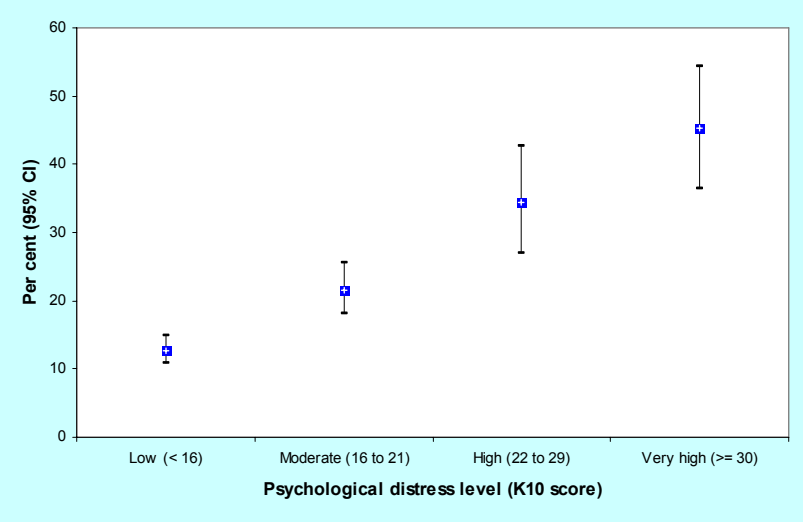
	Excellent or very good			Good			Fair or poor		
		95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL
MALES	**45.2**	**42.7**	**47.8**	**37.3**	**34.9**	**39.8**	**17.1**	**15.4**	**19.0**
Psychological distress [a]									
Low (< 16)	**50.8**	47.7	53.8	**36.4**	33.5	39.3	**12.7**	10.9	14.9
Moderate (16 to 21)	**37.9**	32.6	43.5	**40.5**	35.1	46.2	**21.6**	18.0	25.6
High (22 to 29)	**26.7**	19.5	35.4	**38.0**	30.0	46.8	**34.5**	27.0	42.7
Very high (>= 30)	**18.3**	11.9	27.3	**19.0***	10.7	31.6	**45.3**	36.5	54.4
Physical activity [b]									
Sedentary	**28.5**	21.7	36.5	**37.4**	27.2	48.8	**28.4**	20.9	37.2
Insufficient time & sessions	**39.6**	34.7	44.7	**38.4**	33.8	43.3	**21.9**	18.0	26.4
Sufficient time & sessions	**50.4**	47.2	53.6	**36.1**	33.1	39.2	**13.2**	11.2	15.6
Alcohol use [c]									
Abstainer	**43.0**	36.3	50.0	**36.6**	30.2	43.6	**19.8**	15.6	24.7
Low risk	**46.3**	43.6	49.1	**37.5**	34.8	40.3	**15.9**	14.1	17.9
Risky or high risk	**35.4**	28.4	43.1	**37.2**	30.0	45.0	**26.4**	20.3	33.6
Met fruit / vegetable guidelines [d]									
Both guidelines	**48.7**	39.9	57.6	**26.8**	20.1	34.7	**11.5***	6.5	19.6
Vegetable guidelines	**52.1**	43.9	60.2	**35.1**	28.7	42.1	**12.7**	7.8	19.8
Fruit guidelines	**50.2**	46.4	54.0	**35.3**	31.8	39.0	**14.3**	11.9	17.1
Neither	**41.4**	38.0	44.8	**39.0**	35.7	42.4	**19.1**	16.7	21.8
Smoking status									
Current smoker	**29.6**	24.8	35.0	**43.6**	38.1	49.2	**23.9**	19.5	28.9
Ex-smoker	**40.3**	34.7	46.3	**41.5**	35.8	47.5	**17.8**	14.3	21.9
Non-smoker	**51.7**	48.3	55.2	**33.8**	30.6	37.2	**14.3**	12.0	16.9
Diabetes (excluding GDM)									
No	**46.9**	44.3	49.4	**37.3**	34.8	39.8	**15.6**	13.8	17.4
Yes	**19.9**	15.9	24.6	**32.1**	26.7	38.0	**25.8**	20.6	31.9
Body weight status [e]									
Underweight	**22.9**	18.9	27.5	**6.1***	3.1	11.7	**19.2**	15.7	23.3
Normal	**55.0**	50.8	59.0	**34.0**	30.1	38.0	**10.8**	8.8	13.3
Overweight	**45.7**	41.4	50.0	**40.2**	36.1	44.6	**13.9**	11.2	17.0
Obese	**26.0**	20.9	31.8	**40.6**	35.1	46.4	**33.0**	27.5	38.9
FEMALES	**46.8**	**44.8**	**48.9**	**36.8**	**34.8**	**38.8**	**16.2**	**14.8**	**17.8**
Psychological distress [a]									
Low (< 16)	**55.0**	52.2	57.7	**35.5**	32.9	38.2	**9.4**	8.0	11.1
Moderate (16 to 21)	**38.0**	34.0	42.1	**41.4**	37.5	45.4	**20.6**	17.3	24.3
High (22 to 29)	**26.1**	20.6	32.5	**38.9**	32.5	45.7	**34.2**	28.3	40.5
Very high (>= 30)	**13.4***	7.8	21.9	**25.9**	18.5	34.9	**58.6**	50.6	66.3
Physical activity [b]									
Sedentary	**35.3**	27.3	44.1	**38.0**	29.6	47.2	**22.7**	17.8	28.6
Insufficient time & sessions	**38.4**	34.8	42.1	**42.2**	38.6	45.9	**19.1**	16.4	22.1
Sufficient time & sessions	**54.1**	51.3	56.9	**33.7**	31.1	36.4	**12.2**	10.5	14.0
Alcohol use [c]									
Abstainer	**39.0**	34.4	43.9	**39.5**	35.0	44.2	**21.1**	17.6	25.2
Low risk	**49.6**	47.3	52.0	**36.0**	33.7	38.3	**14.2**	12.7	15.9
Risky or high risk	**40.5**	32.1	49.4	**38.1**	29.4	47.6	**19.3**	12.1	29.5
Met fruit / vegetable guidelines [d]									
Both guidelines	**62.5**	54.5	69.9	**30.7**	23.6	38.9	**6.6**	4.5	9.6
Vegetable guidelines only	**60.8**	53.4	67.7	**27.7**	22.2	34.1	**11.4**	7.1	17.7
Fruit guidelines only	**52.8**	49.8	55.6	**33.5**	30.8	36.3	**13.6**	11.8	15.6
Neither	**39.5**	36.6	42.5	**41.1**	38.1	44.2	**19.2**	16.9	21.7
Smoking status									
Current smoker	**32.8**	28.1	37.8	**40.0**	35.4	44.7	**25.1**	20.8	29.9
Ex-smoker	**48.4**	43.6	53.3	**37.4**	32.8	42.3	**14.0**	11.5	16.8
Non-smoker	**50.2**	47.5	52.8	**35.5**	33.0	38.1	**14.1**	12.4	15.9
Diabetes (excluding GDM)									
No	**47.9**	45.8	50.0	**36.7**	34.7	38.7	**15.3**	13.9	16.9
Yes	**25.4**	18.0	34.7	**44.0**	35.4	53.0	**20.8**	16.3	26.3
Body weight status [e]									
Underweight	**55.6**	44.7	66.0	**24.0**	15.5	35.1	**20.4**	13.3	30.0
Normal	**55.9**	52.9	58.8	**33.4**	30.6	36.3	**10.5**	8.8	12.5
Overweight	**47.8**	43.4	52.1	**36.2**	32.1	40.6	**16.0**	13.4	18.9
Obese	**26.1**	22.2	30.5	**43.0**	38.4	47.7	**30.6**	26.5	35.0

[a] Based on the Kessler 10 scale for psychological distress.
[b] Based on National Guidelines (DoHA, 1999).

[c] Based on National Guidelines (NHMRC, 2001) for long-term risk of alcohol-related harm.
[d] Based on National Guidelines (NHMRC, 2003). The four categories are not mutually exclusive.
[e] Based on Body Mass Index (BMI).
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

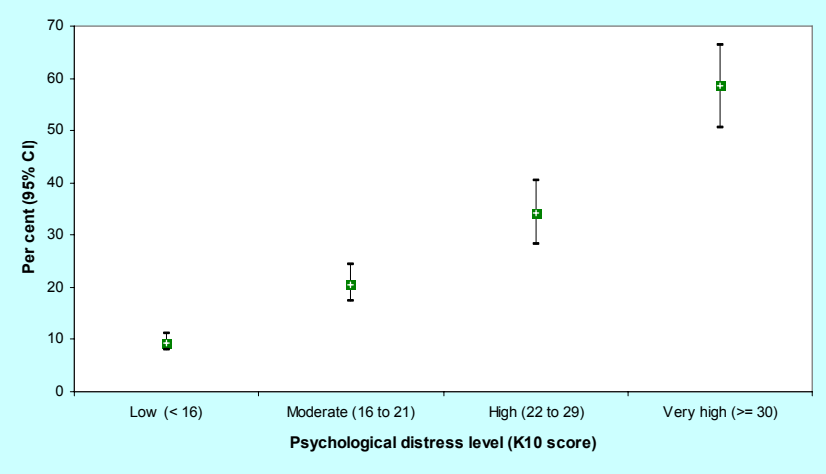
Figures 3.4a and 3.4b show the relationship between fair or poor self-reported health status and psychological distress in males and females, respectively. As the level of psychological distress increased so did the proportion of males and females who reported fair or poor health status.

Figure 3.4a Fair or poor self-reported health status in males, by level of psychological distress[a], 2010



[a] Based on the Kessler 10 scale for psychological distress.
Data were age-standardised to the 2006 Victorian population.

Figure 3.4b Fair or poor self-reported health status in females, by level of psychological distress[a], 2010



[a] Based on the Kessler 10 scale for psychological distress.
Data were age-standardised to the 2006 Victorian population.

Trend over time

The trend over time, from 2005 to 2010, of self-reported health status in adult Victorians, by sex, is presented in Table 3.4. The proportion of males and females, by self-reported health status, irrespective of their rating, remained constant between 2005 and 2010.

Table 3.4 Self-reported health status, by sex, 2005-2010

	Excellent			Very good			Good			Fair			Poor		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL
Males															
2005	**11.2**	9.7	12.9	**33.1**	30.8	35.5	**37.3**	34.9	39.6	**14.8**	13.1	16.6	**3.6**	2.8	4.6
2006	**12.5**	11.0	14.2	**34.5**	32.1	37.0	**36.4**	34.0	38.9	**13.2**	11.7	14.9	**3.1**	2.4	4.0
2007	**11.1**	9.6	12.8	**32.6**	30.3	35.0	**40.2**	37.7	42.8	**12.6**	11.1	14.2	**3.3**	2.5	4.3
2008	**11.2**	10.4	12.1	**30.2**	28.9	31.4	**39.2**	37.9	40.6	**15.8**	14.9	16.8	**3.4**	3.0	3.8
2009	**12.6**	11.1	14.2	**30.1**	28.0	32.3	**37.7**	35.4	40.0	**15.4**	13.8	17.2	**3.7**	2.9	4.5
2010	**12.5**	10.9	14.4	**32.7**	30.4	35.1	**37.3**	34.9	39.8	**14.0**	12.4	15.8	**3.1**	2.5	3.9
Females															
2005	**11.5**	10.4	12.8	**34.4**	32.6	36.3	**36.9**	35.0	38.9	**13.7**	12.4	15.1	**3.3**	2.6	4.1
2006	**12.7**	11.5	14.0	**34.7**	32.8	36.6	**37.8**	35.9	39.8	**10.9**	9.8	12.2	**3.7**	3.0	4.6
2007	**13.5**	12.2	15.0	**33.8**	31.9	35.7	**36.0**	34.1	38.1	**13.4**	12.0	14.8	**3.1**	2.6	3.8
2008	**12.0**	11.4	12.7	**33.8**	32.8	34.9	**36.4**	35.4	37.5	**13.9**	13.1	14.6	**3.7**	3.3	4.1
2009	**12.4**	11.2	13.6	**34.0**	32.2	35.8	**34.8**	33.1	36.7	**14.7**	13.4	16.1	**3.8**	3.2	4.6
2010	**11.9**	10.7	13.2	**34.9**	33.0	36.9	**36.8**	34.8	38.8	**12.5**	11.3	13.9	**3.7**	3.0	4.5
Persons															
2005	**11.4**	10.5	12.4	**33.8**	32.3	35.3	**37.0**	35.5	38.6	**14.3**	13.2	15.4	**3.4**	2.9	4.0
2006	**12.6**	11.6	13.7	**34.6**	33.0	36.1	**37.2**	35.6	38.7	**12.1**	11.1	13.1	**3.4**	2.9	4.0
2007	**12.3**	11.3	13.5	**33.2**	31.7	34.8	**38.1**	36.5	39.7	**13.0**	12.0	14.1	**3.2**	2.7	3.8
2008	**11.7**	11.1	12.2	**32.0**	31.2	32.9	**37.8**	36.9	38.6	**14.8**	14.2	15.4	**3.5**	3.2	3.8
2009	**12.5**	11.5	13.5	**32.1**	30.7	33.5	**36.2**	34.7	37.6	**15.1**	14.1	16.2	**3.7**	3.3	4.3
2010	**12.2**	11.2	13.3	**33.9**	32.4	35.5	**36.9**	35.4	38.5	**13.3**	12.2	14.4	**3.4**	2.9	3.9

Data were age-standardised to the 2006 Victorian population
Ordinary least squares linear regression was used to test for trends over time

Selected health conditions

Heart Disease

In 2010, 6.7 per cent of adults reported having ever been told by a doctor that they had heart disease (table 3.5). The prevalence of heart disease increased with increasing age for both males and females, with the highest estimates occurring in those aged 65 years and over (30.4 and 17.5 per cent, respectively). The prevalence of heart disease in those aged 65 years and over was higher in males (30.4 per cent) compared to females (17.5 per cent).

The age-standardised prevalence of heart disease in adult males and females was similar in those who resided in the rural compared to the metropolitan regions (table 3.6).

Stroke

The prevalence of doctor-diagnosed stroke in adults was 2.1 per cent (table 3.5). There was no difference between the sexes. However, the prevalence of stroke increased with increasing age, with the highest estimates occurring in those aged 65 years and over (7.8 per cent).

The age-standardised prevalence of stroke in adult males and females was similar in those who resided in the rural compared to the metropolitan regions (table 3.6).

Cancer

The prevalence of having ever been diagnosed by a doctor with cancer in adults was 7.1 per cent. There was no difference between the sexes. However, the prevalence of cancer increased with increasing age, with the highest estimates occurring in those aged 65 years and over (7.1 per cent).

The age-standardised prevalence of cancer in adult males and females was similar in those who resided in the rural compared to the metropolitan regions (table 3.6).

Osteoporosis

The prevalence of having ever been diagnosed by a doctor with osteoporosis was 5.0 per cent (table 3.5). The prevalence was higher in females (7.3 per cent) than males (2.5 per cent) and increased with age, with the highest estimates occurring in those aged 65 years and over (22.9 and 7.3 per cent, respectively).

The age-standardised prevalence of osteoporosis in adult males and females was similar in those who resided in the rural compared to the metropolitan regions (table 3.6).

Arthritis

Almost one in five adults (18.8 per cent) had ever been diagnosed by a doctor with arthritis (table 3.5). The prevalence of arthritis was higher for females (22.8 per cent), compared to males (14.4 per cent) and increased with age, with the highest estimates occurring in those aged 65 years and over (60.9 and 40.6 per cent, respectively).

The age-standardised prevalence of arthritis in adult males and females was similar in those who resided in the rural compared to the metropolitan regions (table 3.6).

Table 3.5 Life-time prevalence of heart disease, stroke, cancer, osteoporosis and arthritis, by age group and sex, 2010

	Heart disease			Stroke			Cancer			Osteoporosis			Arthritis		
		95% CI			95% CI			95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Age group (years)															
MALES															
18-34	**	**	**	**	**	**	2.8*	1.4	5.7	**	**	**	2.2*	1.0	4.4
35-44	**	**	**	**	**	**	2.4*	1.3	4.5	**	**	**	7.1	4.9	10.2
45-54	5.2	3.6	7.4	1.5*	0.7	3.1	4.7	3.1	7.2	1.7*	0.9	3.5	12.6	9.8	16.0
55-64	14.6	11.6	18.4	3.2*	1.9	5.4	10.0	7.4	13.3	3.6	2.2	5.8	23.9	20.1	28.1
65+	30.4	26.7	34.4	9.3	7.2	12.1	21.4	18.2	25.1	7.3	5.3	9.8	40.6	36.6	44.8
All males	**8.4**	**7.5**	**9.3**	**2.5**	**2.0**	**3.1**	**7.1**	**6.2**	**8.2**	**2.5**	**1.9**	**3.2**	**14.4**	**13.2**	**15.7**
FEMALES															
18-34	**	**	**	**	**	**	1.5*	0.8	3.1	**	**	**	3.8*	2.2	6.4
35-44	1.2*	0.6	2.5	0.7*	0.3	1.7	3.7	2.5	5.5	1.1*	0.5	2.4	8.2	6.3	10.6
45-54	3.9	2.6	5.7	1.0*	0.4	2.3	8.0	6.2	10.3	5.4	3.9	7.6	19.9	17.0	23.1
55-64	9.3	7.2	11.8	1.5*	0.9	2.7	10.0	7.9	12.5	15.2	12.6	18.2	43.8	40.0	47.7
65+	17.5	15.1	20.2	6.6	5.1	8.5	17.5	15.1	20.2	22.9	20.3	25.8	60.9	57.6	64.1
All females	**5.4**	**4.7**	**6.0**	**1.7**	**1.4**	**2.1**	**7.1**	**6.3**	**7.9**	**7.3**	**6.6**	**8.0**	**22.8**	**21.7**	**24.1**
PERSONS															
18-34	**	**	**	**	**	**	2.2*	1.3	3.7	**	**	**	2.9	1.9	4.5
35-44	0.8*	0.4	1.6	0.6*	0.3	1.3	3.1	2.1	4.3	1.0*	0.5	1.9	7.6	6.1	9.5
45-54	4.5	3.5	5.9	1.3*	0.7	2.1	6.4	5.1	8.0	3.6	2.6	4.9	16.3	14.2	18.6
55-64	11.9	10.0	14.1	2.4	1.6	3.5	10.0	8.3	12.0	9.5	7.9	11.3	34.0	31.2	36.9
65+	23.3	21.1	25.7	7.8	6.5	9.4	19.3	17.2	21.4	15.9	14.1	17.9	51.8	49.1	54.4
All persons	**6.7**	**6.2**	**7.3**	**2.1**	**1.8**	**2.4**	**7.1**	**6.5**	**7.8**	**5.0**	**4.5**	**5.6**	**18.8**	**18.0**	**19.7**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE greater than 50 per cent and is not reported as it is unreliable for general use.

Table 3.6 Life-time prevalence of heart disease, stroke, cancer, osteoporosis and arthritis, by Department of Health region and sex, 2010

	Heart disease			Stroke			Cancer			Osteoporosis			Arthritis		
		95% CI			95% CI			95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
MALES															
Eastern Metropolitan	**7.6**	5.8	9.9	**2.4***	1.5	4.0	**7.2**	5.1	10.1	**2.1***	1.2	3.7	**13.4**	10.6	16.8
North & West Metropolitan	**8.0**	6.1	10.4	**2.3***	1.4	3.9	**6.1**	4.4	8.3	**2.7**	1.7	4.4	**14.9**	12.4	17.8
Southern Metropolitan	**8.4**	6.5	10.7	**2.6**	1.6	4.1	**8.6**	6.2	11.9	**2.7***	1.2	5.7	**11.9**	9.5	14.9
All metropolitan males	**8.0**	6.8	9.3	**2.5**	1.8	3.4	**7.2**	5.9	8.6	**2.5**	1.7	3.5	**13.5**	11.9	15.22
Barwon-South Western	**8.5**	6.6	10.9	**2.8**	1.8	4.3	**7.6**	4.9	11.8	**1.7***	1.0	3.0	**15.6**	12.9	18.9
Gippsland	**10.6**	8.4	13.2	**2.3***	1.3	3.9	**6.8**	5.0	9.2	**1.6***	0.9	2.7	**16.9**	14.0	20.3
Grampians	**8.8**	6.6	11.8	**2.4***	1.4	4.3	**6.5**	4.4	9.5	**2.1***	1.1	3.7	**14.8**	11.9	18.3
Hume	**10.0**	7.8	12.6	**3.5**	2.3	5.5	**9.2**	6.9	12.0	**3.3**	2.1	5.2	**17.6**	14.2	21.7
Loddon Mallee	**8.3**	6.6	10.4	**1.6***	0.8	2.9	**5.0**	3.5	7.1	**2.6***	1.5	4.6	**17.2**	14.2	20.6
All rural males	**9.2**	8.2	10.2	**2.5**	2.0	3.2	**7.1**	5.9	8.4	**2.3**	1.8	2.9	**16.7**	15.21	18.3
All Victorian males	**8.4**	**7.5**	**9.3**	**2.5**	**2.0**	**3.1**	**7.1**	**6.2**	**8.2**	**2.5**	**1.9**	**3.2**	**14.4**	**13.2**	**15.7**
FEMALES															
Eastern Metropolitan	**4.9**	3.7	6.5	**1.5***	0.9	2.5	**7.9**	6.3	9.9	**7.6**	6.2	9.4	**21.8**	19.5	24.3
North & West Metropolitan	**5.9**	4.5	7.7	**1.6***	1.0	2.8	**5.9**	4.4	7.7	**8.0**	6.4	10.1	**24.5**	21.8	27.3
Southern Metropolitan	**4.8**	3.6	6.4	**1.6***	0.9	2.6	**7.0**	5.2	9.3	**5.9**	4.6	7.6	**21.0**	18.2	24.1
All metropolitan females	**5.3**	4.5	6.3	**1.6**	1.2	2.1	**6.8**	5.8	7.9	**7.3**	6.4	8.4	**22.6**	21.1	24.3
Barwon-South Western	**3.3**	2.4	4.4	**1.4**	0.9	2.3	**7.3**	5.7	9.3	**6.7**	5.4	8.2	**20.2**	17.9	22.6
Gippsland	**6.1**	4.4	8.5	**2.0***	1.2	3.4	**6.2**	4.7	8.1	**6.6**	5.1	8.3	**22.0**	19.1	25.2
Grampians	**6.9**	5.2	9.2	**2.2**	1.4	3.5	**7.3**	5.3	9.8	**7.5**	6.0	9.4	**23.5**	20.5	26.8
Hume	**5.9**	4.5	7.7	**2.9**	1.9	4.6	**11.8**	8.5	16.3	**7.3**	5.9	9.1	**24.7**	22.1	27.5
Loddon Mallee	**6.3**	4.9	8.3	**2.1**	1.3	3.4	**8.5**	6.6	10.9	**8.1**	6.5	9.9	**27.1**	24.3	30.1
All rural females	**5.5**	4.8	6.2	**2.1**	1.7	2.6	**8.1**	7.1	9.2	**7.1**	6.4	7.9	**23.4**	22.2	24.8
All Victorian females	**5.4**	**4.7**	**6.0**	**1.7**	**1.4**	**2.1**	**7.1**	**6.3**	**7.9**	**7.3**	**6.6**	**8.0**	**22.8**	**21.7**	**24.1**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Trend over time

Heart disease

The age-standardised prevalence of heart disease in males and females remained constant between 2003 and 2010 (table 3.7).

Table 3.7 Prevalence of heart disease, by sex, 2003-2010

		95% CI	
Males	**%**	LL	UL
2003	**8.4**	7.3	9.7
2004	**7.9**	6.8	9.0
2005	**8.4**	7.5	9.6
2006	**8.6**	7.6	9.7
2007	**8.7**	7.6	9.9
2008	**8.3**	7.8	8.9
2009	**9.0**	8.1	10.1
2010	**8.4**	7.5	9.3
Females			
2003	**4.8**	4.1	5.6
2004	**4.1**	3.4	4.9
2005	**6.0**	5.2	7.0
2006	**5.7**	4.9	6.6
2007	**5.2**	4.6	6.0
2008	**5.2**	4.9	5.6
2009	**4.7**	4.1	5.3
2010	**5.4**	4.7	6.0
Persons			
2003	**6.4**	5.7	7.1
2004	**5.7**	5.1	6.4
2005	**7.2**	6.5	7.9
2006	**7.1**	6.4	7.8
2007	**6.8**	6.2	7.5
2008	**6.7**	6.3	7.0
2009	**6.8**	6.2	7.4
2010	**6.7**	6.2	7.3

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Stroke

The age-standardised prevalence of stroke in males and females remained constant between 2003 and 2010 (table 3.8).

Table 3.8 Prevalence of stroke by sex, 2003-2010

		95% CI	
Males	**%**	LL	UL
2003	**1.7**	1.2	2.3
2004	**3.1**	2.4	4.1
2005	**2.5**	1.9	3.2
2006	**2.3**	1.8	3.0
2007	**2.3**	1.8	3.0
2008	**2.8**	2.5	3.2
2009	**3.2**	2.6	3.9
2010	**2.5**	2.0	3.1
Females			
2003	**1.7**	1.3	2.3
2004	**2.2**	1.8	2.8
2005	**1.7**	1.4	2.2
2006	**1.9**	1.5	2.5
2007	**1.5**	1.2	2.0
2008	**2.3**	2.0	2.5
2009	**2.1**	1.7	2.5
2010	**1.7**	1.4	2.1
Persons			
2003	**1.7**	1.4	2.1
2004	**2.6**	2.2	3.2
2005	**2.1**	1.7	2.5
2006	**2.1**	1.7	2.5
2007	**1.9**	1.6	2.3
2008	**2.5**	2.3	2.8
2009	**2.6**	2.2	3.0
2010	**2.1**	1.8	2.4

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Cancer

The age-standardised prevalence of cancer in females and all persons (but not males) significantly increased between 2003 and 2010 (table 3.9).

Table 3.9 Prevalence of cancer, by sex, 2003-2010

		95% CI	
Males	**%**	LL	UL
2003	**6.8**	5.7	8.1
2004	**5.5**	4.5	6.7
2005	**6.7**	5.7	7.8
2006	**5.8**	4.9	6.7
2007	**6.6**	5.7	7.6
2008	**6.1**	5.6	6.6
2009	**6.7**	5.8	7.6
2010	**7.1**	6.2	8.2
Females			
2003	**6.6**	5.7	7.5
2004	**6.4**	5.5	7.4
2005	**6.7**	5.9	7.5
2006	**7.0**	6.2	8.0
2007	**6.7**	5.9	7.6
2008	**7.1**	6.6	7.5
2009	**7.1**	6.4	7.9
2010	**7.1**	6.3	7.9
Persons			
2003	**6.6**	5.9	7.3
2004	**5.9**	5.2	6.6
2005	**6.6**	6.0	7.3
2006	**6.3**	5.7	7.0
2007	**6.6**	6.0	7.3
2008	**6.6**	6.2	6.9
2009	**6.9**	6.3	7.5
2010	**7.1**	6.5	7.8

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Osteoporosis

The age-standardised prevalence of osteoporosis in males and females significantly increased between 2003 and 2010 (table 3.10).

Table 3.10 Prevalence of osteoporosis, by sex, 2003-2010

		95% CI	
Males	**%**	LL	UL
2003	**1.4**	0.9	2.0
2004	**1.9**	1.4	2.5
2005	**1.8**	1.3	2.5
2006	**1.7**	1.3	2.3
2007	**1.9**	1.4	2.5
2008	**2.2**	1.9	2.5
2009	**1.9**	1.5	2.5
2010	**2.5**	1.9	3.2
Females			
2003	**6.6**	5.7	7.6
2004	**6.7**	5.9	7.6
2005	**6.8**	6.1	7.7
2006	**6.9**	6.0	7.8
2007	**6.8**	6.0	7.6
2008	**7.0**	6.6	7.5
2009	**6.7**	6.0	7.5
2010	**7.3**	6.6	8.0
Persons			
2003	**4.3**	3.7	4.9
2004	**4.6**	4.1	5.2
2005	**4.5**	4.0	5.1
2006	**4.5**	4.0	5.1
2007	**4.5**	4.0	5.0
2008	**4.8**	4.5	5.1
2009	**4.5**	4.1	5.0
2010	**5.0**	4.5	5.6

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Arthritis

The age-standardised prevalence of arthritis in males and females remained constant between 2003 and 2010 (Table 3.11).

Table 3.11 Prevalence of arthritis, by sex, 2003-2010

		95% CI	
Males	**%**	LL	UL
2003	**16.8**	15.3	18.4
2004	**17.2**	15.8	18.8
2005	**15.7**	14.4	17.1
2006	**15.3**	13.9	17.0
2007	**16.2**	14.8	17.7
2008	**16.6**	15.9	17.4
2009	**16.3**	15.0	17.6
2010	**14.4**	13.2	15.7
Females			
2003	**23.5**	22.1	24.9
2004	**23.3**	22.0	24.6
2005	**23.7**	22.4	25.0
2006	**23.8**	22.6	25.2
2007	**24.5**	23.2	25.9
2008	**23.4**	22.8	24.1
2009	**23.4**	22.3	24.5
2010	**22.8**	21.7	24.1
Persons			
2003	**20.4**	19.3	21.4
2004	**20.5**	19.5	21.6
2005	**19.9**	18.9	20.8
2006	**19.9**	18.8	20.9
2007	**20.6**	19.6	21.6
2008	**20.2**	19.7	20.7
2009	**20.1**	19.2	20.9
2010	**18.8**	18.0	19.7

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Obesity is a risk factor for both osteoarthritis (ARC 2009) and rheumatoid arthritis (Symmons & Harrison 2000). Table 3.12 shows the association between obesity and arthritis. There was a significantly higher prevalence of arthritis in males (19.7 per cent) and females (27.5 per cent) who were obese (BMI≥30 kg/m^2) compared to all males (14.4 per cent) and all females (22.8 per cent). Conversely, there was a significantly lower prevalence of arthritis in males and females who were underweight (BMI < 18.5 kg/m^2) or of normal weight (BMI of 18.5 to 24.9 kg/m^2).

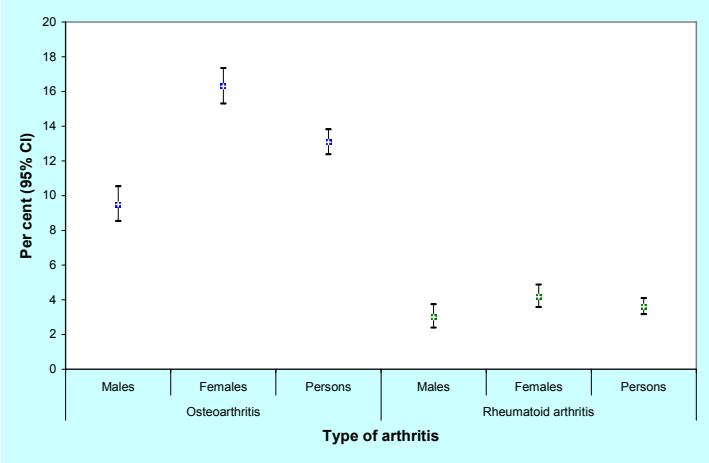
Table 3.12 Prevalence of arthritis by body weight status[a] and sex, 2010

	No arthritis			Arthritis		
		95% CI			95% CI	
	%	LL	UL	%	LL	UL
MALES						
Underweight	39.1	35.1	43.3	9.1	5.8	14.1
Normal	89.1	86.9	90.9	10.7	8.9	12.9
Overweight	85.2	83.1	87.2	14.5	12.5	16.6
Obese	80.1	76.9	82.9	19.7	16.9	22.8
All males	**85.3**	**84.0**	**86.5**	**14.4**	**13.2**	**15.7**
FEMALES						
Underweight	85.3	78.2	90.3	14.7	9.7	21.8
Normal	78.8	76.9	80.7	20.7	18.9	22.7
Overweight	76.2	73.2	78.9	23.6	20.9	26.6
Obese	72.2	69.5	74.8	27.5	25.0	30.2
All females	**76.9**	**75.6**	**78.1**	**22.8**	**21.7**	**24.1**
PERSONS						
Underweight	84.6	78.0	89.5	15.4	10.5	22.0
Normal	83.0	81.5	84.3	16.7	15.4	18.1
Overweight	81.6	79.9	83.2	18.1	16.6	19.8
Obese	76.2	74.1	78.2	23.6	21.6	25.7
All persons	**80.9**	**80.0**	**81.8**	**18.8**	**18.0**	**19.7**

[a] Based on Body Mass Index (BMI).
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below the Victorian estimate.

Figure 3.5 shows the prevalence of arthritis by sex and type of arthritis. Osteoarthritis was the more common type of arthritis reported (13.1 per cent), while 3.6 per cent of adults reported rheumatoid arthritis (3.6 per cent). Females had a higher prevalence of osteoarthritis compared to males (16.3 and 9.5 per cent respectively). However, the data show that the prevalence of rheumatoid arthritis was not significantly different between females and males (4.2 and 3.0 per cent respectively); although rheumatoid arthritis is known to more commonly afflict females (The Johns Hopkins Arthritis Center, 2012).

Figure 3.5 Prevalence of arthritis, by type and sex, 2010



Data were age-standardised to the 2006 Victorian population.

Survey respondents were asked if in the past twelve months, they had experienced pain, aching, stiffness, or swelling in, or around, a joint (this excluded back pain and included tennis elbow). Almost one in two respondents (43.9 per cent) reported 'yes' (Table 3.13). The proportion responding 'yes' increased with increasing age, with the highest proportion of males (50.5 per cent) and females (58.9 per cent) being aged 65 years or over. While there were no differences between the sexes in the younger age groups (18 to 44 years), a significantly higher proportion of females compared to males aged 45 and over responded 'yes'.

Table 3.13 Proportion of adults who had experienced pain, aching, stiffness or swelling in or around a joint in past 12 months, by age group and sex, 2010

Age group (years)		95% CI	
MALES	**%**	LL	UL
18-34	**32.4**	27.2	38.2
35-44	**43.5**	38.3	48.8
45-54	**45.3**	40.8	49.9
55-64	**47.5**	42.7	52.3
65+	**50.5**	46.3	54.7
All males	**42.3**	**39.9**	**44.8**
FEMALES			
18-34	**29.6**	25.2	34.3
35-44	**39.8**	36.0	43.8
45-54	**54.3**	50.5	58.0
55-64	**59.8**	56.0	63.6
65+	**58.9**	55.5	62.1
All females	**45.3**	**43.3**	**47.2**
PERSONS			
18-34	**31.0**	27.5	34.7
35-44	**41.6**	38.4	44.9
45-54	**49.8**	46.9	52.8
55-64	**53.8**	50.7	56.8
65+	**55.1**	52.5	57.7
All persons	**43.9**	**42.3**	**45.4**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below the Victorian estimate.

A significantly higher proportion of males who resided in the rural regions (48.6 per cent) responded 'yes' to the question on joint pain, stiffness or swelling compared to males who resided in the metropolitan regions (40.4 per cent) and all Victorian males (42.3 per cent) (Table 3.14). By contrast there was no difference between females, regardless of where they resided, or between the sexes, with the exception of those who resided in Barwon-South Western Region where a lower proportion responded 'yes' (39.4 per cent) compared to all Victorian females (45.3 per cent) and males who resided in Barwon-South Western (50.4 per cent).

Table 3.14 Had pain, aching, stiffness or swelling in or around a joint in past 12 months, by Department of Health region and sex, 2010

		95% CI	
MALES	**%**	LL	UL
Eastern Metropolitan	**48.3**	42.4	54.3
North & West Metropolitan	**37.4**	32.9	42.2
Southern Metropolitan	**38.8**	33.5	44.3
All metropolitan males	**40.4**	37.3	43.5
Barwon-South Western	**50.4**	44.0	56.8
Gippsland	**47.9**	41.7	54.1
Grampians	**47.0**	40.6	53.4
Hume	**47.8**	41.3	54.4
Loddon Mallee	**44.8**	38.7	51.1
All rural males	**48.6**	45.4	51.7
All Victorian males	**42.3**	**39.9**	**44.8**
FEMALES			
Eastern Metropolitan	**47.8**	43.2	52.5
North & West Metropolitan	**45.8**	42.0	49.8
Southern Metropolitan	**43.7**	39.3	48.2
All metropolitan females	**45.5**	43.0	48.0
Barwon-South Western	**39.4**	35.7	43.3
Gippsland	**43.9**	39.2	48.7
Grampians	**43.5**	38.6	48.5
Hume	**48.8**	43.5	54.1
Loddon Mallee	**47.5**	43.1	51.9
All rural females	**44.7**	42.6	46.9
All Victorian females	**45.3**	**43.3**	**47.2**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.

Survey respondents who responded 'yes' to the question about joint pain, stiffness or swelling were subsequently asked to indicate whether the site of the problem was in the hip and/or knee (table 3.15). One-third of those (32.3 per cent) reported having had a knee problem, just over one-tenth (10.3 per cent) reported having had a hip problem, and 8.0 per cent reported both hip and knee problems.

The proportion of Victorians reporting problems with their hip increased with increasing age, with the highest proportion being aged 65 years and over (16.3 per cent). By contrast, the proportion reporting knee problems did not vary with age.

Table 3.15 Had hip or knee problem[a], by age group and sex, 2010

	Neither hip or knee			Hip only			Knee only			Both hip and knee		
		95% CI			95% CI			95% CI			95% CI	
Age group (years)	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
MALES												
18-34	**55.8**	45.6	65.5	**	**	**	**35.5**	26.5	45.7	**5.4***	2.3	12.3
35-44	**48.1**	40.1	56.1	**6.4***	3.5	11.5	**39.8**	32.3	47.9	**4.9***	2.6	9.3
45-54	**50.6**	43.8	57.3	**5.4***	3.1	9.1	**35.1**	28.9	41.8	**9.0**	5.8	13.6
55-64	**44.9**	38.2	51.8	**9.4**	6.2	14.1	**38.3**	31.8	45.2	**6.1***	3.7	9.9
65+	**39.7**	34.1	45.5	**17.1**	13.0	22.2	**30.9**	25.8	36.6	**11.2**	8.0	15.3
All males	**49.3**	**45.3**	**53.3**	**7.7**	**6.1**	**9.6**	**35.9**	**32.1**	**39.9**	**6.7**	**5.2**	**8.6**
FEMALES												
18-34	**52.4**	43.3	61.5	**13.3**	8.1	21.1	**29.8**	22.1	38.9	**4.2***	1.9	9.1
35-44	**47.4**	41.2	53.7	**12.5**	9.1	17.1	**29.4**	24.0	35.4	**10.7**	7.3	15.5
45-54	**49.9**	44.8	55.1	**13.1**	10.0	17.1	**27.1**	22.7	31.9	**9.8**	7.1	13.3
55-64	**48.5**	43.5	53.5	**10.4**	7.9	13.6	**28.3**	24.0	33.0	**12.8**	9.9	16.5
65+	**41.5**	37.3	45.9	**15.8**	12.8	19.3	**29.5**	25.6	33.6	**12.8**	10.2	16.1
All females	**48.5**	**45.1**	**51.9**	**13.2**	**11.0**	**15.8**	**29.1**	**26.0**	**32.3**	**9.1**	**7.7**	**10.8**
PERSONS												
18-34	**54.2**	47.3	61.0	**8.0**	5.1	12.4	**32.8**	26.7	39.7	**4.9***	2.7	8.7
35-44	**47.7**	42.6	52.9	**9.4**	6.9	12.5	**34.7**	30.0	39.8	**7.7**	5.5	10.8
45-54	**50.2**	46.1	54.4	**9.7**	7.5	12.3	**30.7**	26.9	34.7	**9.4**	7.3	12.1
55-64	**46.9**	42.9	51.0	**10.0**	7.9	12.6	**32.6**	28.8	36.6	**9.9**	7.9	12.5
65+	**40.8**	37.4	44.3	**16.3**	13.8	19.2	**30.1**	26.9	33.4	**12.2**	10.1	14.6
All persons	**49.0**	**46.4**	**51.7**	**10.3**	**9.0**	**11.9**	**32.3**	**29.9**	**34.9**	**8.0**	**6.9**	**9.3**

[a] The denominator is those who answered 'yes' to the question "In the past 12 months, have you had pain, aching, stiffness, or swelling in, or around, a joint?"
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below the Victorian estimate.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE greater than 50 per cent and is not reported as it is unreliable for general use.

The proportions of males and females who reported a problem with their hip and/or knee did not differ between those who resided in the rural compared to the metropolitan regions (table 3.16). The exception was the proportion of females from Barwon South-Western Region (5.0 per cent) who reported a lower prevalence of both hip and knee problems compared to all Victorian females (9.1 per cent).

Table 3.16 Had hip or knee problem, by Department of Health region and sex, 2010

	Neither hip or knee			Hip only			Knee only			Both hip and knee		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**50.5**	42.6	58.3	**6.5***	3.9	10.5	**38.5**	31.0	46.5	**3.9***	2.1	6.9
North & West Metropolitan	**47.6**	39.0	56.3	**10.2***	5.6	17.9	**32.1**	24.2	41.2	**6.3***	3.6	10.9
Southern Metropolitan	**48.4**	39.7	57.2	**5.9**	3.6	9.5	**37.0**	29.1	45.6	**7.8***	4.1	14.6
All metropolitan males	**49.6**	44.3	54.9	**7.3**	5.3	10.1	**36.3**	31.2	41.6	**6.2**	4.3	8.9
Barwon-South Western	**47.3**	39.6	55.1	**7.6***	4.4	12.6	**37.1**	29.4	45.5	**7.8***	4.6	12.8
Gippsland	**48.9**	41.7	56.1	**9.9**	6.5	14.8	**28.3**	22.0	35.7	**9.4**	6.3	13.7
Grampians	**43.7**	33.9	54.0	**13.5***	7.2	23.8	**33.7**	26.2	42.0	**5.7**	3.5	9.0
Hume	**51.5**	43.3	59.5	**7.4***	4.4	12.3	**32.2**	24.5	41.0	**8.7***	5.2	14.2
Loddon Mallee	**45.3**	37.3	53.5	**11.2***	5.8	20.4	**34.2**	24.9	44.9	**5.9***	3.4	10.0
All rural males	**48.7**	44.3	53.1	**8.6**	6.8	10.8	**34.9**	30.7	39.3	**7.7**	6.0	9.7
All Victorian males	**49.3**	**45.3**	**53.3**	**7.7**	**6.1**	**9.6**	**35.9**	**32.1**	**39.9**	**6.7**	**5.2**	**8.6**
FEMALES												
Eastern Metropolitan	**48.8**	41.6	56.0	**12.6**	8.4	18.5	**29.3**	23.5	35.7	**9.3**	6.1	14.0
North & West Metropolitan	**53.5**	46.3	60.7	**12.5**	8.2	18.6	**25.3**	19.5	32.3	**8.6**	6.3	11.8
Southern Metropolitan	**44.4**	37.6	51.5	**15.0**	10.4	21.1	**30.6**	24.4	37.6	**9.8**	6.6	14.3
All metropolitan females	**49.2**	44.9	53.4	**13.1**	10.4	16.3	**28.4**	24.7	32.4	**9.3**	7.5	11.5
Barwon-South Western	**45.7**	39.0	52.5	**10.9**	8.0	14.8	**29.1**	23.1	35.9	**5.0**	3.4	7.1
Gippsland	**49.2**	41.2	57.2	**14.7**	11.5	18.6	**28.8**	21.6	37.2	**7.3**	5.2	10.4
Grampians	**38.9**	32.3	45.9	**15.2**	10.6	21.4	**33.1**	26.4	40.5	**9.0**	6.3	12.6
Hume	**50.9**	45.0	56.7	**11.9**	8.3	16.7	**27.0**	21.8	32.9	**10.1**	7.3	13.7
Loddon Mallee	**44.7**	37.5	52.1	**10.7**	7.6	14.7	**33.7**	27.2	41.0	**10.3**	6.8	15.3
All rural females	**46.1**	41.9	50.3	**12.8**	10.8	15.1	**32.3**	28.4	36.6	**8.5**	7.0	10.2
All Victorian females	**48.5**	**45.1**	**51.9**	**13.2**	**11.0**	**15.8**	**29.1**	**26.0**	**32.3**	**9.1**	**7.7**	**10.8**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

All survey respondents were asked if they had ever had a joint replacement and 3.5 per cent responded 'yes' (table 3.17). The highest proportion of males and females who responded 'yes' were aged 65 years and over (15.5 and 13.7 per cent, respectively). There was no difference between the sexes.

Table 3.17 Prevalence of joint replacement, by age group and sex, 2010

		95% CI	
Age group (years)	%	LL	UL
MALES			
18-34	**	**	**
35-44	**	**	**
45-54	**0.7***	0.3	1.7
55-64	**2.5***	1.5	4.2
65+	**15.5**	12.7	18.8
All males	**3.7**	**3.0**	**4.5**
FEMALES			
18-34	**	**	**
35-44	**	**	**
45-54	**1.5***	0.8	2.7
55-64	**4.1**	2.8	5.9
65+	**13.7**	11.6	16.2
All females	**3.4**	**2.9**	**3.9**
PERSONS			
18-34	**	**	**
35-44	**0.7***	0.3	1.6
45-54	**1.1***	0.7	1.8
55-64	**3.3**	2.5	4.5
65+	**14.5**	12.8	16.5
All persons	**3.5**	**3.1**	**4.0**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below the Victorian estimate.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has an RSE greater than 50 per cent and is not reported as it is unreliable for general use.

There were no differences in the prevalence of joint replacement in males or females who resided in the rural compared to the metropolitan regions (table 3.18). The only exception was that a greater proportion of females from Loddon Mallee Region (5.2 per cent) had had a joint replacement compared to all Victorian females (3.4 per cent).

Table 3.18 Prevalence of joint replacement, by Department of Health region and sex, 2010

		95% CI	
MALES	**%**	LL	UL
Eastern Metropolitan	**3.4***	1.9	5.8
North & West Metropolitan	**3.0**	2.0	4.5
Southern Metropolitan	**4.1**	2.7	6.4
All metropolitan males	**3.4**	2.6	4.4
Barwon-South Western	**3.4**	2.2	5.0
Gippsland	**3.4**	2.2	5.2
Grampians	**3.9**	2.6	5.8
Hume	**4.3**	3.0	6.3
Loddon Mallee	**5.8***	3.5	9.5
All rural males	**4.2**	3.3	5.2
All Victorian males	**3.7**	**3.0**	**4.5**
FEMALES			
Eastern Metropolitan	**2.8**	1.9	4.0
North & West Metropolitan	**3.7**	2.7	5.2
Southern Metropolitan	**2.6**	1.8	3.8
All metropolitan females	**3.1**	2.6	3.9
Barwon-South Western	**3.5**	2.5	4.8
Gippsland	**2.7**	1.7	4.0
Grampians	**3.8**	2.4	5.9
Hume	**4.5***	2.4	8.1
Loddon Mallee	**5.2**	4.0	6.8
All rural females	**4.0**	3.3	4.8
All Victorian females	**3.4**	**2.9**	**3.9**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

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4 Body weight status

The body mass index (BMI) provides a measure of weight in relation to height and can be used to estimate levels of unhealthy weight in a population. It is calculated as weight in kilograms divided by height in metres squared:

BMI = weight (kg)/height squared (m^2)

The World Health Organisation classifies adult body weight status based on the following BMI scores:

BMI score	Weight category
<18.5	Underweight
18.5–24.9	Normal
25.0–29.9	Overweight
30.0–34.9	Obese class I
35.0–39.9	Obese class II
≥40.0	Obese class III

(WHO 2000)

Survey respondents were asked to report their height and weight and the formula described above was used to calculate their BMI.

It is important to note that studies comparing self-reported height and weight with actual physical measurements have shown that people tend to underestimate their weight and overestimate their height, resulting in an underestimation of their BMI. Therefore, estimates of the prevalence of overweight and obesity in a population that are based on self-reported data are likely to be an underestimate. A further cautionary note is that BMI cannot distinguish between body fat and muscle. Therefore, an individual who is very muscular with low body fat could have a high BMI estimate and be classified as obese.

Self-reported data still have a place in health monitoring because such data are relatively inexpensive and easy to collect, and have been shown to be useful in monitoring trends over time.

Survey results

- Half (50.1 per cent) of all persons aged 18 years and over were overweight or obese (33.2 per cent were overweight and 16.9 per cent were obese).
- Males were significantly more likely to be both overweight (41.0 per cent) or obese (18.5 per cent) compared with females (25.7 and 15.2 per cent, respectively).
- Whilst the prevalence of overweight in males and females did not significantly change between 2003 and 2010, the prevalence of obesity in males and females increased over this period.
- The prevalence of overweight increased with age and was greatest in persons aged 55 years and over, while the prevalence of obesity also increased with age but peaked in persons aged 55 to 64 years.
- The prevalence of overweight and obesity was lowest in persons aged 18-24 years.
- More than one in 10 (12.3 per cent) persons were classified as Class I obese (BMI 30–34.9 kg/m^2), 3.2 per cent were classified as Class II obese (BMI 35–39.9 kg/m^2), and 1.4 per cent were classified as Class III obese (BMI ≥40.0 kg/m^2).
- Females from the rural regions (20.3 per cent) had a higher prevalence of obesity compared with females from the metropolitan regions (13.6 per cent).

- There was a higher prevalence of obesity in females who resided in all the rural Department of Health regions, with the exception of Barwon-South Western Region, compared with metropolitan or all Victorian females.

Body weight status

Table 4.1 and Figure 4.1 show body weight status by sex, as determined by self-reported height and weight and subsequent calculation of corresponding body mass index (BMI).

Half (50.1 per cent) of all persons aged 18 years and over were overweight or obese (33.2 per cent were overweight and 16.9 per cent were obese). More than half (59.5 per cent) of all males in Victoria were overweight or obese, compared with 41.0 per cent of females. A higher proportion of males were overweight (41.0 per cent), compared with females (25.7 per cent), similarly there was a higher proportion of obese males than females (18.5 per cent and 15.2 per cent, respectively).

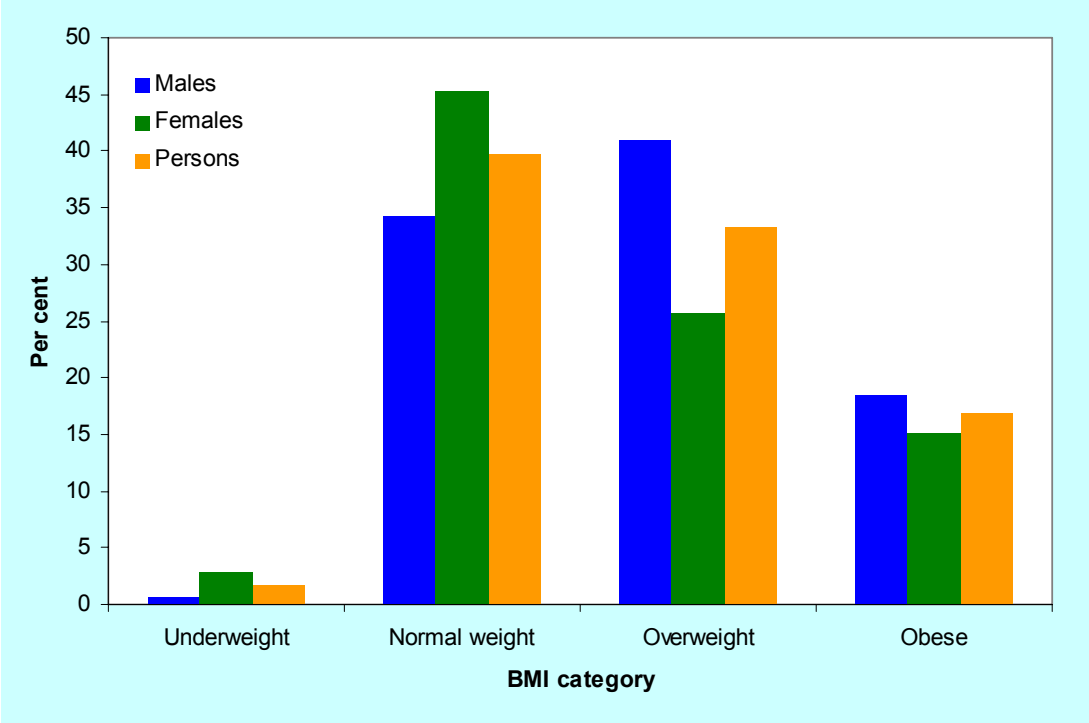
Table 4.1 Body weight status[(a)], by sex, 2010

	Underweight (<18.5 kg/m^2)			Normal weight (18.5-24.9 kg/m^2)			Overweight (25.0-29.9 kg/m^2)			Obese (≥30.0 kg/m^2)		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL		LL	UL
Males	**0.6***	0.3	1.0	**34.2**	31.8	36.7	**41.0**	38.6	43.4	**18.5**	16.7	20.5
Females	**2.8**	2.2	3.7	**45.3**	43.3	47.3	**25.7**	24.1	27.5	**15.2**	14.0	16.5
Persons	**1.7**	1.4	2.2	**39.8**	38.2	41.3	**33.2**	31.8	34.7	**16.9**	15.8	18.0

[a]

Determined by calculation of body mass index (BMI) from self-reported height and weight.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data were age-standardised to the 2006 Victorian population.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Figure 4.1: Self-reported body weight status[(a)], by sex, 2010



[a] Determined by calculation of body mass index (BMI) from self-reported height and weight.
Data were age-standardised to the 2006 Victorian population.

Trend over time

Table 4.2 shows that the prevalence of underweight in females and all persons, but not males, declined between 2003 and 2010. The prevalence of normal weight in males, females and all persons, significantly declined between 2003 and 2010. By contrast, the prevalence of overweight in males, females and all persons remained constant between 2003 and 2010. However, the prevalence of obesity in males, females and all persons significantly increased between 2003 and 2010.

Table 4.2: Body weight status[(a)], 2003-2010

	2003			2004			2005			2006			2007			2008			2009			2010		
		95% CI			95% CI			95% CI			95% CI			95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
Underweight	**1.7**	1.2	2.6	**1.6**	1.1	2.5	**1.6**	1.0	2.3	**0.7***	0.4	1.1	**1.2***	0.7	2.0	**0.9**	0.7	1.2	**1.4**	0.9	2.1	**0.6***	0.3	1.0
Normal	**42.3**	40.1	44.6	**40.3**	38.0	42.6	**41.2**	38.8	43.6	**39.8**	37.4	42.3	**39.3**	36.8	41.8	**38.6**	37.3	40.0	**35.6**	33.4	37.8	**34.2**	31.8	36.7
Overweight	**39.1**	36.9	41.4	**41.5**	39.1	43.8	**39.2**	36.9	41.5	**40.0**	37.7	42.5	**41.0**	38.5	43.4	**39.9**	38.7	41.2	**39.7**	37.5	42.0	**41.0**	38.6	43.4
Obese	**14.3**	12.8	16.0	**14.1**	12.6	15.7	**15.2**	13.6	16.9	**16.1**	14.5	17.9	**15.7**	14.1	17.4	**17.3**	16.3	18.2	**18.3**	16.7	20.2	**18.5**	16.7	20.5
FEMALES																								
Underweight	**4.9**	4.1	5.9	**5.3**	4.4	6.3	**3.6**	2.9	4.6	**3.1**	2.5	3.9	**2.9**	2.2	3.7	**3.6**	3.1	4.1	**3.4**	2.7	4.3	**2.8**	2.2	3.7
Normal	**52.0**	50.1	54.0	**49.2**	47.3	51.1	**48.7**	46.7	50.7	**50.2**	48.2	52.1	**48.0**	45.9	50.0	**48.1**	47.1	49.2	**48.4**	46.6	50.3	**45.3**	43.3	47.3
Overweight	**24.0**	22.4	25.6	**23.0**	21.5	24.6	**25.6**	24.0	27.3	**24.6**	23.0	26.2	**25.0**	23.3	26.7	**24.2**	23.4	25.1	**22.3**	20.9	23.7	**25.7**	24.1	27.5
Obese	**13.6**	12.4	15.0	**14.7**	13.4	16.1	**15.9**	14.6	17.4	**14.5**	13.3	15.8	**15.1**	13.8	16.4	**16.1**	15.4	16.8	**16.0**	14.8	17.4	**15.2**	14.0	16.5
PERSONS																								
Underweight	**3.4**	2.9	4.0	**3.4**	2.9	4.1	**2.6**	2.1	3.2	**1.9**	1.6	2.3	**2.0**	1.6	2.6	**2.2**	2.0	2.5	**2.4**	1.9	2.9	**1.7**	1.4	2.2
Normal	**47.3**	45.8	48.8	**44.8**	43.3	46.3	**45.0**	43.4	46.5	**45.1**	43.5	46.7	**43.7**	42.1	45.3	**43.5**	42.6	44.3	**42.1**	40.6	43.6	**39.8**	38.2	41.3
Overweight	**31.2**	29.9	32.7	**32.0**	30.6	33.4	**32.2**	30.8	33.6	**32.1**	30.6	33.6	**32.8**	31.3	34.3	**31.9**	31.1	32.7	**30.8**	29.5	32.2	**33.2**	31.8	34.7
Obese	**14.0**	13.0	15.0	**14.4**	13.4	15.5	**15.6**	14.5	16.8	**15.3**	14.3	16.4	**15.4**	14.4	16.5	**16.7**	16.1	17.3	**17.2**	16.1	18.3	**16.9**	15.8	18.0

[a] Determined by calculation of body mass index (BMI) from self-reported height and weight.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data were age-standardised to the 2006 Victorian population.
Ordinary least squares regression was used to test for trends over time.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution

Table 4.3 shows body weight status by age and sex. The prevalence of overweight increased with age and was greatest in persons aged 55 years and over, while the prevalence of obesity also increased with age but peaked in persons aged 55 to 64 years. By contrast, the prevalence of overweight and obesity was lowest in persons aged 18-24 years (Figures 4.2 and 4.3).

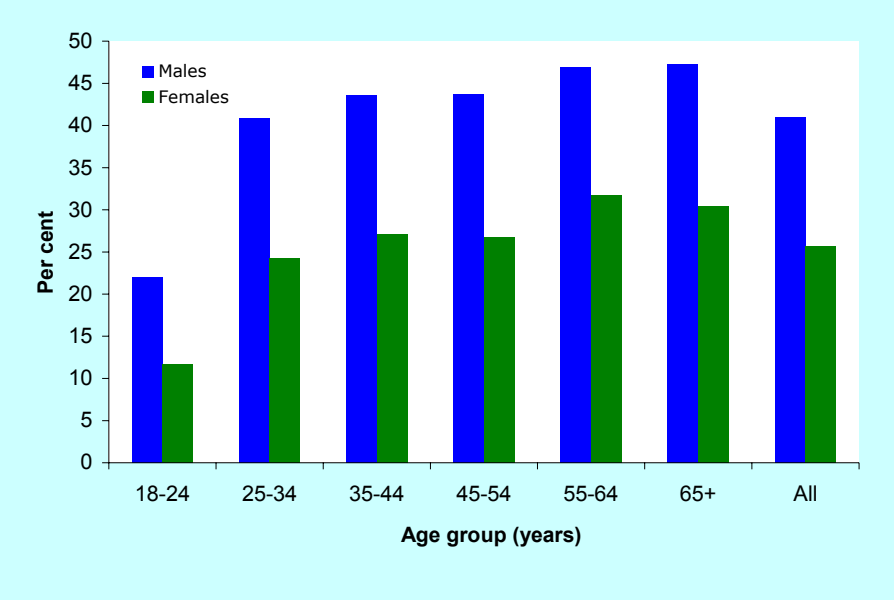
Table 4.3: Body weight status[(a)], by age group and sex, 2010

Age group (years)	Underweight (<18.5 kg/m^2)	95% CI		Normal weight (18.5-24.9 kg/m^2)	95% CI		Overweight (25.0-29.9 kg/m^2)	95% CI		Obese (≥30.0 kg/m^2)	95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**0.0**	0.0	0.0	**57.7**	47.6	67.2	**22.0**	14.8	31.4	**8.4***	4.3	15.8
25-34	**0.0**	0.0	0.0	**37.2**	30.3	44.6	**40.9**	33.8	48.3	**19.1**	13.9	25.6
35-44	**			**32.3**	27.5	37.5	**43.6**	38.4	49.0	**18.4**	14.6	22.9
45-54	**			**27.2**	23.4	31.5	**43.8**	39.3	48.4	**23.4**	19.7	27.5
55-64	**			**25.7**	21.7	30.2	**46.9**	42.1	51.7	**22.0**	18.2	26.2
65+	**1.4***	0.6	3.1	**26.5**	23.0	30.4	**47.3**	43.1	51.4	**18.2**	15.2	21.7
All males	**0.6***	**0.3**	**1.0**	**34.2**	**31.8**	**36.7**	**41.0**	**38.6**	**43.4**	**18.5**	**16.7**	**20.5**
FEMALES												
18-24	**5.2***	2.5	10.7	**68.7**	60.5	75.8	**11.7**	7.1	18.7	**5.5***	3.3	9.0
25-34	**3.0***	1.5	5.7	**48.3**	42.4	54.2	**24.2**	19.4	29.7	**12.3**	9.0	16.7
35-44	**2.0***	1.2	3.5	**45.4**	41.4	49.4	**27.1**	23.7	30.7	**15.7**	13.0	18.8
45-54	**2.4***	1.4	4.1	**45.2**	41.4	49.0	**26.7**	23.5	30.2	**16.3**	13.8	19.2
55-64	**3.1**	2.0	4.9	**34.7**	31.1	38.5	**31.7**	28.2	35.5	**20.8**	17.9	24.1
65+	**2.0**	1.3	3.2	**33.4**	30.3	36.6	**30.4**	27.4	33.6	**19.1**	16.6	21.9
All females	**2.8**	**2.2**	**3.7**	**45.3**	**43.3**	**47.3**	**25.7**	**24.1**	**27.5**	**15.2**	**14.0**	**16.5**
PERSONS												
18-24	**2.5***	1.2	5.3	**63.1**	56.5	69.2	**17.0**	12.4	22.7	**7.0**	4.4	10.9
25-34	**1.5***	0.8	2.9	**42.7**	38.1	47.5	**32.6**	28.2	37.2	**15.7**	12.5	19.6
35-44	**1.4***	0.8	2.3	**38.9**	35.7	42.2	**35.3**	32.1	38.5	**17.0**	14.6	19.7
45-54	**1.5***	0.9	2.5	**36.3**	33.5	39.2	**35.1**	32.3	38.1	**19.8**	17.5	22.3
55-64	**1.9**	1.2	2.8	**30.3**	27.5	33.2	**39.2**	36.2	42.2	**21.4**	19.0	24.0
65+	**1.7**	1.2	2.6	**30.3**	28.0	32.8	**38.0**	35.4	40.6	**18.7**	16.7	20.8
All persons	**1.7**	**1.4**	**2.2**	**39.8**	**38.2**	**41.3**	**33.2**	**31.8**	**34.7**	**16.9**	**15.8**	**18.0**

[a] Determined by calculation of body mass index (BMI) from self-reported height and weight.

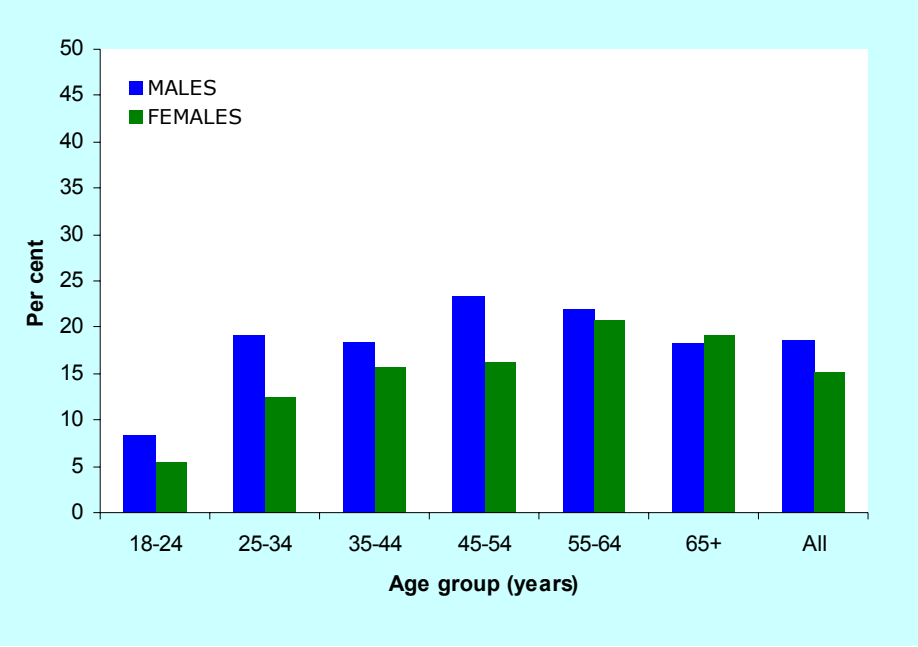
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for totals, which represent the total for Victoria and have been age standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above Victoria / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
**Estimate has a relative standard error of greater than 50 per cent and is not reported as it is unreliable for general use.

Figure 4.2 Prevalence of overweight (BMI 25.0-29.9 kg/m^2), by sex and age group, 2010



Data are crude estimates, except for 'All' - which represent the summary estimates for all ages and were age-standardised to the 2006 Victorian population.

Figure 4.3 Prevalence of obesity (BMI ≥ 30 kg/m^2), by sex and age group, 2010



Data are crude estimates, except for 'All' - which represent the summary estimates for all ages and were age-standardised to the 2006 Victorian population.

The World Health Organisation has categorised obesity into three groups, ranging from moderate (Class I: BMI 30–34.9 kg/m^2), to severe (Class II: BMI 35–39.9 kg/m^2), through to very severe (Class III: BMI ≥40.0 kg/m^2). Table 4.4 shows the prevalence of obesity in persons, by class of obesity, sex and age group.

Table 4.4: Prevalence of obesity, by class[(a)], age group and sex, 2010

Age group (years)	Obese class I (30.0-34.9)			Obese class II (35.0-39.9)			Obese class III (≥40.0)		
		95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL
18-24	6.8*	3.0	14.4	**			**		
25-34	14.7	10.2	20.7	**			**		
35-44	11.9	8.8	15.7	5.0	3.1	8.0	1.5*	0.6	3.7
45-54	18.8	15.4	22.7	3.0*	1.8	4.9	1.6*	0.8	3.1
55-64	16.8	13.6	20.7	4.4	2.8	6.9	**	0.2	2.5
65+	13.8	11.2	17.0	3.1	1.9	4.9	1.3*	0.6	2.7
All males	14.0	12.4	15.8	3.1	2.4	3.9	1.5	1.0	2.3
FEMALES									
18-24	3.2*	1.6	6.3	1.6*	0.7	4.0	**		
25-34	8.7	5.9	12.6	2.3*	1.1	4.7	**		
35-44	11.6	9.3	14.5	3.4	2.2	5.0	0.7*	0.3	1.3
45-54	10.9	8.9	13.4	3.3	2.2	4.7	2.1*	1.3	3.5
55-64	14.8	12.3	17.8	4.4	3.1	6.1	1.6*	1.0	2.8
65+	13.4	11.2	15.8	4.8	3.5	6.6	0.9*	0.5	1.5
All females	10.6	9.6	11.8	3.3	2.8	4.0	1.3	0.9	1.8
PERSONS									
18-24	5.0*	2.8	8.9	1.3*	0.6	2.7	0.7*	0.3	1.7
25-34	11.7	8.9	15.2	2.3*	1.2	4.2	1.7*	0.8	3.7
35-44	11.7	9.8	14.1	4.2	3.0	5.8	1.1*	0.6	2.1
45-54	14.8	12.8	17.1	3.1	2.3	4.3	1.8	1.2	2.8
55-64	15.8	13.7	18.2	4.4	3.3	5.8	1.2*	0.7	2.0
65+	13.6	11.9	15.5	4.0	3.1	5.2	1.1	0.7	1.7
All persons	12.3	11.3	13.3	3.2	2.8	3.7	1.4	1.0	1.8

(a) Determined by calculation of Body Mass Index (BMI).
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Estimates for all males, females and persons have been age standardised to the 2006 Victorian population, all others are crude rates.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above Victoria / below Victoria.
*Estimate has a relative standard error of between 25 and 50 per cent and should be interpreted with caution.
**Estimate has a relative standard error of greater than 50 per cent and is not reported as it is unreliable for general use.

Class I obesity was the most common class of obesity, where 12.3 per cent of all persons surveyed had a BMI of 30.0–34.9 kg/m^2. Only 3.2 per cent of persons were classified as Class II obese (BMI of 35.0–39.9 kg/m^2) while 1.4 per cent were classified as Class III obese (BMI of ≥40.0). There were no differences in the prevalence of Class II or III obesity between the sexes, however, there was a higher prevalence of Class I obesity in males (14.0 per cent) compared with females (10.6 per cent).

The prevalence of Class I obesity increased with age, peaking at 15.8 per cent in persons aged 55-64 years compared with all persons (12.3 per cent). The prevalence of Class II obesity did not significantly vary with age, with the exception of those aged 18-24 years who had a lower prevalence (1.3 per cent) compared with all persons (3.2 per cent). The prevalence of Class III obesity did not vary with age, although the relative standard errors for most age groups were between 25 and 50 per cent and hence the data must be interpreted with caution.

Body weight status, by Department of Health region

Table 4.5 shows body weight status by sex and Department of Health region. There were no regional differences in the body weight status of males, with the exception of those who resided in Gippsland Region who had a significantly lower prevalence of normal weight compared with all Victorian males. By contrast, females who resided in the rural regions overall (20.3 per cent) had a higher prevalence of obesity compared with females who resided in the metropolitan regions (13.6 per cent) or all Victorian females (15.2 per cent). Specifically, females who resided in Gippsland, Grampians, Hume, and Loddon Mallee Regions had a higher prevalence of obesity compared with metropolitan or all Victorian females.

The only other significant observation was that there was a higher prevalence of underweight in females who resided in Grampians Region (6.9 per cent) compared with metropolitan (2.9 per cent) or all Victorian females (2.8 per cent).

Table 4.5: Body weight status[(a)], by Department of Health region, 2010

	Underweight (<18.5 kg/m^2)			**Normal weight** (18.5-24.9 kg/m^2)			**Overweight** (25.0-29.9 kg/m^2)			**Obese** (≥30.0 kg/m^2)		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**	**	**	**37.3**	31.7	43.3	**42.1**	36.8	47.5	**15.0**	11.0	20.0
North & West Metropolitan	**1.0***	0.4	2.3	**33.5**	28.9	38.4	**41.7**	36.8	46.7	**17.9**	14.7	21.7
Southern Metropolitan	**	**	**	**33.3**	28.2	38.8	**39.0**	33.8	44.4	**21.3**	17.1	26.1
All metropolitan males	**0.7***	**0.4**	**1.3**	**35.1**	**32.1**	**38.2**	**40.2**	**37.3**	**43.3**	**18.4**	**16.1**	**20.9**
Barwon-South Western	**	**	**	**35.1**	29.3	41.5	**39.0**	33.2	45.2	**21.5**	17.6	26.1
Gippsland	**	**	**	**24.2**	18.5	30.9	**45.5**	38.5	52.6	**20.3**	15.5	26.2
Grampians	**	**	**	**28.5**	22.9	34.8	**42.5**	36.2	49.1	**18.2**	14.2	23.1
Hume	**0.0**	0.0	0.0	**32.5**	26.3	39.5	**47.4**	40.7	54.2	**17.6**	13.1	23.4
Loddon Mallee	**	**	**	**33.3**	27.6	39.5	**44.3**	38.1	50.8	**14.6**	11.1	19.1
All rural males	**0.2***	**0.1**	**0.5**	**31.3**	**28.4**	**34.3**	**43.8**	**40.7**	**46.8**	**18.5**	**16.4**	**20.7**
All Victorian males	**0.6***	**0.3**	**1.0**	**34.2**	**31.8**	**36.7**	**41.0**	**38.6**	**43.4**	**18.5**	**16.7**	**20.5**
FEMALES												
Eastern Metropolitan	**1.8***	0.9	3.7	**52.1**	47.6	56.6	**22.8**	19.4	26.7	**13.2**	10.8	16.2
North & West Metropolitan	**2.9***	1.7	4.7	**45.4**	41.6	49.3	**28.0**	24.5	31.7	**14.2**	11.8	17.1
Southern Metropolitan	**4.2***	2.5	6.8	**47.2**	42.8	51.7	**24.5**	20.9	28.4	**12.8**	10.5	15.5
All metropolitan females	**2.9**	**2.1**	**4.0**	**47.8**	**45.3**	**50.2**	**25.5**	**23.4**	**27.7**	**13.6**	**12.1**	**15.2**
Barwon-South Western	**2.5***	1.5	4.2	**39.3**	34.8	43.9	**27.0**	23.1	31.4	**18.7**	14.8	23.4
Gippsland	**3.3***	1.6	6.4	**35.3**	30.3	40.7	**28.2**	23.7	33.2	**21.0**	17.1	25.5
Grampians	**6.9**	4.8	9.8	**36.5**	31.5	41.8	**21.2**	17.5	25.5	**21.2**	17.2	25.7
Hume	**2.3***	1.3	4.2	**37.1**	31.9	42.6	**28.4**	23.9	33.3	**21.2**	16.9	26.2
Loddon Mallee	**1.5***	0.7	3.4	**36.8**	32.4	41.4	**26.9**	23.2	31.0	**20.3**	16.9	24.2
All rural females	**2.7**	**2.0**	**3.6**	**37.6**	**35.3**	**39.9**	**26.5**	**24.6**	**28.5**	**20.3**	**18.4**	**22.3**
All Victorian females	**2.8**	**2.2**	**3.7**	**45.3**	**43.3**	**47.3**	**25.7**	**24.1**	**27.5**	**15.2**	**14.0**	**16.5**

[a] Determined by calculation of body mass index (BMI) from self-reported height and weight.
Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above Victoria / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
**Estimate has a relative standard error of greater than 50 per cent and is not reported as it is unreliable for general use.

Body weight status, by selected risk factors

Table 4.6 shows body weight status in males and females, by selected risk factors. There were no significant differences by selected risk factors in overweight males or females, with the exception that overweight males were less likely to report very high levels of psychological distress. By contrast, males and females who were obese were more likely to have diabetes and rate their health as fair or poor. Obese females were also more likely to have high levels of psychological distress.

Males of normal weight were more likely to have met the guidelines for vegetable consumption and/or to rate their health as excellent or very good, and were less likely to have diabetes.

Females of normal weight were less likely to have very high levels of psychological distress, diabetes, and/or more likely to rate their health as excellent or very good.

Table 4.6: Body weight status[(a)], by selected risk factors and sex, 2010

	Underweight (<18.5 kg/m²)			Normal weight (18.5-24.9 kg/m²)			Overweight (25.0-29.9 kg/m²)			Obese (≥30.0 kg/m²)		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL		LL	UL
All males	**0.6***	**0.3**	**1.0**	**34.2**	**31.8**	**36.7**	**41.0**	**38.6**	**43.4**	**18.5**	**16.7**	**20.5**
Psychological distress[b]												
Low (< 16)	**0.6***	0.3	1.1	**35.3**	32.4	38.3	**41.8**	39.0	44.6	**17.2**	15.1	19.5
Moderate (16 to 21)	**	**	**	**29.0**	24.1	34.4	**41.8**	36.4	47.3	**21.7**	17.6	26.6
High (22 to 29)	**	**	**	**39.2**	30.9	48.3	**30.5**	23.1	39.2	**22.3**	15.6	30.7
Very high (>= 30)	**	**	**	**35.8**	27.6	45.0	**19.9**	12.6	29.9	**24.4**	15.3	36.6
Physical activity[c]												
Sedentary	**	**	**	**29.5**	20.8	39.9	**40.3**	29.7	51.9	**21.1**	14.5	29.7
Insufficient time & sessions	**	**	**	**31.1**	26.2	36.5	**41.8**	37.1	46.7	**20.0**	16.3	24.4
Sufficient time & sessions	**0.5***	0.2	1.1	**36.7**	33.6	39.8	**40.9**	37.9	43.9	**17.2**	15.0	19.6
Alcohol use[d]												
Abstainer	**	**	**	**38.3**	31.8	45.3	**34.8**	29.0	41.0	**17.1**	12.5	23.1
Low risk	**0.7***	0.4	1.2	**34.3**	31.7	37.0	**42.2**	39.6	44.9	**18.4**	16.4	20.5
Risky or high risk	**0.0**	0.0	0.0	**40.4**	31.5	49.9	**32.6**	23.4	43.4	**20.0**	12.6	30.3
Met fruit / vegetable guidelines[e]												
Both guidelines	**	**	**	**36.1**	26.0	47.5	**36.3**	26.2	47.7	**12.0**	7.9	17.9
Vegetable guidelines only	**	**	**	**47.7**	38.8	56.7	**37.3**	28.8	46.7	**11.8**	8.0	16.9
Fruit guidelines only	**	**	**	**34.3**	30.7	38.1	**42.8**	39.2	46.5	**18.2**	15.5	21.3
Neither	**0.8***	0.4	1.6	**33.8**	30.6	37.2	**39.5**	36.4	42.7	**19.0**	16.6	21.7
Diabetes (excluding GDM)												
No	**0.6***	0.3	1.1	**34.7**	32.3	37.2	**41.6**	39.2	44.1	**17.4**	15.6	19.4
Yes	**	**	**	**12.9**	8.2	19.7	**33.0**	27.6	38.9	**27.9**	21.4	35.6
Smoking status												
Current smoker	**	**	**	**36.9**	31.7	42.4	**37.5**	32.4	42.8	**13.9**	10.6	18.1
Ex-smoker	**	**	**	**28.4**	23.1	34.5	**44.4**	38.8	50.1	**20.5**	17.3	24.0
Non-smoker	**0.7***	0.3	1.5	**35.3**	32.0	38.8	**41.5**	38.2	44.9	**17.4**	14.9	20.2
Self-reported health												
Excellent or very good	**0.6***	0.3	1.5	**41.4**	37.9	45.0	**41.9**	38.6	45.4	**11.4**	9.4	13.8
Good	**	**	**	**31.2**	27.3	35.3	**43.8**	39.8	48.0	**19.3**	16.4	22.7
Fair or poor	**1.1***	0.4	2.7	**18.1**	14.2	22.7	**33.7**	27.8	40.1	**37.7**	31.5	44.5
FEMALES	**2.8**	**2.2**	**3.7**	**45.3**	**43.3**	**47.3**	**25.7**	**24.1**	**27.5**	**15.2**	**14.0**	**16.5**
Psychological distress[b]												
Low (< 16)	**2.6**	1.8	3.6	**46.0**	43.4	48.7	**27.1**	24.8	29.4	**13.8**	12.3	15.4
Moderate (16 to 21)	**2.6***	1.5	4.3	**45.7**	41.7	49.7	**24.5**	21.2	28.0	**16.0**	13.6	18.7
High (22 to 29)	**3.6***	1.5	8.7	**43.1**	37.1	49.4	**20.0**	15.2	25.8	**23.8**	18.8	29.7
Very high (>= 30)	**5.6***	2.5	12.0	**32.3**	24.3	41.6	**23.3**	17.2	30.7	**22.5**	15.4	31.7
Physical activity[c]												
Sedentary	**2.7***	1.1	6.6	**40.3**	33.3	47.8	**21.7**	15.6	29.4	**19.3**	13.2	27.2
Insufficient time & sessions	**3.2***	1.9	5.3	**43.9**	40.3	47.6	**26.6**	23.7	29.7	**16.7**	14.4	19.3
Sufficient time & sessions	**2.3**	1.7	3.3	**47.1**	44.4	49.9	**27.1**	24.7	29.7	**13.8**	12.3	15.5
Alcohol use[d]												
Abstainer	**4.4**	2.8	6.9	**40.7**	36.1	45.4	**24.7**	21.4	28.2	**15.8**	13.3	18.6
Low risk	**2.4**	1.7	3.3	**46.7**	44.4	49.0	**26.2**	24.3	28.3	**15.1**	13.7	16.7
Risky or high risk	**	**	**	**45.5**	35.4	56.0	**25.2**	18.0	34.2	**12.5**	8.1	18.8
Met fruit / vegetable guidelines[e]												
Both guidelines	**5.5***	2.0	14.0	**46.5**	41.1	52.0	**24.5**	18.4	31.7	**15.1**	11.2	20.2
Vegetable guidelines only	**6.0***	2.6	13.2	**48.6**	41.4	55.8	**22.1**	17.6	27.3	**15.2**	11.6	19.7
Fruit guidelines only	**2.7**	1.8	4.0	**47.1**	44.4	49.9	**26.1**	23.8	28.6	**14.0**	12.4	15.8
Neither	**2.9**	2.0	4.1	**42.5**	39.6	45.4	**25.7**	23.3	28.4	**16.9**	14.9	19.0
Diabetes (excluding GDM)												
No	**3.0**	2.3	3.8	**46.2**	44.2	48.2	**26.0**	24.3	27.7	**14.1**	12.8	15.4
Yes	**	**	**	**15.6**	11.4	20.9	**21.5**	14.4	30.8	**35.7**	27.9	44.2
Smoking status												
Current smoker	**5.0***	3.0	8.2	**40.0**	35.3	44.8	**24.6**	20.8	28.8	**17.2**	14.0	20.9
Ex-smoker	**1.8***	1.0	3.2	**44.0**	39.7	48.4	**27.3**	23.5	31.3	**15.8**	13.5	18.5
Non-smoker	**2.7**	1.9	3.8	**48.0**	45.5	50.6	**24.8**	22.7	27.0	**14.3**	12.7	15.9
Self-reported health												
Excellent or very good	**3.2**	2.3	4.5	**53.4**	50.6	56.3	**26.0**	23.5	28.5	**8.8**	7.5	10.3
Good	**1.9***	1.1	3.1	**41.2**	38.1	44.4	**25.6**	23.0	28.4	**18.9**	16.7	21.2
Fair or poor	**4.2***	2.3	7.5	**30.3**	25.8	35.3	**26.6**	22.6	31.0	**25.2**	21.4	29.3

[a] Determined by calculation of body mass index (BMI) from self-reported height and weight.
[b] Based on Kessler 10 Psychological Distress Scale (K10).
[c] Based on National Guidelines (DoHA 1999).
[d] Based on National Guidelines (NHMRC 2001) for long-term risk of alcohol-related harm.
[e] Based on National Guidelines (NHMRC 2003).

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Estimates have been age standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above Victoria / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
**Estimate has a relative standard error of greater than 50 per cent and is not reported as it is unreliable for general use.

References

DoHA (Department of Health and Ageing) 1999, *National physical activity guidelines for adults*, DoHA, Canberra.

NHMRC (National Health and Medical Research Council) 2001, *Alcohol guidelines for Australian adults*, NHMRC, Canberra.

NHMRC (National Health and Medical Research Council) 2003, *Dietary guidelines for Australian adults*, NHMRC, Canberra.

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5 Asthma

Asthma is a common, chronic disorder affecting the airways of the lungs. Narrowing of these air passages (caused by the inflammation and swelling of the airway lining, and the overproduction of mucus) results in airway obstruction and difficulty with breathing, which may be reversed either spontaneously or with medical treatment. The disease affects all age groups, but particularly young persons, and ranges in severity from intermittent, mild symptoms to a severe, incapacitating and life threatening disorder.

The self-reported prevalence of asthma has been shown to be higher than prevalence levels based on objective measures of lung function (Woolcock et
al. 2001), which typically observe the prevalence of current or persistent asthma (wheezing episodes with abnormal airway function between episodes).

Survey results

- Approximately one in five persons (20.8 per cent) reported having ever been diagnosed by a doctor with asthma ('asthma ever') and 9.3 per cent reported having experienced asthma symptoms in the 12 months prior to the survey ('current asthma').
- The life-time prevalence of asthma and the prevalence of current asthma was significantly higher in females compared with males.
- While the life-time prevalence of asthma decreased with age, the prevalence of current asthma was similar across all age groups.
- While the life-time prevalence of asthma remained unchanged between 2003 and 2010, the prevalence of current asthma in males and females declined.
- There were no regional differences in the prevalence of current asthma in males or females.
- Males with current asthma were more likely to have very high levels of psychological distress, while females with current asthma were more likely to be obese.

Asthma, by age and sex

Respondents were asked whether they had ever been diagnosed by a doctor with asthma and, if so, whether they had had asthma symptoms (wheezing, coughing, shortness of breath, chest tightness) in the 12 months before the survey. Those persons who responded 'yes' to the first question are referred to as the population with 'asthma ever' and were included in the estimate of the life-time prevalence of asthma. If the respondent answered 'yes' to the following question about whether they had experienced symptoms of asthma in the 12 months before the survey, they were also included in the estimate of the prevalence of 'current asthma'. It should be noted that if a respondent had not experienced symptoms of asthma in the 12 months preceding the survey because their asthma was successfully managed by medication, they would **not** be included in the prevalence estimate of 'current asthma'.

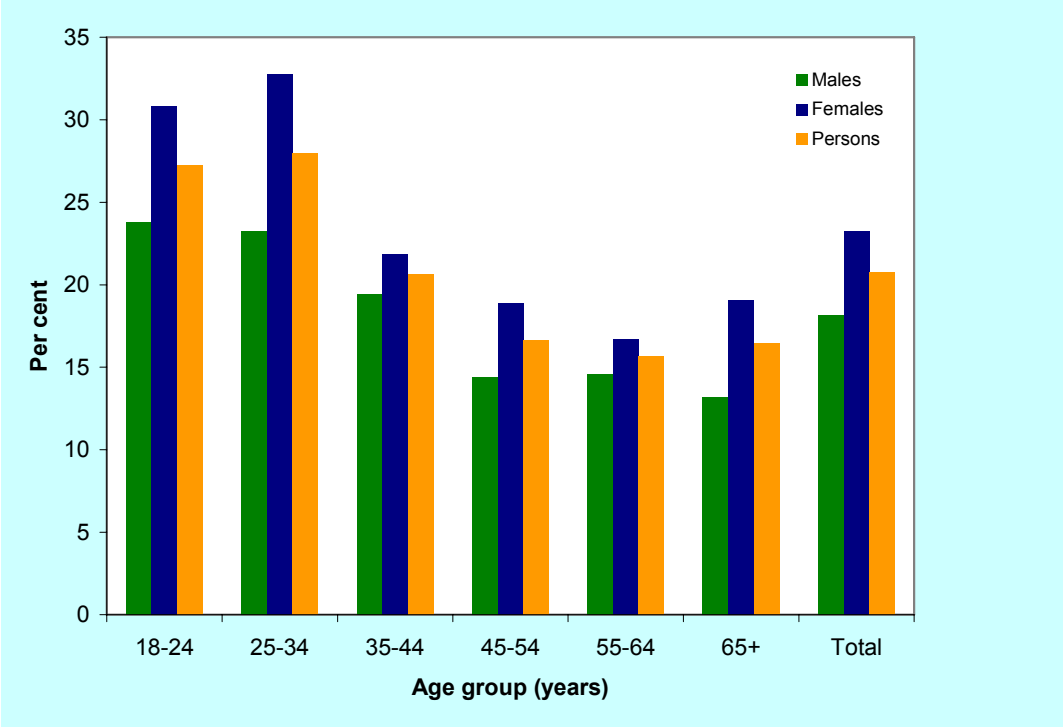
Table 5.1 and Figure 5.1 show the life-time prevalence of asthma, by age and sex. Approximately one in five persons (20.8 per cent) reported having ever been diagnosed by a doctor with asthma. Females overall (23.2 per cent) and those aged 65 years and over (19.1 per cent) had a significantly higher life-time prevalence of asthma compared with their male counterparts (18.1 and 13.2 per cent, respectively). The life-time prevalence of asthma declined with age, with persons in the 25-34 year age group (28.0 per cent) reporting the highest life-time prevalence of asthma.

Table 5.1 Life-time prevalence of asthma [a], by age and sex, 2010

Age group (years)	Males %	Males 95% CI LL	Males 95% CI UL	Females %	Females 95% CI LL	Females 95% CI UL	Persons %	Persons 95% CI LL	Persons 95% CI UL
18-24	**23.8**	16.5	33.0	**30.8**	23.4	39.4	**27.2**	21.8	33.4
25-34	**23.3**	17.7	30.0	**32.7**	27.4	38.5	**28.0**	24.0	32.4
35-44	**19.4**	15.5	24.1	**21.8**	18.7	25.3	**20.7**	18.1	23.5
45-54	**14.4**	11.5	17.9	**18.9**	16.1	22.0	**16.7**	14.6	19.0
55-64	**14.6**	11.5	18.3	**16.7**	14.0	19.7	**15.6**	13.6	18.0
65+	**13.2**	10.6	16.3	**19.1**	16.6	21.9	**16.4**	14.6	18.5
Total	**18.1**	**16.2**	**20.3**	**23.3**	**21.5**	**25.1**	**20.8**	**19.4**	**22.2**

[a] Reported ever having been diagnosed with asthma by a doctor.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data are crude estimates, except for totals, which represent the total for Victoria and were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above /below Victoria.

Figure 5.1 Life-time prevalence of asthma [a], by age and sex, 2010



[a] Reported ever having been diagnosed with asthma by a doctor.

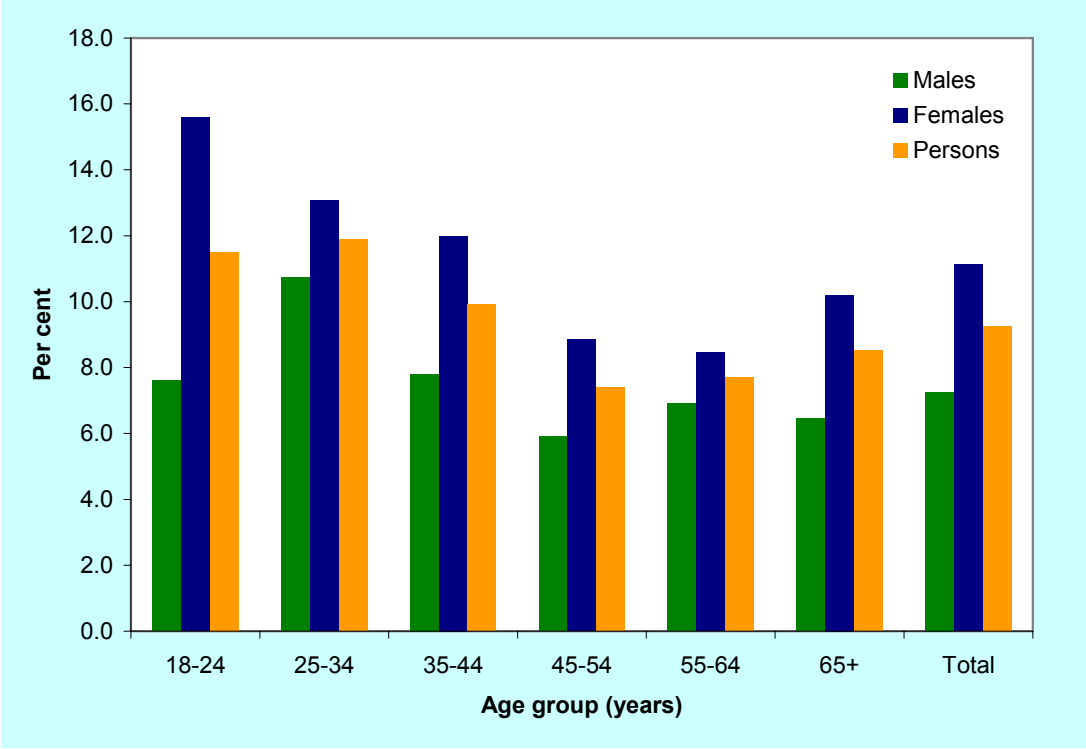
Table 5.2 and Figure 5.2 show the prevalence of current asthma by age and sex. Almost one in 10 (9.3 per cent) persons had experienced asthma symptoms in the previous 12 months. The prevalence of current asthma was similar between males and females and across all age groups, however, the overall prevalence in all females (11.1 per cent) was significantly higher compared with all males (7.3 per cent).

Table 5.2 Prevalence of current asthma [a], by age and sex, 2010

Age group (years)	Males			Females			Persons		
		95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**7.6***	4.1	13.8	**15.6**	10.3	23.0	**11.5**	8.1	16.1
25-34	**10.7**	6.9	16.3	**13.1**	9.5	17.6	**11.9**	9.2	15.3
35-44	**7.8**	5.3	11.3	**12.0**	9.6	14.9	**9.9**	8.1	12.1
45-54	**5.9**	4.1	8.5	**8.9**	7.0	11.1	**7.4**	6.0	9.0
55-64	**6.9**	4.8	9.9	**8.5**	6.6	10.8	**7.7**	6.2	9.5
65+	**6.5**	4.7	8.7	**10.2**	8.3	12.4	**8.5**	7.2	10.1
Total	**7.3**	**6.1**	**8.6**	**11.1**	**9.9**	**12.5**	**9.3**	**8.4**	**10.2**

[a] Reported ever having been diagnosed with asthma by a doctor and experienced symptoms in past 12 months.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data are crude estimates, except for totals, which represent the total for Victoria and have been age standardised to the 2006 Victorian population.
*Estimate has a relative standard error of between 25 and 50 per cent and should be interpreted with caution.

Figure 5.2 Prevalence of current asthma [a], by age and sex, 2010



[a] Reported ever having been diagnosed with asthma by a doctor and experienced symptoms in past 12 months.

Trend over time

Table 5.3 shows that the life-time prevalence of asthma in males and females remained unchanged between 2003 and 2010.

Table 5.3 Life-time prevalence of asthma [a], by sex, 2003-2010

Year	MALES			FEMALES			PERSONS		
		95% CI			95% CI			95% CI	
of survey	%	LL	UL	%	LL	UL	%	LL	UL
2003	**18.3**	16.5	20.2	**22.0**	20.5	23.7	**20.2**	19.0	21.5
2004	**18.2**	16.4	20.1	**21.9**	20.3	23.5	**20.1**	18.9	21.3
2005	**19.7**	17.8	21.7	**22.2**	20.6	23.9	**21.0**	19.7	22.3
2006	**19.6**	17.7	21.8	**22.4**	20.7	24.1	**21.1**	19.8	22.4
2007	**18.5**	16.5	20.6	**22.6**	20.9	24.4	**20.6**	19.3	22.0
2008	**19.5**	18.4	20.7	**22.7**	21.8	23.6	**21.2**	20.5	21.9
2009	**19.4**	17.6	21.4	**21.5**	20.0	23.1	**20.5**	19.3	21.7
2010	**18.1**	16.2	20.3	**23.3**	21.5	25.1	**20.8**	19.4	22.2

[a] Reported ever having been diagnosed with asthma by a doctor.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data were age-standardised to the 2006 Victorian population.
Ordinary least squares linear regression was used to test for trends over time.

Table 5.4 shows that the prevalence of current asthma in males and females declined between 2003 and 2010.

Table 5.4 Prevalence of current asthma [a], by sex 2003-2010.

Year	MALES			FEMALES			PERSONS		
		95% CI			95% CI			95% CI	
of survey	%	LL	UL	%	LL	UL	%	LL	UL
2003	**9.5**	8.2	10.9	**13.7**	12.4	15.1	**11.6**	10.7	12.6
2004	**8.6**	7.4	10.1	**12.1**	11.0	13.4	**10.4**	9.6	11.3
2005	**9.5**	8.1	11.1	**13.0**	11.7	14.5	**11.3**	10.3	12.4
2006	**9.2**	7.8	10.9	**11.9**	10.7	13.3	**10.6**	9.7	11.7
2007	**8.7**	7.4	10.3	**12.1**	10.7	13.5	**10.4**	9.4	11.5
2008	**8.9**	8.2	9.7	**12.3**	11.6	13.1	**10.7**	10.1	11.2
2009	**8.7**	7.4	10.1	**10.7**	9.6	11.9	**9.7**	8.9	10.7
2010	**7.3**	6.1	8.6	**6.4**	4.6	8.9	**0.0**	0.0	0.0

[a] Reported ever having been diagnosed with asthma by a doctor and experienced symptoms in past 12 months.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data were age-standardised to the 2006 Victorian population.
Ordinary least squares linear regression was used to test for trends over time.

Prevalence of current asthma, by Department of Health region

Table 5.5 shows the prevalence of current asthma in males and females, by Department of Health region. The prevalence of current asthma in males and females was similar between the metropolitan (7.0 and 10.8 per cent, respectively) and rural (8.2 and 12.1 per cent, respectively) regions of Victoria. There were no regional differences in the prevalence of current asthma.

Table 5.5: Prevalence of current asthma [a], by Department of Health region, 2010

	Males			Females		
		95% CI			95% CI	
	%	LL	UL	**%**	LL	UL
Eastern Metropolitan	**7.7**	5.0	11.6	**10.0**	7.5	13.1
North & West Metropolitan	**7.4**	5.1	10.6	**13.6**	10.9	16.9
Southern Metropolitan	**6.4**	4.4	9.4	**8.3**	6.1	11.3
All metropolitan regions	**7.0**	5.6	8.7	**10.8**	9.2	12.5
Barwon-South Western	**6.2***	3.5	11.0	**11.7**	8.6	15.6
Gippsland	**10.9**	6.8	17.1	**10.2**	7.2	14.4
Grampians	**9.6**	6.1	14.9	**11.5**	8.4	15.7
Hume	**10.2**	6.3	16.1	**14.5**	10.9	19.0
Loddon Mallee	**6.1**	4.1	9.0	**11.5**	8.8	14.9
All rural regions	**8.2**	6.5	10.3	**12.1**	10.5	13.8
All Victorians	**7.3**	**6.1**	**8.6**	**11.1**	**9.9**	**12.5**

[a] Reported ever having been diagnosed with asthma by a doctor and experienced symptoms in past 12 months.
Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above /below Victoria.
*Estimate has a relative standard error of between 25 and 50 per cent and should be interpreted with caution.

Prevalence of current asthma, by selected risk factors

Table 5.6 shows the prevalence of current asthma in males and females, by selected risk factors. Males with current asthma were more likely to have very high levels of psychological distress, while females with current asthma were more likely to be obese.

Table 5.6 Prevalence of current asthma [a], by selected risk factors, 2010

	Males			Females		
		95% CI			95% CI	
	%	LL	UL	%	LL	UL
Total	**7.3**	**6.1**	**8.6**	**11.1**	**9.9**	**12.5**
Psychological distress [b]						
Low (< 16)	**5.8**	4.5	7.4	**9.3**	7.8	11.1
Moderate (16 to 21)	**9.5**	6.9	13.0	**13.6**	10.9	16.9
High (22 to 29)	**10.3***	5.7	17.7	**16.3**	11.9	21.8
Very high (>= 30)	**16.0**	10.2	24.2	**18.9**	12.3	27.9
Physical activity [c]						
Sedentary	**9.9***	4.7	19.8	**9.6***	5.4	16.6
Insufficient time & sessions	**7.3**	5.2	10.3	**11.8**	9.4	14.7
Sufficient time & sessions	**7.8**	6.2	9.7	**11.4**	9.6	13.5
Alcohol use [d]						
Abstainer	**7.7**	5.0	11.7	**9.1**	6.9	11.9
Low risk	**7.0**	5.7	8.4	**11.6**	10.1	13.2
Risky or high risk	**4.6***	2.1	9.8	**6.7***	3.8	11.3
Met fruit / vegetable guidelines [e]						
Both guidelines	**5.0***	2.3	10.7	**8.1**	5.2	12.5
Vegetable guidelines only	**4.6***	2.2	9.4	**9.4**	6.4	13.5
Fruit guidelines only	**7.3**	5.6	9.4	**10.7**	9.0	12.7
Neither	**7.2**	5.7	9.2	**11.6**	9.7	13.9
Diabetes (excluding GDM)						
No	**7.1**	5.9	8.5	**11.0**	9.7	12.4
Yes	**9.5***	4.7	18.3	**8.4**	5.4	12.9
Smoking status	**0.0**	0.0	0.0	**0.0**	0.0	0.0
Current smoker	**6.5**	4.4	9.7	**12.6**	9.6	16.5
Ex-smoker	**6.5**	4.7	9.0	**14.8**	11.7	18.5
Non-smoker	**8.0**	6.3	10.1	**9.7**	8.3	11.3
Self-reported health						
Excellent or very good	**4.7**	3.3	6.6	**8.8**	7.1	10.8
Good	**7.1**	5.4	9.4	**11.3**	9.3	13.6
Fair or poor	**13.4**	10.2	17.4	**17.3**	13.9	21.4
Body weight status [f]						
Underweight	**	0.2	8.6	**5.9***	2.9	11.5
Normal	**6.0**	4.4	8.3	**8.7**	7.1	10.5
Overweight	**7.5**	5.6	10.0	**12.2**	9.2	15.9
Obese	**10.0**	6.9	14.3	**16.9**	13.3	21.3

[a] Reported ever having been diagnosed with asthma by a doctor and experienced symptoms in previous 12 months.
[b] Based on Kessler 10 Psychological Distress Scale (K10).
[c] Based on National Guidelines (DoHA 1999).
[d] Based on National Guidelines (NHMRC 2001) for long-term risk of alcohol-related harm.
[e] Based on National Guidelines (NHMRC 2003).
[f] Based on Body Mass Index (BMI) score.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above /below Victoria.
*Estimate has a relative standard error of between 25 and 50 per cent and should be interpreted with caution.
**Estimate has a relative standard error of greater than 50 per cent and is not reported as it is unreliable for general use.

Asthma action plans

The current focus for minimising the burden of asthma is directed at appropriate management of the disease. This includes maintaining regular contact with a doctor, developing a personalised asthma action plan, monitoring symptoms, taking medication appropriately, identifying and avoiding asthma triggers and being physically active.

Table 5.7 shows the proportion of persons with current asthma who were given an asthma action plan by their doctor, by age. More than half (52.9 per cent) of persons with current asthma had been given an asthma action plan. There were no differences by age.

Table 5.7 Proportion of persons with current asthma[a] given an asthma action plan by their doctor, by age group, 2010

	Persons		
Age group		95% CI	
(years)	%	LL	UL
18-24	**57.4**	39.5	73.5
25-34	**48.0**	34.8	61.6
35-44	**51.6**	41.2	61.9
45-54	**55.9**	45.3	66.0
55-64	**55.2**	44.0	65.8
65+	**58.1**	49.2	66.5
Total	**52.9**	**47.7**	**57.9**

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data are crude estimates, except for totals, which represent the total for Victoria and were age-standardised to the 2006 Victorian population.

Table 5.8 shows how often recipients of an asthma action plan used them. One quarter (25.0 per cent) of persons said they used their asthma action plan frequently, a further 26.2 per cent used their plan sometimes and 30.7 per cent used their plan rarely. About one in six (17.0 per cent) persons said they never used their asthma action plan.

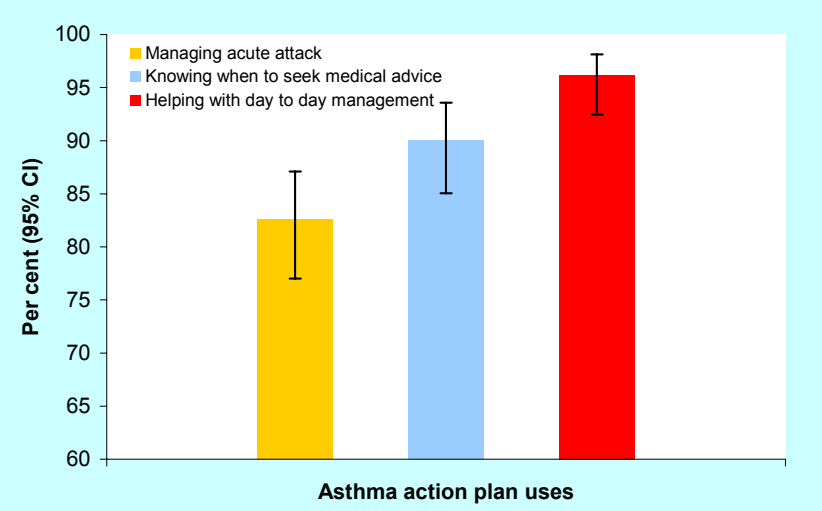
Table 5.8 Use of asthma action plans in past 12 months, 2010

	Persons		
		95% CI	
	%	LL	UL
Never	**17.0**	12.9	22.1
Rarely	**30.7**	24.5	37.8
Sometimes	**26.2**	20.4	33.0
Frequently	**25.0**	20.7	30.0

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Estimates have been age standardised to the 2006 Victorian population

Respondents with current asthma who used their asthma action plan were asked if they found the plans useful for managing an acute attack, knowing when to seek medical advice, and in helping with day-to-day management. Figure 5.3 shows that more than eight in 10 (82.6 per cent) persons found the asthma action plan useful to manage an acute asthma attack, 90.1 per cent of persons found the plan useful for knowing when to seek medical advice and 96.2 per cent of persons found their asthma action plan useful in helping with day-to-day management of their asthma.

Figure 5.3 Proportion of persons who found asthma action plans useful, by reason, 2010



Estimates were age-standardised to the 2006 Victorian population

References

DoHA (Department of Health and Ageing) 1999, *National physical activity guidelines for adults*, DoHA, Canberra.

NHMRC (National Health and Medical Research Council) 2001, *Australian alcohol guidelines: health risks and benefits*, NHMRC, Canberra.

NHMRC (National Health and Medical Research Council) 2003, *Dietary guidelines for Australian adults*, NHMRC, Canberra.

Woolcock, B, Marks, GB & Keena, VA 2001, 'The burden of asthma in Australia', *Medical Journal of Australia*, vol. 175, pp. 141–45.

6 Diabetes

Diabetes mellitus is a common chronic condition characterised by high blood glucose (sugar) levels. The two main types of diabetes mellitus are type 1 (insulin-dependent) diabetes and type 2 diabetes. Gestational diabetes is another form of the condition that affects women during pregnancy, with no prior diagnosis of diabetes. This condition usually abates after birth, but may be a risk factor for the development of type 2 diabetes later in life.

Type 1 diabetes is an autoimmune disease in which the body's immune system destroys the insulin-producing cells of the pancreas rendering the individual unable to produce enough of the hormone insulin, which is essential for the control of glucose levels in the blood. It most commonly occurs in persons under the age of 30 years and may be referred to as juvenile-onset diabetes. People with type 1 diabetes require replacement insulin injections (usually several times a day) for life. Unlike type 2 diabetes, it is not caused by lifestyle factors. Type 1 diabetes accounts for approximately 10- to 15 per cent of diabetes mellitus and while a great deal of research is being carried out, at this stage nothing can be done to prevent or cure type 1 diabetes.

Type 2 diabetes is the most common form of diabetes, which occurs mostly in people aged 50 years and over who are overweight, or have a family history of the condition. Accounting for around 85 per cent of all cases of diabetes mellitus, it is caused by insufficient production of insulin and/or the body becoming resistant to high glucose levels in the blood. In many cases, appropriate diet and exercise can control type 2 diabetes. More severe cases require treatment with oral glucose-lowering drugs, insulin injections, or a combination of these. Left untreated, diabetes mellitus can cause kidney, eye and nerve damage, heart disease, stroke and impotence.

Survey results

- Type 2 diabetes was the most common form of diabetes, with 5.6 per cent of males and 4.1 per cent of females reporting having ever been diagnosed by a doctor with type 2 diabetes.
- The prevalence of type 2 diabetes increased with age, with nearly one in five males (17.8 per cent) and 13.5 per cent of females, aged 65 years or over, reporting type 2 diabetes
- The prevalence of type 2 diabetes was similar between metropolitan (5.8 and 3.9 per cent in males and females respectively) and rural (5.2 and 4.4 per cent in males and females respectively) regions of Victoria.
- Males and females diagnosed with type 2 diabetes were more likely to report fair or poor health status and/or to be obese.
- The proportion of males and females who were ever diagnosed by a doctor with type 2 diabetes significantly increased between 2003 and 2010.

Prevalence of diabetes, by type, age and sex

Respondents were asked if they had ever been told by a doctor that they had diabetes and, if so, what type of diabetes they were told they had. Female respondents were asked if they had ever had diabetes, apart from when they were pregnant.

Table 6.1 shows that the life-time prevalence of doctor-diagnosed diabetes in males and females aged 18 years and over, by type and sex. Type 2 diabetes was the most common form of diabetes, with 5.6 per cent of males and 4.1 per cent of females reporting having ever been diagnosed by a doctor with type 2 diabetes. Males reported a significantly higher prevalence of type 2 diabetes compared with females. However, there was no difference between the sexes in the prevalence of type 1 diabetes.

Table 6.1 Prevalence of diabetes, by type and sex, 2010

	Type 1			Type 2			Gestational only			Other		
		95% CI			95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Males	**0.8**	0.5	1.3	**5.6**	4.8	6.5	**0.0**	.	.	**		
Females	**0.5***	0.3	0.8	**4.1**	3.5	4.7	**2.0**	1.4	2.7	**		
Persons	**0.7**	0.5	1.0	**4.8**	4.3	5.3	**1.0**	0.7	1.4	**0.03***	0.01	0.08

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data were age-standardised to the 2006 Victorian population.

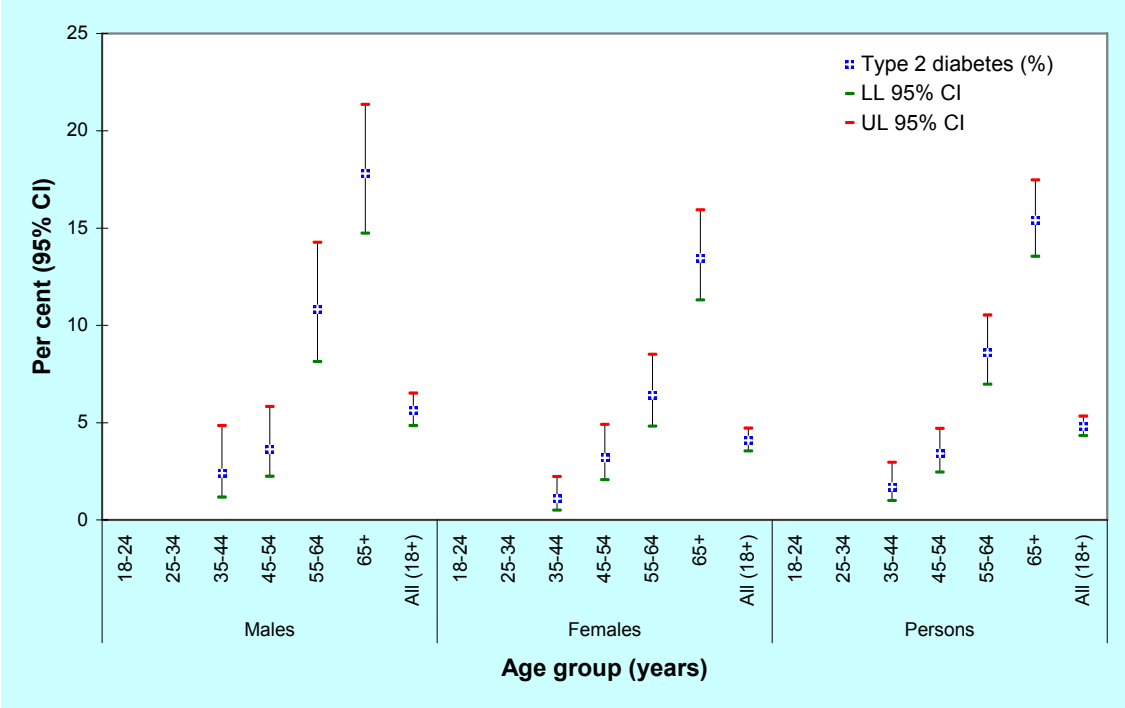
Table 6.2 and Figure 6.1 show the life-time prevalence of doctor-diagnosed type 2 diabetes, by age and sex. The prevalence of type 2 diabetes increased with age, with nearly one in five males (17.8 per cent) and 13.5 per cent of females, aged 65 years or over, reporting type 2 diabetes.

Table 6.2 Prevalence of type 2 diabetes, by age and sex, 2010

	MALES			FEMALES			PERSONS		
Age group		95% CI			95% CI			95% CI	
(years)	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**0**			**			**		
25-34	**0**			**			**		
35-44	**2.4***	1.2	4.9	**1.1***	0.5	2.2	**1.7***	1.0	3.0
45-54	**3.6**	2.2	5.8	**3.2**	2.1	4.9	**3.4**	2.5	4.7
55-64	**10.8**	8.1	14.3	**6.4**	4.8	8.5	**8.6**	7.0	10.5
65+	**17.8**	14.7	21.4	**13.5**	11.3	15.9	**15.4**	13.5	17.5
Total	**5.6**	**4.8**	**6.5**	**4.1**	**3.5**	**4.7**	**4.8**	**4.3**	**5.3**

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Figure 6.1 Prevalence of type 2 diabetes, by age and sex, 2010



Prevalence of type 2 diabetes, by Department of Health region

Table 6.3 shows the life-time prevalence of doctor-diagnosed type 2 diabetes by Department of Health region and sex. There were no regional differences, with males (5.8 per cent) and females (3.9 per cent) from the metropolitan regions reporting a similar prevalence of type 2 diabetes compared with their rural counterparts (5.2 and 4.4 per cent, respectively).

Table 6.3 Prevalence of type 2 diabetes, by Department of Health region and sex, 2010

		95% CI	
MALES	**%**	LL	UL
Eastern Metropolitan	**3.9**	2.5	6.1
North & West Metropolitan	**7.2**	5.4	9.5
Southern Metropolitan	**5.9**	4.2	8.1
All metropolitan males	**5.8**	4.7	7.0
Barwon-South Western	**5.3**	3.7	7.4
Gippsland	**5.4**	3.8	7.6
Grampians	**4.9**	3.2	7.5
Hume	**4.9**	3.5	7.0
Loddon Mallee	**5.2**	3.8	7.2
All rural males	**5.2**	4.4	6.1
All Victorian males	**5.6**	**4.8**	**6.5**
FEMALES			
Eastern Metropolitan	**3.1**	2.1	4.4
North & West Metropolitan	**5.2**	3.9	7.0
Southern Metropolitan	**3.3**	2.3	4.7
All metropolitan females	**3.9**	3.2	4.8
Barwon-South Western	**3.5**	2.6	4.8
Gippsland	**4.4**	3.2	6.0
Grampians	**5.2**	3.6	7.5
Hume	**4.6**	3.4	6.2
Loddon Mallee	**4.7**	3.3	6.6
All rural females	**4.4**	3.8	5.2
All Victorian females	**4.1**	**3.5**	**4.7**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.

Prevalence of type 2 diabetes, by selected risk factors

Table 6.4 shows the prevalence of type 2 diabetes in males and females, by selected risk factors. Males who reported type 2 diabetes were more likely to have moderate psychological distress levels, to abstain from alcohol consumption, to report fair or poor health status, and/or to be obese. Females with type 2 diabetes were more likely to report fair or poor health status, and/or to be obese.

Table 6.4 Prevalence of type 2 diabetes, by selected risk factor, 2010

	Males			Females		
		95% CI			95% CI	
	%	LL	UL	%	LL	UL
Total	**5.6**	**4.8**	**6.5**	**4.1**	**3.5**	**4.7**
Psychological distress [a]	**0.0**	0	0	**0.0**	0.0	0.0
Low (< 16)	**4.4**	3.6	5.3	**3.4**	2.7	4.1
Moderate (16 to 21)	**8.9**	6.8	11.7	**5.5**	4.2	7.1
High (22 to 29)	**9.2**	6.0	13.9	**5.3**	3.5	7.9
Very high (>= 30)	**9.6***	4.7	18.4	**3.2***	1.5	6.7
Physical activity [b]						
Sedentary	**7.2**	5.2	9.9	**6.2**	4.2	9.0
Insufficient time & sessions	**6.0**	4.7	7.6	**4.0**	3.2	5.0
Sufficient time & sessions	**4.7**	3.7	5.9	**4.0**	3.2	5.0
Alcohol use [c]	**0.0**	0.0	0.0		0.0	0.0
Abstainer	**9.5**	7.2	12.5	**5.3**	4.2	6.5
Low risk	**5.1**	4.2	6.0	**3.6**	3.0	4.4
Risky or high risk	**2.8***	1.4	5.5	**	**	**
Met fruit / vegetable guidelines [d]						
Both guidelines	**8.2***	4.8	13.8	**4.4**	2.8	6.9
Veg guide only	**6.7***	4.0	11.1	**3.7**	2.4	5.7
Fruit guide only	**6.6**	5.5	8.0	**3.9**	3.3	4.7
Neither	**4.6**	3.6	5.9	**4.4**	3.5	5.6
Smoking status						
Current smoker	**6.4**	4.3	9.5	**3.4**	2.1	5.5
Ex-smoker	**5.8**	4.6	7.3	**4.1**	3.1	5.3
Non-smoker	**5.3**	4.2	6.6	**4.2**	3.4	5.0
Self-reported health						
Excellent or very good	**2.6**	1.9	3.7	**2.1**	1.6	2.8
Good	**5.6**	4.4	7.1	**4.5**	3.6	5.8
Fair or poor	**11.7**	9.4	14.5	**7.6**	6.1	9.4
Body weight status [e]						
Underweight	**	**	**	**3.6**	3.6	3.6
Normal	**4.1**	3.0	5.8	**2.0**	1.4	2.8
Overweight	**4.8**	3.7	6.1	**3.3**	2.5	4.4
Obese	**9.8**	7.6	12.4	**9.3**	7.2	12.0

[a] Based on the Kessler 10 scale for psychological distress
[b] Based on National Guidelines (DoHA, 1999).
[c] Based on National Guidelines (NHMRC 2001) for long-term risk of alcohol-related harm.
[d] Based on National Guidelines (NHMRC, 2003)
[e] Based on Body Mass Index (BMI)
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Trend over time

Table 6.5 shows the prevalence of doctor-diagnosed type 2 diabetes in males and females, between 2003 and 2010. The prevalence of type 2 diabetes in males and females significantly increased between 2003 and 2010.

Table 6.5 Prevalence of type 2 diabetes, 2003-2010

Year of survey	MALES %	MALES 95% CI LL	MALES 95% CI UL	FEMALES %	FEMALES 95% CI LL	FEMALES 95% CI UL	PERSONS %	PERSONS 95% CI LL	PERSONS 95% CI UL
2003	**3.9**	3.1	4.9	**2.8**	2.3	3.5	**3.3**	2.8	3.9
2004	**4.8**	3.8	5.9	**3.0**	2.5	3.7	**3.8**	3.3	4.4
2005	**3.9**	3.2	4.6	**3.8**	3.1	4.6	**3.8**	3.3	4.5
2006	**4.2**	3.5	5.1	**3.7**	3.1	4.4	**4.0**	3.5	4.5
2007	**4.6**	3.8	5.5	**3.8**	3.2	4.5	**4.1**	3.7	4.7
2008	**5.8**	5.3	6.4	**3.8**	3.5	4.1	**4.8**	4.5	5.1
2009	**5.8**	5.0	6.8	**4.0**	3.5	4.6	**4.8**	4.3	5.4
2010	**5.6**	4.8	6.5	**4.1**	3.5	4.7	**4.8**	4.3	5.3

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Health care use in past 12 months

Survey respondents who reported having ever been diagnosed with diabetes, with the exception of females who had only ever been diagnosed with gestational diabetes, were asked whether they had consulted a health professional in the past 12 months for their diabetes. Table 6.7 summarises the findings. Most respondents with diabetes reported seeing a general practitioner (93.2 per cent) in the past 12 months, while almost one-third had seen a specialist (32.0 per cent). More than half (53.1 per cent) had consulted a diabetes nurse or educator, 42.9 per cent had visited a podiatrist or chiropodist, and 65.5 per cent reported seeing an ophthalmologist or optometrist.

Table 6.6 Sought health care for diabetes in preceding 12 months, by type of health care professional, 2010

	%	95% CI LL	95% CI UL
Seen GP	**93.2**	86.6	96.7
Seen podiatrist/chiropodist	**42.8**	38.1	47.6
Seen diabetes nurse/educator	**53.1**	47.0	59.1
Seen opthalmologist/optometrist	**65.5**	59.0	71.4
Seen dietitian/nutritionist	**36.9**	30.7	43.6
Seen specialist	**32.0**	26.4	38.1
Seen no health professional	**	**	**

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

It is important for people with diabetes to have their feet checked regularly because they have a higher risk of infection, delayed healing and nerve damage. Therefore, respondents with diabetes were asked if and how often they had a health care professional check their feet for sores and irritations. Almost three-quarters (71.4 per cent) of persons with diabetes had had a health care professional check their feet for sores and irritations in the past 12 months (data not shown).

Respondents with diabetes were subsequently asked how often they spent time caring for their feet and table 6.7 summarises the findings. More than half of persons with diabetes (51.2 per cent) spent time caring for their feet once a week or more.

Table 6.7 Time spent caring for feet among persons with diabetes, 2010

		95% CI	
	%	LL	UL
Once a week or more	**51.2**	44.3	58.1
Once every two weeks	**6.1***	2.5	14.1
Once a month	**12.3**	9.4	16.0
Less than once a month	**20.8**	16.1	26.4

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

References

DoHA (Department of Health and Ageing) 1999, *National physical activity guidelines for adults*, DoHA, Canberra.

NHMRC (National Health and Medical Research Council) 2001, *Australian alcohol guidelines: health risks and benefits*, NHMRC, Canberra.

NHMRC (National Health and Medical Research Council) 2003, *Dietary guidelines for Australian adults*, NHMRC, Canberra.

7 Mental Health

There is strong and consistent evidence of an association between depression and anxiety and physical illness in each of the National Health Priority Area disease groups (Clark & Currie 2009). Depression is also associated with poorer health outcomes in those with physical diseases. Given the significance of mental health and its relationship to poor physical health, a measure of psychological distress, the Kessler Psychological Distress Scale (K10) has been included in the survey (Andrews & Slade 2001). The K10 is a set of 10 questions designed to categorise the level of psychological distress over a four-week period. It cannot be used to determine the presence of major illnesses but has been validated as a simple measure of anxiety and depression (psychological distress) that a person may have experienced in the four weeks prior to interview.

The K10 covers the dimensions of depression and anxiety, such as nervousness, hopelessness, restlessness, sadness and worthlessness. It consists of 10 questions that have the same response categories: all of the time, most of the time, some of the time, a little of the time and none of the time (that are scored 5 through to 1). The 10 items are summed to yield scores ranging from 10 to 50. Individuals are categorised to four levels of psychological distress, based on their score: low (<16), moderate (16–21), high (22–29) and very high (30–50).

The survey also collected information regarding the life-time prevalence of depression and anxiety (ever diagnosed by a doctor) and the use of mental health services.

Survey results

Psychological distress

- The majority of Victorians aged 18 years and over (64.4 per cent) reported low levels of psychological distress in the four weeks preceding the survey, with a further 21.7 per cent reporting moderate levels. High and very high levels of psychological distress were reported by 7.9 per cent and 2.6 per cent of persons, respectively.
- A higher proportion of females reported very high (3.4 per cent) levels of psychological distress compared with their male counterparts (1.8 per cent).
- There were no significant regional differences in the proportions of males or females who reported low, moderate, high or very high levels of psychological distress.
- The proportion of males and females who reported low, moderate, high or very high levels of psychological distress remained unchanged between 2003 and 2010.

Use of mental health services

- More than one in ten (11.0 per cent) persons reported seeking professional help for a mental health problem in the last 12 months.
- Females were more likely to have sought professional help for a mental health problem than males.
- Persons aged 65 years and over were less likely to have sought professional help for a mental health related problem than all age groups.
- The higher the level of psychological distress, the more likely a person was to have sought professional help.
- There were no regional differences in the proportion of males or females, who sought professional help for a mental health problem.
- More than half the persons (56.3 per cent) who sought professional help for a mental health problem had seen a general practitioner, 39.6 per cent had seen a psychologist or private counselling service, and 22.0 per cent had seen a private psychiatrist.

- The proportion of females and persons, but not males, who sought help for a mental health problem in the past 12 months significantly increased between 2003 and 2010.
- The proportion of males or females who sought help for a mental health problem, in the 12 months preceding the survey, from a general practitioner or private psychiatrist remained unchanged between 2003 and 2010.
- The proportion of females and persons, but not males, who sought help for a mental health problem from a psychologist or private counselling service significantly increased between 2003 and 2010.

Depression and/or anxiety

- More than one in five (20.1 per cent) persons had ever been diagnosed by a doctor with depression and/or anxiety.
- The life-time prevalence of doctor-diagnosed depression and/or anxiety was significantly higher in females (26.8 per cent) compared with males (13.3 per cent).
- There were no significant regional differences in either males or females in the prevalence of depression and/or anxiety.
- The life-time prevalence of doctor-diagnosed depression and anxiety significantly increased in females and persons, but not males, between 2003 and 2010.
- Males and females who had ever been diagnosed with depression and/or anxiety were more likely to report fair or poor health. However females were also more likely to be at long-term risk of alcohol-related harm, to be current smokers, and/or to be obese.
- The higher the level of psychological distress, the more likely a person was to have been diagnosed with depression and/or anxiety.

Psychological distress

Psychological distress, by age and sex

Table 7.1 shows levels of psychological distress by age and sex. Overall, 2.6 per cent of persons reported very high levels and 7.9 per cent reported high levels of psychological distress in the previous four weeks. More than one in five (21.7 per cent) reported moderate levels, and the majority (64.4 per cent) reported low levels of psychological distress.

A higher proportion of females reported very high (3.4 per cent) levels of psychological distress compared with their male counterparts (1.8 per cent), while a higher proportion of males reported low levels of psychological distress (68.9 per cent) compared with their female counterparts (59.9 per cent).

Persons aged 18-24 years were more likely to have experienced moderate (30.9 per cent) or high (15.1 per cent) levels of psychological distress, compared with all ages (21.7 and 7.9 per cent respectively). By contrast, persons aged 55-64 years (70.3 er cent) were more likely to have experienced low levels of psychological distress, compared with all ages (64.4 per cent).

Table 7.1 Psychological distress[(a)], by age and sex, 2010

Age group (years)	Low (10-15)			Moderate (16-21)			High (22-29)			Very high (30-50)		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**60.5**	50.3	69.8	**29.8**	21.5	39.8	**9.4***	4.8	17.4	**	**	**
25-34	**68.8**	61.6	75.2	**20.2**	15.0	26.7	**7.4***	4.2	12.6	**1.9***	0.7	4.9
35-44	**70.3**	65.2	74.9	**19.2**	15.4	23.7	**6.9**	4.6	10.3	**	0.4	3.3
45-54	**67.8**	63.4	72.0	**19.1**	15.8	23.0	**7.5**	5.5	10.3	**1.6***	0.8	3.2
55-64	**75.3**	71.0	79.2	**14.2**	11.2	18.0	**4.1**	2.6	6.2	**2.9***	1.6	5.1
65+	**70.7**	66.7	74.4	**15.1**	12.4	18.4	**4.6**	3.1	6.9	**2.6***	1.5	4.5
All males	**68.9**	**66.4**	**71.2**	**19.2**	**17.2**	**21.3**	**6.9**	**5.6**	**8.5**	**1.8**	**1.2**	**2.5**
FEMALES												
18-24	**40.5**	32.3	49.2	**32.1**	24.4	40.8	**21.1**	14.6	29.4	**4.4***	2.2	8.5
25-34	**59.1**	53.1	64.8	**27.2**	22.2	32.9	**8.0**	5.4	11.9	**3.5***	1.9	6.3
35-44	**62.7**	58.8	66.5	**22.6**	19.5	26.1	**7.8**	5.9	10.2	**3.9**	2.6	5.8
45-54	**62.2**	58.4	65.8	**22.9**	19.8	26.2	**7.6**	5.8	10.0	**3.7**	2.5	5.3
55-64	**65.3**	61.5	68.9	**21.0**	18.0	24.3	**6.2**	4.5	8.4	**4.0**	2.7	5.9
65+	**64.3**	61.0	67.5	**21.5**	18.8	24.4	**5.9**	4.5	7.8	**1.0***	0.5	1.9
All females	**59.9**	**57.9**	**61.9**	**24.0**	**22.3**	**25.8**	**9.0**	**7.8**	**10.4**	**3.4**	**2.7**	**4.2**
PERSONS												
18-24	**50.7**	44.1	57.4	**30.9**	25.1	37.5	**15.1**	10.8	20.5	**2.3***	1.2	4.4
25-34	**64.0**	59.3	68.4	**23.7**	19.9	27.9	**7.7**	5.5	10.7	**2.7***	1.6	4.5
35-44	**66.4**	63.3	69.5	**20.9**	18.4	23.7	**7.4**	5.8	9.3	**2.6**	1.7	3.8
45-54	**65.0**	62.1	67.8	**21.0**	18.7	23.5	**7.6**	6.2	9.3	**2.6**	1.9	3.7
55-64	**70.3**	67.4	73.0	**17.7**	15.4	20.1	**5.2**	4.0	6.6	**3.4**	2.4	4.8
65+	**67.2**	64.6	69.6	**18.6**	16.6	20.8	**5.3**	4.2	6.7	**1.7**	1.1	2.6
All persons	**64.4**	**62.8**	**65.9**	**21.7**	**20.4**	**23.1**	**7.9**	**7.0**	**9.0**	**2.6**	**2.1**	**3.1**

(a) Based on Kessler 10 Psychological Distress Scale (K10).
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above Victoria / below Victoria.
* Estimate has a relative standard error of between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Psychological distress, by Department of Health region

Table 7.2 shows the levels of psychological distress in males and females, by Department of Health region. There were no significant regional differences in the proportions of males or females who reported low, moderate, high or very high levels of psychological distress.

Table 7.2 Psychological distress[(a)], in males and females, by Department of Health region, 2010

	Low (10-15)			Moderate (16-21)			High (22-29)			Very high (30-50)		
		95% CI			95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**71.5**	65.7	76.6	**18.6**	14.3	23.9	**6.6***	3.9	10.9	**	**	**
North & West Metropolitan	**66.7**	61.7	71.4	**19.8**	15.9	24.3	**7.8**	5.2	11.4	**2.1***	1.2	3.7
Southern Metropolitan	**68.1**	62.6	73.2	**18.5**	14.4	23.5	**7.7**	4.9	11.7	**2.2***	1.1	4.5
All metropolitan males	**68.6**	**65.5**	**71.6**	**18.9**	**16.5**	**21.6**	**7.3**	**5.6**	**9.3**	**1.8**	**1.1**	**2.8**
Barwon-South Western	**70.5**	64.3	76.0	**18.4**	13.9	24.0	**5.7***	3.4	9.5	**1.9***	0.9	3.9
Gippsland	**71.4**	64.7	77.3	**19.3**	14.1	25.8	**6.0***	3.5	10.1	**	0.3	2.3
Grampians	**65.8**	59.2	71.9	**22.0**	16.6	28.4	**7.8**	4.8	12.4	**2.3***	1.1	4.9
Hume	**67.4**	61.2	72.9	**22.8**	17.9	28.6	**4.5***	2.3	8.4	**3.0***	1.2	7.4
Loddon Mallee	**73.7**	67.9	78.8	**17.1**	13.1	22.0	**4.0**	2.5	6.4	**	**	**
All rural males	**69.9**	**66.9**	**72.7**	**20.0**	**17.6**	**22.7**	**5.5**	**4.3**	**7.0**	**1.9**	**1.2**	**2.9**
All Victorian males	**68.9**	**66.4**	**71.2**	**19.2**	**17.2**	**21.3**	**6.9**	**5.6**	**8.5**	**1.8**	**1.2**	**2.5**
FEMALES												
Eastern Metropolitan	**62.0**	57.5	66.4	**24.5**	20.6	28.8	**8.2**	5.8	11.5	**1.9***	0.9	3.6
North & West Metropolitan	**54.9**	50.7	59.0	**26.4**	22.9	30.2	**11.0**	8.5	14.1	**2.6**	1.6	4.1
Southern Metropolitan	**61.3**	56.8	65.6	**22.7**	19.1	26.7	**7.9**	5.8	10.6	**5.1**	3.3	7.9
All metropolitan females	**58.7**	**56.1**	**61.2**	**24.7**	**22.5**	**27.0**	**9.5**	**7.9**	**11.3**	**3.2**	**2.4**	**4.2**
Barwon-South Western	**63.3**	58.1	68.3	**21.4**	17.6	25.8	**7.9**	5.0	12.2	**4.0***	2.1	7.6
Gippsland	**62.3**	57.0	67.2	**23.9**	19.5	28.8	**8.1**	5.5	11.7	**3.3***	1.9	5.7
Grampians	**65.8**	60.4	70.8	**20.9**	16.7	25.8	**6.8**	4.4	10.2	**5.0***	2.9	8.6
Hume	**63.2**	57.6	68.5	**19.9**	15.7	24.9	**10.7**	7.4	15.3	**3.4***	1.9	5.8
Loddon Mallee	**63.3**	58.7	67.7	**24.1**	20.4	28.3	**5.7**	3.9	8.3	**4.2***	2.5	6.8
All rural females	**63.3**	**60.9**	**65.6**	**22.1**	**20.2**	**24.2**	**7.8**	**6.4**	**9.4**	**4.1**	**3.1**	**5.3**
All Victorian females	**59.9**	**57.9**	**61.9**	**24.0**	**22.3**	**25.8**	**9.0**	**7.8**	**10.4**	**3.4**	**2.7**	**4.2**

(a) Based on Kessler 10 Psychological Distress Scale (K10).
Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Trend over time

Table 7.3 shows that the proportion of males and females who had experienced low, moderate, high or very high levels of psychological distress in the preceding four weeks did not change between 2003 and 2010.

Table 7.3 Psychological distress[(a)], by sex, 2003-2010

	2003			2004			2005			2006			2007			2008			2009			2010		
		95% CI			95% CI			95% CI			95% CI			95% CI			95% CI			95% CI			95% CI	
Males	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Low (10-15)	**70.0**	67.8	72.0	**68.6**	66.3	70.8	**63.9**	61.5	66.3	**67.4**	64.9	69.8	**69.1**	66.6	71.5	**65.3**	64.0	66.6	**65.2**	62.9	67.4	**68.9**	66.4	71.2
Moderate (16-21)	**19.3**	17.5	21.2	**19.9**	18.1	21.9	**23.3**	21.2	25.5	**19.6**	17.6	21.7	**18.9**	16.9	21.0	**21.5**	20.4	22.7	**21.2**	19.3	23.2	**19.2**	17.2	21.3
High (22-29)	**7.1**	6.0	8.4	**6.5**	5.3	7.8	**6.9**	5.7	8.4	**6.7**	5.6	8.1	**6.8**	5.5	8.5	**7.3**	6.6	8.0	**8.1**	6.9	9.5	**6.9**	5.6	8.5
Very High (30-50)	**2.1**	1.5	2.7	**2.6**	1.9	3.5	**3.0**	2.2	4.0	**2.3**	1.6	3.4	**1.6**	1.1	2.4	**2.4**	2.0	2.8	**2.7**	2.1	3.6	**1.8**	1.2	2.5
Females																								
Low (10-15)	**63.6**	61.7	65.5	**61.4**	59.5	63.3	**58.0**	56.1	60.0	**59.7**	57.7	61.6	**58.9**	56.9	60.9	**59.7**	58.6	60.7	**56.2**	54.4	58.1	**59.9**	57.9	61.9
Moderate (16-21)	**21.9**	20.2	23.6	**21.0**	19.5	22.6	**25.7**	23.9	27.5	**24.8**	23.1	26.6	**25.4**	23.6	27.2	**24.0**	23.1	25.0	**24.8**	23.1	26.5	**24.0**	22.3	25.8
High (22-29)	**9.5**	8.3	10.7	**10.8**	9.6	12.1	**10.5**	9.2	11.9	**8.9**	7.8	10.2	**9.5**	8.3	10.8	**9.3**	8.7	9.9	**10.7**	9.5	12.0	**9.0**	7.8	10.4
Very High (30-50)	**3.2**	2.5	4.0	**4.3**	3.5	5.1	**3.4**	2.8	4.2	**3.3**	2.7	4.2	**3.1**	2.5	3.8	**3.8**	3.4	4.3	**4.8**	4.1	5.7	**3.4**	2.7	4.2
Persons																								
Low (10-15)	**66.7**	65.2	68.1	**64.9**	63.5	66.4	**60.9**	59.4	62.5	**63.5**	61.9	65.1	**63.8**	62.2	65.4	**62.4**	61.6	63.3	**60.7**	59.2	62.2	**64.4**	62.8	65.9
Moderate (16-21)	**20.7**	19.4	21.9	**20.6**	19.3	21.8	**24.5**	23.2	26.0	**22.2**	20.9	23.6	**22.2**	20.8	23.6	**22.8**	22.1	23.6	**23.0**	21.7	24.3	**21.7**	20.4	23.1
High (22-29)	**8.3**	7.5	9.2	**8.7**	7.8	9.6	**8.7**	7.8	9.7	**7.8**	7.0	8.7	**8.2**	7.3	9.2	**8.3**	7.8	8.8	**9.4**	8.5	10.3	**7.9**	7.0	9.0
Very High (30-50)	**2.6**	2.2	3.1	**3.4**	2.9	4.0	**3.2**	2.7	3.8	**2.8**	2.3	3.5	**2.4**	1.9	2.9	**3.1**	2.8	3.4	**3.8**	3.3	4.4	**2.6**	2.1	3.1

(a) Based on Kessler 10 Psychological Distress Scale (K10).
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data were age-standardised to the 2006 Victorian population.
Ordinary least squares regression was used to test for trends over time.

Psychological distress, by selected risk factors

Table 7.4 shows the levels of psychological distress in males, by selected health indicators. Males who had experienced low levels of psychological distress were more likely to have met the

guidelines for vegetable consumption and/or to report excellent of very good health. By contrast, males who had experienced high or very high levels of psychological distress were more likely report fair or poor health and those with high levels were also more likely to report being sedentary.

Table 7.4 Psychological distress[a] in males, by selected risk factors, 2010

	Low (10-15)			Moderate (16-21)			High (22-29)			Very high (30-50)		
		95% CI			95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
MALES	**68.9**	**66.4**	**71.2**	**19.2**	**17.2**	**21.3**	**6.9**	**5.6**	**8.5**	**1.8**	**1.2**	**2.5**
Physical activity [b]												
Sedentary	**61.4**	53.0	69.2	**13.1***	7.4	22.3	**15.6***	8.5	26.9	**3.7***	1.5	9.1
Insufficient time & sessions	**69.3**	64.0	74.1	**18.9**	15.2	23.4	**8.4**	5.6	12.6	**1.0***	0.5	2.0
Sufficient time & sessions	**71.2**	68.1	74.0	**18.9**	16.5	21.6	**5.7**	4.3	7.6	**1.7**	1.1	2.8
Alcohol consumption [c]												
Abstainer	**59.4**	52.6	65.9	**20.9**	15.7	27.3	**10.9**	6.8	17.0	**2.9***	1.6	5.1
Low risk	**71.4**	68.7	73.9	**18.2**	16.1	20.6	**6.4**	5.0	8.1	**1.4**	0.9	2.1
Risky / High risk	**57.2**	48.2	65.8	**26.9**	19.4	36.1	**8.6***	3.8	18.1	**	**	**
Met fruit / vegetable guidelines [d]												
Both guidelines	**68.4**	60.6	75.3	**12.7***	7.2	21.3	**2.8***	1.2	6.4	**	**	**
Vegetable guidelines only	**80.3**	73.5	85.7	**12.0**	7.5	18.6	**2.2***	1.0	4.8	**2.5***	1.0	6.0
Fruit guidelines only	**70.3**	66.6	73.8	**18.7**	15.7	22.0	**6.2**	4.5	8.5	**1.7***	0.9	2.9
Neither	**68.1**	64.7	71.3	**20.1**	17.5	23.1	**7.3**	5.5	9.5	**1.8**	1.1	2.9
Diabetes *(excluding GDM)*												
None	**70.1**	67.7	72.5	**18.7**	16.8	20.9	**6.6**	5.3	8.3	**1.6**	1.1	2.4
Yes	**48.3**	41.0	55.7	**13.8**	8.7	21.3	**5.0***	3.0	8.3	**3.9***	1.6	9.4
Smoking status												
Current smoker	**59.5**	54.0	64.8	**19.9**	15.9	24.6	**9.8**	6.7	14.0	**4.0***	2.2	7.0
Ex-smoker	**63.9**	57.9	69.5	**25.8**	20.6	31.7	**5.6**	3.8	8.2	**1.4***	0.9	2.4
Non-smoker	**72.5**	69.2	75.6	**17.9**	15.4	20.7	**5.9**	4.3	8.1	**1.2***	0.6	2.4
Self-reported health												
Excellent or very good	**77.8**	74.5	80.8	**16.2**	13.6	19.2	**4.0**	2.7	5.8	**0.5***	0.2	1.2
Good	**66.9**	62.7	70.9	**21.0**	17.6	24.8	**7.3**	5.0	10.6	**0.8***	0.4	1.6
Fair or poor	**53.0**	47.7	58.1	**20.4**	16.6	24.7	**14.9**	11.0	20.0	**6.9**	4.3	10.9
Body weight status [e]												
Underweight	**37.9**	30.7	45.5	**	**	**	**1.7***	1.0	2.9	**	**	**
Normal weight	**71.1**	67.1	74.7	**16.6**	13.7	19.9	**7.6**	5.6	10.4	**1.6***	0.9	3.0
Overweight	**69.4**	65.2	73.4	**20.7**	17.2	24.6	**5.6**	3.5	8.6	**1.1***	0.6	1.9
Obese	**64.9**	58.9	70.5	**21.1**	16.4	26.7	**8.5**	5.4	13.0	**2.9***	1.5	5.8

(a) Based on Kessler 10 Psychological Distress Scale (K10).
(b) Based on National Guidelines (DoHA 1999) and excludes adults aged less than 19 years.
(c) Based on National Guidelines (NHMRC 2001).
(d) Based on National Guidelines (NHMRC 2003).
(e) Determined by calculation of Body Mass Index (BMI).
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Table 7.5 shows the levels of psychological distress in females, by selected risk factors. Females who had experienced low levels of psychological distress were more likely to have met the guidelines for fruit and vegetable consumption and to report excellent or very good health. By contrast, females who had experienced high or very high levels of psychological distress were more likely to be current smokers and/or to report fair or poor health, while those with very high levels were also more likely to be at long-term risk of alcohol-related harm.

Table 7.5 Psychological distress[a] in females, by selected risk factors 2010

	Low (10-15)			Moderate (16-21)			High (22-29)			Very high (30-50)		
		95% CI			95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
FEMALES	**59.9**	**57.9**	**61.9**	**24.0**	**22.3**	**25.8**	**9.0**	**7.8**	**10.4**	**3.4**	**2.7**	**4.2**
Physical activity [b]												
Sedentary	**43.5**	35.4	51.9	**29.7**	23.1	37.2	**11.8***	6.5	20.5	**7.0***	3.8	12.4
Insufficient time & sessions	**58.3**	54.5	62.0	**24.5**	21.3	28.1	**11.1**	8.7	14.0	**2.5**	1.6	3.8
Sufficient time & sessions	**63.4**	60.7	66.1	**22.6**	20.2	25.1	**8.1**	6.5	10.0	**3.4**	2.5	4.7
Alcohol consumption [c]												
Abstainer	**51.6**	47.0	56.3	**26.8**	22.8	31.3	**9.4**	6.8	12.9	**5.1**	3.5	7.2
Low risk	**62.8**	60.4	65.0	**22.9**	21.0	24.9	**9.0**	7.5	10.6	**2.5**	1.8	3.4
Risky / High risk	**47.3**	39.5	55.2	**27.4**	18.7	38.2	**10.0***	4.9	19.4	**11.6***	6.6	19.7
Met fruit / vegetable guidelines [d]												
Both guidelines	**71.8**	64.0	78.4	**15.5**	12.0	19.7	**10.2***	5.4	18.6	**	**	**
Vegetable guidelines only	**68.3**	61.5	74.4	**18.1**	13.9	23.3	**8.4***	4.8	14.3	**	**	**
Fruit guidelines only	**64.9**	62.1	67.6	**21.8**	19.6	24.2	**7.5**	5.9	9.5	**2.6**	1.8	3.8
Neither	**55.3**	52.3	58.4	**25.8**	23.2	28.6	**10.8**	8.9	13.1	**4.3**	3.2	5.7
Diabetes *(excluding GDM)*												
None	**60.5**	58.5	62.5	**23.7**	21.9	25.5	**8.9**	7.6	10.3	**3.4**	2.7	4.2
Yes	**55.9**	47.7	63.8	**17.7**	13.6	22.8	**7.8**	4.8	12.5	**6.3***	2.0	17.9
Smoking status												
Current smoker	**44.3**	39.8	48.9	**27.7**	23.5	32.3	**15.3**	11.9	19.4	**7.0**	5.1	9.5
Ex-smoker	**61.2**	56.6	65.6	**27.7**	23.6	32.2	**5.9**	4.0	8.6	**3.3***	2.0	5.5
Non-smoker	**62.6**	60.0	65.1	**22.9**	20.8	25.2	**7.9**	6.5	9.7	**2.3**	1.6	3.3
Self-reported health												
Excellent or very good	**70.9**	68.1	73.5	**19.7**	17.4	22.2	**5.7**	4.2	7.7	**1.1***	0.5	2.1
Good	**57.4**	54.0	60.7	**26.8**	24.0	29.7	**9.6**	7.6	12.1	**2.6**	1.6	4.0
Fair or poor	**34.2**	29.7	39.0	**30.3**	25.7	35.4	**16.5**	12.9	20.9	**13.2**	10.1	17.0
Body weight status [e]												
Underweight	**59.8**	49.1	69.7	**20.3**	13.0	30.2	**8.8***	4.1	18.2	**6.5***	3.1	13.2
Normal weight	**61.7**	58.7	64.5	**24.1**	21.6	26.8	**8.5**	6.9	10.5	**2.1**	1.4	3.3
Overweight	**63.1**	58.5	67.5	**23.1**	19.2	27.5	**7.5**	4.8	11.4	**2.9**	2.0	4.4
Obese	**57.3**	52.4	62.1	**22.5**	18.8	26.7	**11.4**	8.6	15.1	**6.4***	3.8	10.4

(a) Based on Kessler 10 Psychological Distress Scale (K10).
(b) Based on National Guidelines (DoHA 1999) and excludes adults aged less than 19 years.
(c) Based on National Guidelines (NHMRC 2001).
(d) Based on National Guidelines (NHMRC 2003).
(e) Determined by calculation of Body Mass Index (BMI).
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Use of mental health services

Sought help, by age and sex

Survey respondents were asked if they had sought help from a medical professional for a mental health problem in the previous 12 months. Table 7.6 shows the proportion of males and females who sought help for a mental health problem in the year prior to the survey, by age and sex.

More than one in 10 persons (11.0 per cent) had sought professional help for a mental health problem in the 12 months preceding the survey. The proportion of females (14.5 per cent) who sought professional help for a mental health problem was higher than the proportion of males (7.5 per cent).

The proportion of persons aged 65 years and over (4.5 per cent) who sought professional help for a mental health problem was lower compared with all ages (11.0 per cent).

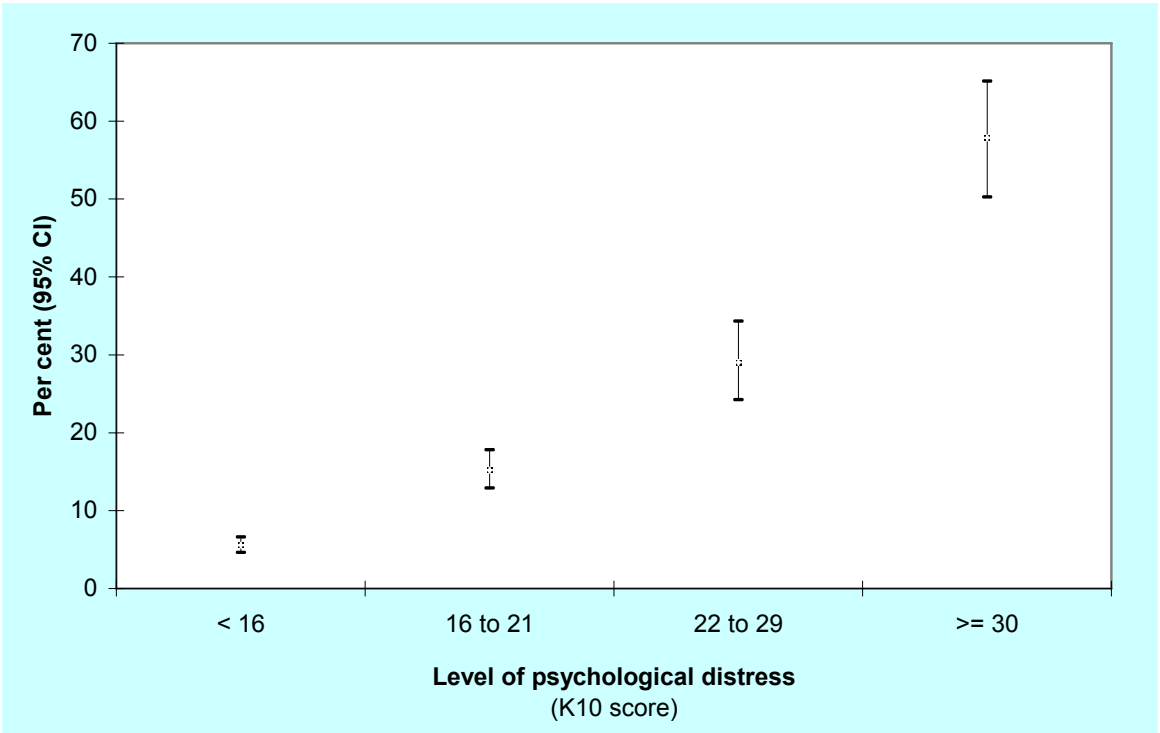
Table 7.6 Proportion of persons who sought professional help for a mental health problem in the past 12 months, by age and sex, 2010

Age group	Males			Females			Persons		
		95% CI			95% CI			95% CI	
(years)	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**	**	**	22.4	16.0	30.4	12.9	9.2	17.7
25-34	9.4	5.9	14.7	18.8	14.6	23.9	14.1	11.2	17.6
35-44	10.7	7.8	14.6	15.8	13.1	19.0	13.3	11.2	15.7
45-54	8.9	6.6	11.8	14.4	11.9	17.2	11.6	9.9	13.6
55-64	6.1	4.3	8.6	10.7	8.6	13.3	8.4	7.0	10.2
65+	3.6	2.3	5.5	5.2	3.9	7.0	4.5	3.5	5.7
Total	**7.5**	**6.2**	**9.0**	**14.5**	**13.0**	**16.1**	**11.0**	**10.0**	**12.1**

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above Victoria / below Victoria.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Figure 7.1 shows that the proportion of persons who sought professional help for a mental health problem increased with increasing levels of psychological distress.

Figure 7.1 Proportion of persons who sought professional help for a mental health problem in the past 12 months, by level of psychological distress, 2010



Estimates were age-standardised to the 2006 Victorian population

Sought help, by Department of Health region

Table 7.7 shows the proportion of males and females who sought professional help for a mental health problem in the past 12 months, by Department of Health region. There were no differences in the proportion of persons who sought help for a mental health problem between the Department of Health regions. However, females in rural (15.1 per cent) and metropolitan (14.3

per cent) areas of the state had higher rates for seeking help for a mental health problem than their male counterparts (7.3 per cent and 7.4 per cent respectively). Females from North & West Metropolitan Region had a higher rate of seeking help for a mental health problem (15.7 per cent) compared with their male counterparts (7.4 per cent).

Table 7.7: Proportion of persons who sought professional help for a mental health problem in the past 12 months, by Department of Health region, 2010

	Males			Females		
		95% CI			95% CI	
	%	LL	UL	%	LL	UL
Eastern Metropolitan	**7.2**	4.6	11.0	**12.3**	9.4	15.9
North & West	**6.7**	4.4	10.0	**14.3**	11.4	17.7
Southern	**9.1**	6.2	13.1	**15.7**	12.5	19.5
All metropolitan regions	**7.4**	**5.9**	**9.3**	**14.3**	**12.5**	**16.3**
Barwon-South West	**6.4**	4.1	9.9	**17.4**	13.4	22.3
Gippsland	**6.3**	4.1	9.6	**12.5**	9.2	16.8
Grampians	**9.6**	6.7	13.7	**11.9**	8.6	16.2
Hume	**9.1**	5.7	14.2	**17.8**	13.5	23.0
Loddon Mallee	**5.9***	3.5	9.7	**14.4**	11.3	18.2
All rural regions	**7.3**	**5.9**	**8.9**	**15.1**	**13.3**	**17.1**
All Victorians	**7.5**	**6.2**	**9.0**	**14.5**	**13.0**	**16.1**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.

Sources of professional help

Respondents who sought professional help for a mental health problem were also asked about the type of health professional consulted. Table 7.8 shows the various sources of professional help sought for a mental health problem in the past 12 months, by sex.

Almost six in 10 (56.3 per cent) persons who sought professional help, consulted a general practitioner, while almost four in 10 (39.6 per cent) consulted a private counsellor or psychologist and 22.0 per cent sought help from a private psychiatrist. There were no significant differences between the sexes, by type of professional help sought.

Table 7.8 Sources of help for persons who sought professional help for a mental health related problem in the past 12 months, by sex, 2010

	Males			Females			Persons		
		95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL
General Practitioner	**54.4**	45.1	63.5	**57.2**	51.3	62.9	**56.3**	51.3	61.2
Private counselling service/psychologist	**38.9**	30.2	48.4	**39.9**	34.4	45.7	**39.6**	34.8	44.5
Private psychiatrist	**27.2**	19.7	36.3	**19.4**	15.1	24.6	**22.0**	18.1	26.6
Other	**6.6***	2.9	14.1	**3.1***	1.6	5.6	**4.2***	2.5	7.0
Public mental health service community service	**1.9***	0.9	3.8	**4.5***	2.5	8.0	**3.6***	2.2	6.0
Community health service	**	**	**	**3.6***	1.8	7.2	**3.0***	1.7	5.5
Public mental health service crisis service	**	**	**	**	**	**	**0.7***	0.3	1.7
Public hospital inpatient service	**	**	**	**	**	**	**0.4***	0.1	1.0
Private hospital emergency department	**	**	**	**	**	**	**	**	**
Private hospital inpatient service	**	**	**	**	**	**	**	**	**
Public hospital emergency department	**	**	**	**	**	**	**	**	**
Public mental health service inpatient service	**0.0**	0.0	0.0	**	**	**	**	**	**

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Trend over time

Table 7.9 shows the proportion of males and females who sought professional help for a mental health related problem in the 12 months preceding the survey, from 2003 to 2010. The proportion of females and persons, but not males, who sought professional help over the 12 months preceding the survey significantly increased between 2003 and 2010.

Table 7.9 Proportion of males and females who sought professional help for a mental health related problem in the past 12 months, 2003-2010.

	MALES			FEMALES			PERSONS		
Year of		95% CI			95% CI			95% CI	
survey	%	LL	UL	%	LL	UL	%	LL	UL
2003	**5.7**	4.8	6.9	**7.6**	6.6	8.6	**6.6**	5.9	7.3
2004	**6.9**	5.7	8.3	**10.5**	9.4	11.7	**8.8**	7.9	9.7
2005	**8.0**	6.7	9.6	**10.8**	9.6	12.2	**9.5**	8.5	10.4
2006	**7.1**	6.0	8.5	**11.6**	10.4	12.9	**9.4**	8.5	10.3
2007	**7.0**	6.0	8.3	**9.9**	8.8	11.1	**8.5**	7.7	9.4
2008	**8.6**	7.9	9.4	**14.1**	13.3	14.8	**11.4**	10.8	11.9
2009	**9.1**	7.8	10.5	**14.5**	13.2	15.9	**11.8**	10.9	12.8
2010	**7.5**	6.2	9.0	**14.5**	13.0	16.1	**11.0**	10.0	12.1

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data were age-standardised to the 2006 Victorian population.
Ordinary least squares regression was used to test for trends over time.

Table 7.10 shows the type of health professional consulted for a mental health problem in the 12 months preceding the survey, between 2005 and 2010. The proportion of males and females who sought help from a general practitioner or psychiatrist for a mental health problem in the 12 months preceding the survey did not change between 2005 and 2010. By contrast, the proportion of females and persons, but not males, who sought help from a psychologist or private counselling service significantly increased between 2005 and 2010.

Table 7.10 Proportion of males and females who sought help from a general practitioner, psychologist or psychiatrist in the past year, for a mental health related problem, by sex, 2005-2010.

	General Practitioner			Psychologist			Psychiatrist		
	%	95% CI		%	95% CI		%	95% CI	
MALES		LL	UL		LL	UL		LL	UL
2005	**46.3**	39.4	53.4	**27.6**	21.0	35.3	**24.3**	18.1	31.7
2006	**52.7**	45.0	60.2	**17.0**	12.3	23.0	**19.3**	14.2	25.8
2007	**50.9**	43.3	58.5	**26.0**	19.9	33.1	**17.5**	12.4	24.0
2008	**58.0**	53.6	62.3	**32.1**	28.3	36.2	**23.5**	19.9	27.4
2009	**59.8**	52.4	66.7	**38.3**	31.4	45.8	**27.6**	21.6	34.6
2010	**54.4**	45.1	63.5	**38.9**	30.2	48.4	**27.2**	19.7	36.3
FEMALES									
2005	**64.3**	59.0	69.3	**27.2**	22.3	32.6	**19.3**	15.0	24.3
2006	**58.6**	53.3	63.7	**24.3**	20.1	29.1	**17.7**	13.7	22.5
2007	**53.8**	48.8	58.8	**28.9**	23.7	34.7	**18.4**	13.9	24.0
2008	**63.8**	61.0	66.5	**37.0**	34.4	39.7	**16.4**	14.3	18.7
2009	**60.9**	56.1	65.5	**44.1**	39.5	48.9	**15.3**	12.1	19.0
2010	**57.2**	51.3	62.9	**39.9**	34.4	45.7	**19.4**	15.1	24.6
PERSONS									
2005	**55.0**	50.3	59.7	**28.6**	24.2	33.5	**22.2**	18.3	26.7
2006	**58.0**	53.5	62.4	**22.6**	19.0	26.7	**18.0**	14.8	21.8
2007	**53.8**	49.0	58.6	**27.7**	23.7	32.1	**17.8**	14.3	21.9
2008	**61.6**	59.2	63.9	**35.2**	33.0	37.4	**19.2**	17.2	21.4
2009	**59.7**	55.5	63.8	**42.1**	38.1	46.2	**19.4**	16.4	22.9
2010	**56.3**	51.3	61.2	**39.6**	34.8	44.5	**22.0**	18.1	26.6

Calculated as a proportion of those who sought help for a mental health problem.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data were age-standardised to the 2006 Victorian population.
Ordinary least squares regression was used to test for trends over time.

Depression and/or anxiety

Depression and/or anxiety, by age and sex

Survey respondents were asked whether they had ever been diagnosed by a doctor with depression and/or anxiety. This is referred to as 'life-time' prevalence. Table 7.11 shows the life-time prevalence of depression and/or anxiety, by age and sex. More than one in five (20.1 per cent) persons had ever been diagnosed by a doctor with depression and/or anxiety. Females (26.8 per cent) were twice as likely to report doctor-diagnosed depression and/or anxiety compared with their male counterparts (13.3 per cent). Females (19.0 per cent) and persons (15.9 per cent), but not males, aged 65 years and over, were less likely to have ever been diagnosed with depression and/or anxiety compared with all ages (26.8 and 20.1 per cent, respectively).

Table 7.11 Life-time prevalence of doctor-diagnosed depression and/or anxiety, by age and sex, 2010

	Males			Females			Persons		
Age group		95% CI			95% CI			95% CI	
(years)	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**6.1***	2.7	13.1	**25.3**	18.6	33.4	**15.4**	11.4	20.5
25-34	**15.1**	10.6	21.1	**28.1**	23.1	33.7	**21.6**	18.0	25.6
35-44	**14.1**	10.8	18.1	**29.6**	26.0	33.3	**21.9**	19.4	24.7
45-54	**16.9**	13.8	20.6	**27.7**	24.4	31.2	**22.4**	20.0	24.9
55-64	**14.5**	11.5	18.1	**29.7**	26.3	33.4	**22.2**	19.9	24.8
65+	**12.1**	9.6	15.1	**19.0**	16.5	21.8	**15.9**	14.1	17.9
Total	**13.3**	**11.7**	**15.0**	**26.8**	**25.0**	**28.7**	**20.1**	**18.9**	**21.4**

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above Victoria / below Victoria
*Estimate has a relative standard error of between 25 and 50 per cent and should be interpreted with caution.

Depression and/or anxiety, by Department of Health region

Table 7.12 shows the life-time prevalence of depression and/or anxiety in males and females by Department of Health region. There were no significant regional differences in either males or females in the life-time prevalence of depression and/or anxiety.

Table 7.12 Life-time prevalence of doctor-diagnosed depression and/or anxiety in males and females, by Department of Health region, 2010

	Males			Females		
		95% CI			95% CI	
	%	LL	UL	%	LL	UL
Eastern Metropolitan	**9.1**	6.4	12.7	**23.6**	19.9	27.7
North & West Metropolitan	**12.8**	9.9	16.3	**28.1**	24.5	32.1
Southern Metropolitan	**15.5**	11.8	20.2	**26.9**	23.0	31.2
All metropolitan regions	**12.7**	10.8	14.9	**26.5**	24.3	28.9
Barwon-South Western	**13.0**	9.7	17.2	**30.6**	25.8	35.8
Gippsland	**12.1**	8.9	16.3	**25.6**	21.4	30.3
Grampians	**17.1**	12.8	22.4	**25.1**	20.6	30.1
Hume	**17.6**	13.1	23.3	**28.7**	23.9	34.1
Loddon Mallee	**14.4**	10.7	19.1	**28.1**	24.0	32.5
All rural regions	**14.8**	12.9	17.0	**28.0**	25.9	30.2
All Victorians	**13.3**	**11.7**	**15.0**	**26.8**	**25.0**	**28.7**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.

Trend over time

Table 7.13 shows the life-time prevalence of depression and/or anxiety in males and females, from 2003 to 2010. The life-time prevalence of doctor-diagnosed depression and/or anxiety in females and persons, but not males, significantly increased between 2003 to 2010.

Table 7.13 Life-time prevalence of doctor-diagnosed depression and/or anxiety, 2003-2010.

	MALES			FEMALES			PERSONS		
		95% CI			95% CI			95% CI	
	%	LL	UL	%	LL	UL	%	LL	UL
2003	**10.9**	9.6	12.4	**18.7**	17.2	20.2	**14.9**	13.9	15.9
2004	**13.9**	12.3	15.6	**23.5**	22.0	25.1	**18.8**	17.7	20.0
2005	**13.4**	11.8	15.1	**22.3**	20.7	24.0	**17.9**	16.8	19.1
2006	**13.8**	12.1	15.6	**22.3**	20.8	23.9	**18.0**	16.9	19.3
2007	**13.1**	11.6	14.6	**22.5**	20.9	24.1	**17.9**	16.8	19.0
2008	**15.0**	14.1	16.0	**24.5**	23.6	25.4	**19.9**	19.2	20.5
2009	**16.7**	15.1	18.5	**25.4**	23.8	27.0	**21.1**	20.0	22.3
2010	**13.3**	11.7	15.0	**26.8**	25.0	28.7	**20.1**	18.9	21.4

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares regression was used to test for trends over time.

Depression and/or anxiety, by selected risk factors

Table 7.14 shows the prevalence of doctor-diagnosed depression and/or anxiety, by selected risk factors. Males and females who had ever been diagnosed with depression and/or anxiety were more likely to report fair or poor health. However females were also more likely to be at long-term risk of alcohol-related harm, to be current smokers, and/or to be obese.

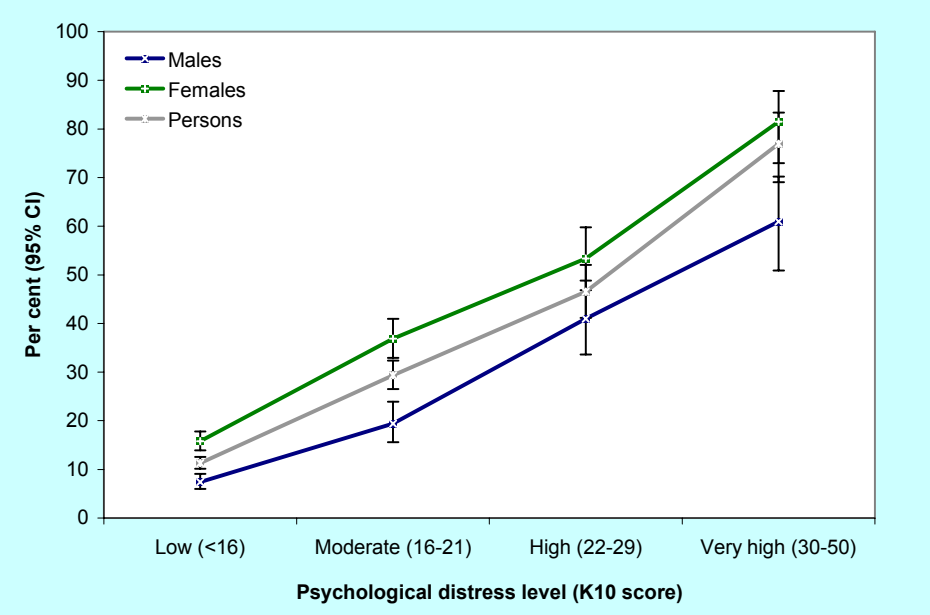
Table 7.13 Life-time prevalence of doctor-diagnosed depression, by selected risk factors, 2010

	Males			Females		
		95% CI			95% CI	
	%	LL	UL	%	LL	UL
Total	**13.3**	**11.7**	**15.0**	**26.8**	**25.0**	**28.7**
Physical activity [(a)]						
Sedentary	**12.7***	7.6	20.5	**26.2**	18.7	35.3
Insufficient time & sessions	**14.2**	11.3	17.7	**27.5**	24.3	30.9
Sufficient time & sessions	**12.6**	10.7	14.7	**26.3**	24.0	28.8
Alcohol consumption [(b)]						
Abstainer	**12.8**	9.4	17.1	**24.0**	20.5	27.9
Low risk	**13.2**	11.5	15.1	**26.8**	24.8	29.0
Risky / High risk	**11.1***	5.9	20.1	**48.1**	39.0	57.4
Met fruit / vegetable guidelines [(c)]						
Both guidelines	**15.1**	9.5	23.3	**16.9**	12.6	22.3
Vegetable guidelines only	**16.8**	11.1	24.6	**21.3**	15.7	28.2
Fruit guidelines only	**11.8**	9.7	14.2	**23.7**	21.4	26.2
Neither	**14.2**	12.0	16.7	**29.9**	27.1	32.8
Diabetes *(excluding GDM)*						
No	**13.1**	11.5	14.9	**26.6**	24.8	28.5
Yes	**10.1**	7.1	14.2	**25.5**	17.2	36.2
Smoking status						
Current smoker	**17.6**	13.7	22.2	**39.2**	34.6	44.0
Ex-smoker	**14.2**	11.7	17.1	**30.8**	26.7	35.3
Non-smoker	**10.4**	8.5	12.8	**21.5**	19.5	23.6
Self-reported health						
Excellent or very good	**9.6**	7.8	11.9	**20.9**	18.5	23.5
Good	**14.0**	11.3	17.3	**28.2**	25.3	31.2
Fair or poor	**21.6**	17.3	26.7	**41.9**	36.9	47.0
Body weight status [(d)]						
Underweight	**	**	**	**26.1**	17.2	37.5
Normal weight	**12.4**	9.9	15.5	**23.9**	21.4	26.6
Overweight	**14.1**	11.5	17.1	**25.2**	21.9	28.7
Obese	**14.2**	11.0	18.2	**38.8**	34.1	43.7

(a) Based on National Guidelines (DoHA 1999) and excludes adults aged less than 19 years.
(b) Based on National Guidelines (NHMRC 2001).
(c) Based on National Guidelines (NHMRC 2003).
(d) Determined by calculation of Body Mass Index (BMI).
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
**Estimate has a relative standard error of greater than 50 per cent and is not reported as it is unreliable for general use.

Psychological distress puts an individual at risk of depression and/or anxiety and figure 7.2 shows that the prevalence of depression and/or anxiety increased with increasing K10 scores, in both males and females.

Figure 7.2: Prevalence of doctor-diagnosed depression and/or anxiety, by psychological distress level, 2010



Estimates were age-standardised to the 2006 Victorian population.

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8 Connections with others

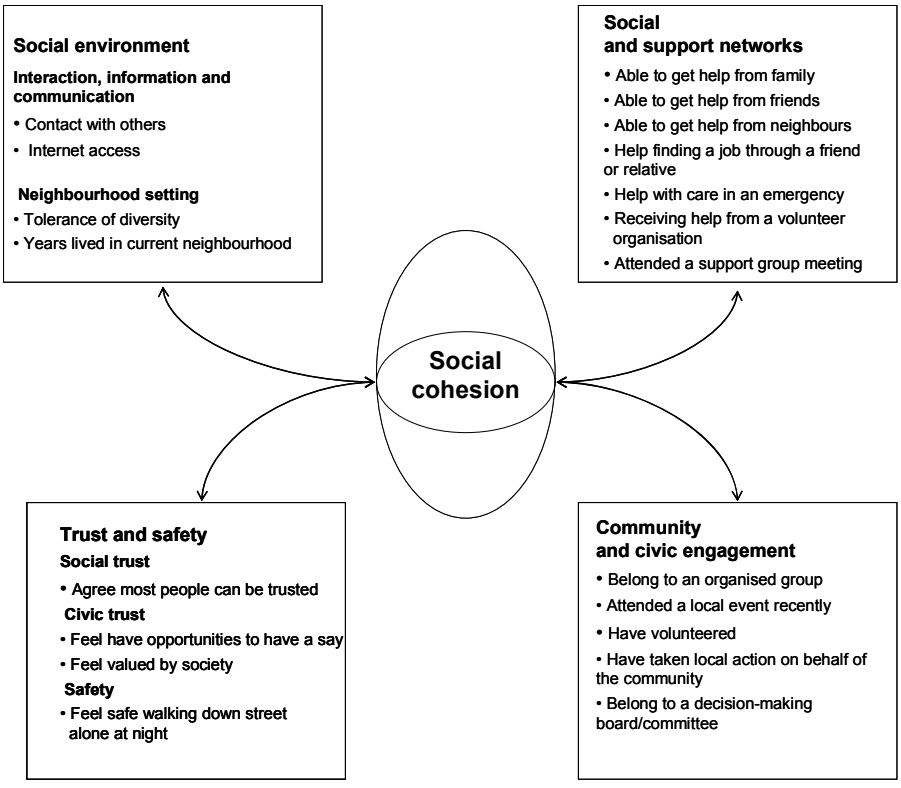
The Victorian Population Health Survey includes questions on social support and community connections and participation. The makeup of questions has evolved since the first survey in 2001, but a core set of questions on social and community characteristics has been retained and is reported annually.

The 2010 survey continued to collect information on informal social contacts (friends, family and neighbours) and membership or involvement with broader organisations such as sporting clubs, professional associations and community groups. It also collected data on other indicators of social cohesion. This section describes survey findings under headings that describe some key enabling and reinforcing factors for social cohesion.

Social cohesion

Social health—defined as the ability to develop, maintain and nurture major social relationships—is an important dimension of health. It is defined at the level of the individual. At a societal level, the corresponding concept is social cohesion, which focuses on interrelatedness and unity among individuals, groups and associations within society. Unity is established and maintained through social relationships based on trust, shared values, feelings of inclusion and belonging, and expectations of reciprocity. The 2010 survey data on social and community characteristics are organised under the umbrella of social cohesion.

Figure 8.1 Selected indicators of social cohesion



Source: Adapted from AIHW 2007, Figure 8.9, p. 390.

Survey results

Interaction, information and communication

Contact with others

- More than half (50.5 per cent) of all Victorians, aged 18 years and over, had spoken with 10 or more persons on the day prior to taking the survey.
- Few Victorians (2.1 per cent) reported that they had not spoken to anyone on the day prior to taking the survey.
- Older persons had spoken with fewer persons on the previous day compared with younger persons. About one-third of persons (33.1 per cent) aged 65 years and over had spoken with 10 or more people the previous day, compared with almost six in 10 (61.6 per cent) persons aged 18–24 years.
- There were few regional differences between those who resided in the rural compared with the metropolitan regions in the number of persons spoken with on the day prior to taking the survey.
- There were no significant changes between 2005 and 2010 in the number of persons spoken with on the previous day, for either males or females.

Neighbourhood setting

Years lived in current neighbourhood

- Almost half (49.6 per cent) of the Victorian population aged 18 years and over had been resident in their neighbourhood or local area for more than 10 years.
- The proportion of persons who had lived in their current neighbourhood for more than 10 years increased with increasing age (except for persons aged 18–24 years), rising from about one in six (18.1 per cent) of those aged 25–34 years to about three in four (77.2 per cent) of those aged 65 years and over.
- There were few regional differences in neighbourhood tenure, with similar proportions of persons from metropolitan and rural regions having lived in their neighbourhood for more than 10 years.

Tolerance of diversity

- Just under half (49.4 per cent) of persons thought multiculturalism definitely made life in their area better, and a further 25.8 per cent thought it made life in their area better 'sometimes'.
- More than one in 10 persons (11.2 per cent) thought that multiculturalism did not, or did not often, make life better in their area, while 7.8 per cent thought that the concept of multiculturalism was not applicable to their area.
- Males (8.1 per cent) were significantly more likely to be intolerant of diversity than females (5.4 per cent).
- Persons aged 65 years and older (9.6 per cent) were significantly more likely to be intolerant of diversity compared with all ages (6.7 per cent).
- Males (51.7 per cent) and females (53.0 per cent) who resided in the metropolitan regions were significantly more likely to think that multiculturalism made life in their area better compared with those in the rural regions (39.3 and 41.9 per cent, respectively). However, this could be due, at least in part, to a greater proportion of males (15.1 per cent) and females (16.4 per cent) in the rural regions reporting that the question was not applicable to them, compared with those in the metropolitan regions (4.4 and 5.2 per cent, respectively).

Social and support networks

Ability to get help from family, friends and neighbours

- Almost eight in 10 (81.7 per cent) persons reported that they could definitely get help from family if needed (Table 8.9), and a further 11.1 per cent felt they could 'sometimes' get help.
- There were no significant differences between the sexes, with the exception that males aged 35 to 55 years (79.7 per cent) were more likely to be able to get help from family, compared with their females counterparts (71.4 per cent).
- Females aged 35 to 44 years were significantly less likely to be able to get help from family (71.4 per cent) compared with all ages (81.0 per cent).
- There were no regional differences in the proportion of males or females who could or could not get help from family when needed.
- Almost eight in 10 (81.1 per cent) persons reported that they could definitely get help from friends if needed (Table 8.10), and a further 13.7 per cent felt they could 'sometimes' get help.
- There were no significant differences between the sexes, with the exception that males aged 45 to 54 years (76.9 per cent) were less likely to be able to get help from friends, compared with their females counterparts (85.4 per cent).
- Females aged 65 years and over were significantly more likely not to be able to get help from friends (5.3 per cent) compared with all ages (2.6 per cent).
- While there were few regional differences, a higher proportion of males from Eastern Metropolitan Region (86.6 per cent) reported being able to get help from friends compared with all Victorian males (80.2 per cent). By contrast, a lower proportion of females from North and West Metropolitan Region (77.1 per cent) reported being able to get help from friends when needed, compared with all Victorian females (82.0 per cent).
- Slightly less than half (49.9 per cent) of persons reported that they could definitely get help from neighbours if needed, and a further 24.2 per cent of persons felt they could 'sometimes' get help.
- Being able to get help from neighbours was related to age, with a higher proportion of males and females aged 55 years and over reporting that they were able to get help from neighbours when needed.
- There were strong regional differences in the proportion of males and females who reported being able to get help from neighbours when needed with those in the rural regions being far more likely to be able to get help compared with their metropolitan counterparts.

Help in emergencies

- Most males (90.0 per cent) and females (92.2 per cent) reported that they had a relative or friend, not living with them, who would care for them or their children in an emergency.
- Females (88.5 per cent) and persons (88.4 per cent), aged 65 years and over, were less likely to have a friend or relative who could care for them in an emergency, compared with all ages (92.2 and 91.1 per cent, respectively).
- Males, but not females, living in the rural regions (93.4 per cent) were more likely than those from the metropolitan regions (88.8 per cent) to have a relative or friend who would care for them (or their children) in an emergency.
- The proportion of males and females who could get emergency care for themselves or their children from family or friends remained unchanged between 2003 and 2010.

Help finding a job

- More males (59.3 per cent) than females (49.9 per cent) reported that they could get a job through a relative or friend if needed but this help declined with age.

- There were no regional differences, with the exception that males from Loddon Mallee Region (68.6 per cent) were more likely to be able to get a job through a relative or friend, compared with all Victorian males (59.3 per cent).
- The proportion of males and females who could or could not get a job if needed through a relative or friend remained unchanged between 2003 and 2010.

Receiving help from a volunteer organisation

- One in 20 persons (5.0 per cent) had received help from a volunteer organisation.
- There were no regional differences in males and females in the proportion of persons who reported that they had received help from volunteer organisations.
- The proportion of males and females who reported that they had received help from volunteer organisations remained unchanged between 2003 and 2010.

Support groups

- One in 10 persons (9.2 per cent) reported they had attended a support group meeting in the preceding two years.
- Females were no more likely (10.0 per cent) than males (8.4 per cent) to have attended a support group meeting recently.
- The proportion of persons who had attended a support group meeting within the preceding two years did not differ by age group.
- A higher proportion of females living in rural areas (12.7 per cent) reported they had attended a support group meeting in the preceding two years, compared with those living in the metropolitan areas (8.9 per cent).
- The proportion of males and females who had or had not attended a support group meeting over the previous two years remained unchanged between 2003 and 2010.

Trust and safety

Feelings of trust

- More than one-third (35.1 per cent) of persons aged 18 years and over agreed that most people can 'definitely' be trusted, while a further four in 10 persons (42.2 per cent) agreed that 'sometimes' most people can be trusted.
- A higher proportion of males (37.8 per cent) compared with females (32.6 per cent) agreed that most people can 'definitely' be trusted.
- A higher proportion of older males and females aged 55 years and over agreed that most people can 'definitely' be trusted, compared with those aged 18 to 34 years.
- A higher proportion of males living in the rural regions (44.4 per cent) agreed that most people can 'definitely' be trusted compared with males living in the metropolitan regions (35.5 per cent). By contrast, there were no regional differences for females.
- There was a higher proportion of males from Barwon-South Western Region and a lower proportion of males from North and West Metropolitan Region who agreed that most people can 'definitely' be trusted, compared with all Victoria males.
- The proportion of males and females who did or did not agree that most people could be trusted remained unchanged between 2005 and 2010.

Opportunities to have a say

- Almost four in 10 persons (42.3 per cent) felt they 'definitely' had opportunities to have a real say on issues that were important to them, while a further 30.2 per cent felt that 'sometimes' there were opportunities to have a say.
- More than one in 10 persons (13.4 per cent) felt they did not, at all, feel they had opportunities to have a real say on issues that were important to them.
- There were no differences between the sexes.

- Males and persons aged 25 to 34 years were least likely, while those aged 55 to 64 years were most likely to feel that they 'definitely' had opportunities to have a real say, compared with all ages.
- No significant rural and metropolitan differences by sex were identified. However, respondents in Gippsland Region reported greater opportunities to have a say on issues they considered to be important compared to the Victorian average (51.9 per cent).

Feeling valued by society

- More than half of all persons (52.0 per cent) 'definitely' felt valued by society, while a further 30.1 per cent felt they were valued by society 'sometimes'.
- About one in eight persons (12.2 per cent) felt that they were not or not often valued by society.
- There were no differences between the sexes.
- There were few differences by age, with the notable exception that males (12.5 per cent) and persons (11.0 per cent) aged 65 years and over were more likely to report not feeling valued by society at all, compared with all ages (7.6 per cent).
- There were no differences in males or females who resided in the rural compared to metropolitan regions, with the exception that females from Gippsland Region (3.8 per cent) were less likely to have felt that they were not valued at all by society, compared with all Victorian females (7.0 per cent),

Feelings of safety

- Almost six in 10 persons (56.9 per cent) reported that they 'definitely' felt safe walking down their street alone after dark, while a further 16.6 per cent of persons reported that they 'sometimes' felt safe.
- Approximately one in four persons (23.1 per cent) reported that they did not or did not often feel safe walking down their street alone after dark.
- There was a difference between the sexes, with females (23.4 per cent) being significantly more likely to report not feeling safe walking down their street alone after dark, compared with males (8.8 per cent).
- Feelings of safety were also related to age with a higher proportion of males (18.3 per cent) and females (43.5 per cent) aged 65 years or over reporting that they did not feel safe at all walking alone down their street after dark, compared with all ages (8.8 and 23.4 per cent, respectively).
- There were significant differences between the rural and metropolitan regions of Victoria, where males (77.7 per cent) and females (47.6 per cent) who lived in the rural regions were more likely to report 'definitely' feeling safe walking down their street alone after dark, compared with all Victorians (71.5 and 43.1 per cent, respectively).
- A higher proportion of males and females living in rural areas (77.7 per cent and 47.6 per cent respectively) felt safe walking down their street alone after dark, compared with males and females living in the metropolitan areas (69.3 per cent and 41.4 per cent respectively).
- The proportion of males and females who did not feel safe walking down their street alone after dark remained unchanged between 2005 and 2010.
- The proportion of males, but not females or all persons, who reported that they 'definitely' felt safe walking down their street alone after dark significantly decreased between 2005 and 2010.

Community and civic engagement

Membership of an organised group

- More than one in four persons (27.2 per cent) was a member of a sports group, over one in five (20.4 per cent) was a member of a professional group or academic society, almost

one in six (15.9 per cent) belonged to a church group and more than one in 10 (11.5 per cent) was a member of a school group. Almost one in five persons (17.5 per cent) was a member of a community or other action group.
- Males (33.8 per cent) were significantly more likely to be members of a sports group compared with females (20.7 per cent).
- Membership of a sports group declined with age, with persons aged 18 to 24 years being more likely to belong to a sports group, while those aged 55 and over were least likely.
- There was no difference between the sexes in the proportion of males or females who belonged to a church group.
- There was a higher proportion of males (26.2 per cent) and females (27.0 per cent) aged 65 years and over who attended a church group, compared with all ages (15.1 and 16.5 per cent, respectively).
- A higher proportion of females (14.8 per cent) compared with males (8.0 cent) belonged to a school group.
- Males (13.0 per cent) and females (33.3 per cent) aged 35 to 44 years were more likely than any other age group to belong to a school group.
- There were no differences between the sexes in the proportion of males and females who belonged to a professional, community or other action group.
- The highest proportion of persons who belonged to a professional group was aged 35 to 44 years (24.9 per cent).
- Membership of a community or other action group increased with age, with persons aged 55 to 64 years (23.0 percent) and 65 years and over (31.0 per cent) being more likely to be members compared with all ages (17.5 per cent).
- Males (40.6 per cent) and females (26.7 per cent) from the rural regions of Victoria were more likely to belong to a sports group compared with males (31.5 per cent) and females (18.8 per cent) from the metropolitan regions.
- There were no regional differences in males or females in the membership of church or school groups.
- Males from the rural regions were more likely to be members of other community or action groups compared with all Victorian males.
- The proportion of all persons who were members of a sports group significantly declined between 2003 and 2010.
- The proportion of females and all persons, but not males, who were members of a church group significantly declined between 2003 and 2010.
- The proportion of males and females who were members of a school group significantly declined between 2003 and 2010.
- The proportion of males and females who were members of a community or other action group significantly declined between 2003 and 2010.

Attendance at a local event

- More than half of males (54.4 per cent) and females (54.4 per cent) had attended a community event in the preceding six months.
- Males and females aged 35 to 44 years were more likely to have attended a community event in the preceding six months, while those aged 65 years and over were least likely, compared to all ages.
- A higher proportion of males and females who resided in the Department of Health rural regions, with the exception of males in the Grampians region, had attended a community event in the previous six months compared with males and females who resided in the metropolitan regions.
- A lower proportion of males and females from North and West Metropolitan Region had attended a community event in the previous six months, compared with all Victorian males and females.
- The proportion of males and females who had attended a local community event in the past six months remained unchanged between 2003 and 2010.

Volunteering

- More than one-fifth (22.0 per cent) of persons reported they had definitely helped out a local group as a volunteer, and a further 10.1 per cent sometimes did so.
- Within each age group and overall, males and females were similarly disposed to volunteer.
- Males and females who resided in rural Victoria were significantly more likely to have volunteered than their metropolitan counterparts.
- The proportion of all persons who had volunteered significantly declined between 2005 and 2010.

Undertaking local action on behalf of the community

- Less than half of all males (42.6 per cent) and females (38.9 per cent) who were members of a sports, church, school, professional or other community or action group reported having taken local action on behalf of the community within the past two years.
- There were no differences between the sexes or by age.
- Males and females who resided in the rural regions who were members of a sports, church, school, professional or other community or action group were more likely than their metropolitan counterparts to have taken local action on behalf of the community within the past two years.

Interaction, information and communication

Communication is central to developing and maintaining social ties, sharing knowledge and information and staying in touch with events. There are many ways to stay in touch, apart from meeting face to face or speaking on the telephone. Computer and internet technology is increasingly being used as a means of finding information and of becoming, and staying informed.

Contact with others

The 2010 survey collected information on the number of persons with whom a respondent spoke, either face to face or on the telephone, on the day before they were interviewed. The number of contacts on an average day does not necessarily reflect social isolation or detachment, but a lack of social contact may imply some vulnerability from not being in touch with people or events.

Table 8.1 provides data on the number of persons with whom an individual spoke the previous day, by age and sex. Persons in older age groups, particularly older females, spoke with fewer persons on the previous day than did those in younger age groups. About one-third of persons (33.1 per cent) aged 65 years and over had spoken with 10 or more people the previous day, compared with almost six in ten (61.6 per cent) persons aged 18–24 years. Among persons aged 65 years and over, a similar proportion of females and males (32.7 per cent and 27.5 per cent respectively) had spoken to fewer than five people the previous day.

Table 8.1 Number of persons spoken with on the previous day, by age and sex, 2010

Age group	None at all			Less than 5			5 to 9			10 or more		
(years)		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
18-24	**	**	**	**11.8***	6.6	20.4	**24.7**	17.2	34.1	**61.1**	51.0	70.3
25-34	**	**	**	**13.9**	9.5	20.0	**29.0**	22.7	36.1	**55.5**	48.1	62.7
35-44	**4.0***	2.3	7.0	**14.5**	11.1	18.8	**23.6**	19.4	28.4	**57.4**	52.0	62.6
45-54	**2.1***	1.1	4.1	**19.6**	16.1	23.6	**22.8**	19.2	26.8	**55.1**	50.5	59.6
55-64	**1.4***	0.7	2.8	**23.9**	20.0	28.3	**28.3**	24.2	32.9	**46.2**	41.4	51.0
65+	**3.0**	1.8	4.8	**27.5**	23.8	31.4	**31.8**	28.1	35.8	**37.1**	33.2	41.2
All males	**2.3**	**1.7**	**3.2**	**18.6**	**16.7**	**20.5**	**26.7**	**24.6**	**29.0**	**52.0**	**49.4**	**54.5**
FEMALES												
18-24	**	**	**	**11.3**	7.1	17.3	**25.2**	18.3	33.7	**62.1**	53.3	70.1
25-34	**2.4***	1.1	5.1	**15.9**	12.0	20.9	**28.8**	23.7	34.4	**52.7**	46.7	58.6
35-44	**1.1***	0.5	2.4	**15.9**	13.2	19.1	**29.2**	25.7	32.9	**53.8**	49.8	57.7
45-54	**1.0***	0.5	2.1	**17.6**	14.8	20.7	**26.9**	23.6	30.5	**54.4**	50.6	58.2
55-64	**2.5***	1.5	4.1	**21.2**	18.2	24.6	**32.8**	29.3	36.5	**43.0**	39.3	46.9
65+	**3.3**	2.2	4.8	**32.7**	29.6	35.9	**33.7**	30.6	36.9	**29.7**	26.8	32.9
All females	**2.0**	**1.4**	**2.7**	**19.3**	**17.8**	**20.8**	**29.4**	**27.5**	**31.2**	**49.2**	**47.2**	**51.2**
PERSONS												
18-24	**	**	**	**11.5**	7.9	16.5	**25.0**	19.7	31.1	**61.6**	54.9	67.8
25-34	**2.0***	1.0	3.9	**14.9**	11.8	18.7	**28.9**	24.8	33.4	**54.1**	49.4	58.8
35-44	**2.5**	1.6	4.1	**15.2**	13.0	17.8	**26.4**	23.6	29.4	**55.6**	52.2	58.8
45-54	**1.6***	0.9	2.6	**18.6**	16.3	21.0	**24.9**	22.4	27.5	**54.7**	51.8	57.7
55-64	**2.0**	1.3	3.0	**22.5**	20.0	25.3	**30.6**	27.8	33.5	**44.6**	41.6	47.7
65+	**3.1**	2.3	4.2	**30.3**	27.9	32.8	**32.8**	30.4	35.3	**33.1**	30.6	35.6
All persons	**2.1**	**1.7**	**2.7**	**19.0**	**17.8**	**20.2**	**28.1**	**26.6**	**29.5**	**50.5**	**48.9**	**52.1**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Table 8.2 shows the number of persons with whom an individual spoke the previous day, by sex and Department of Health region. About half of all persons (52.0 and 49.2 per cent of males and females respectively) had spoken to 10 or more persons the previous day. There were no regional differences in the number of persons with whom an individual spoke the previous day, with the exception that males from Barwon-South Western Region (13.1 per cent) were less likely to have spoken with less than 5 persons on the previous day compared with all Victorian males (18.6 per cent).

Table 8.2 Number of persons spoken with on the previous day, by Department of Health region and sex, 2010

	None at all			Less than 5			5 to 9			10 or more		
		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
Eastern Metropolitan	**1.8***	0.9	3.5	**17.1**	13.3	21.7	**27.9**	22.8	33.6	**52.8**	46.8	58.7
North & West Metropolitan	**2.3***	1.2	4.2	**20.0**	16.5	24.1	**28.2**	23.7	33.1	**49.1**	44.0	54.2
Southern Metropolitan	**3.7***	2.0	6.8	**20.3**	16.2	25.1	**22.9**	18.6	27.8	**52.9**	47.3	58.4
All metropolitan males	**2.6**	1.8	3.8	**19.6**	17.3	22.2	**26.2**	23.5	29.1	**51.1**	48.0	54.3
Barwon-South Western	**0.9***	0.4	2.0	**13.1**	10.2	16.6	**28.6**	23.2	34.6	**57.3**	51.3	63.1
Gippsland	**3.4***	1.5	7.4	**13.9**	10.3	18.4	**28.6**	23.3	34.5	**54.2**	47.9	60.4
Grampians	**1.2***	0.5	2.6	**20.4**	15.8	26.0	**28.1**	22.8	34.2	**50.1**	43.6	56.5
Hume	**1.4***	0.7	3.0	**16.0**	11.6	21.8	**31.7**	25.3	38.9	**50.2**	43.6	56.9
Loddon Mallee	**0.6***	0.2	1.6	**14.1**	10.6	18.5	**26.0**	20.7	32.1	**58.4**	52.1	64.4
All rural males	**1.4**	0.9	2.2	**15.5**	13.6	17.6	**28.3**	25.5	31.2	**54.4**	51.3	57.5
All Victorian males	**2.3**	**1.7**	**3.2**	**18.6**	**16.7**	**20.5**	**26.7**	**24.6**	**29.0**	**52.0**	**49.4**	**54.5**
FEMALES												
Eastern Metropolitan	**2.4***	1.4	4.4	**18.7**	15.4	22.6	**28.2**	24.2	32.6	**50.5**	45.8	55.2
North & West Metropolitan	**1.8***	1.0	3.5	**22.1**	19.1	25.5	**28.7**	25.1	32.6	**47.0**	42.9	51.2
Southern Metropolitan	**2.4***	1.4	4.2	**16.8**	14.1	19.9	**30.5**	26.4	34.9	**50.2**	45.7	54.6
All metropolitan females	**2.2**	1.5	3.1	**19.5**	17.7	21.5	**29.1**	26.8	31.5	**49.1**	46.5	51.6
Barwon-South Western	**1.5***	0.8	3.1	**21.1**	17.1	25.8	**27.8**	24.1	31.8	**49.4**	44.3	54.6
Gippsland	**	**	**	**18.5**	14.9	22.7	**31.1**	26.5	36.1	**48.3**	43.1	53.6
Grampians	**0.8***	0.4	1.7	**16.5**	13.0	20.6	**29.6**	24.9	34.9	**51.9**	46.6	57.2
Hume	**1.2***	0.6	2.3	**19.2**	15.2	24.1	**32.4**	27.4	37.8	**46.9**	41.4	52.5
Loddon Mallee	**1.6***	0.8	3.2	**18.7**	15.4	22.5	**28.2**	24.4	32.4	**51.5**	46.9	56.1
All rural females	**1.3**	0.9	2.0	**18.7**	17.0	20.6	**30.2**	28.1	32.4	**49.4**	47.0	51.8
All Victorian females	**2.0**	**1.4**	**2.7**	**19.3**	**17.8**	**20.8**	**29.4**	**27.5**	**31.2**	**49.2**	**47.2**	**51.2**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Table 8.3 shows the trend over time of the number of persons spoken with on the previous day, between 2005 and 2010.
There were no significant changes between 2005 and 2010 in the number of persons spoken with on the previous day, for either males or females.

Table 8.3 Proportion of Victorians by number of persons spoken with on previous day, 2005-2010

	None			Less than 5			5 to 9			10 or more		
		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
2005	**2.3**	1.7	3.2	**17.7**	16.0	19.6	**27.9**	25.7	30.2	**51.9**	49.5	54.3
2006	**2.6**	1.9	3.6	**17.6**	15.8	19.5	**25.5**	23.4	27.7	**54.2**	51.7	56.7
2007	**1.3**	0.9	1.8	**16.5**	14.8	18.3	**25.2**	23.1	27.4	**56.6**	54.1	59.0
2008	**2.6**	2.2	3.1	**19.0**	18.0	20.0	**25.8**	24.7	27.0	**52.2**	50.9	53.6
2009	**1.8**	1.3	2.5	**18.3**	16.6	20.1	**26.7**	24.7	28.8	**53.1**	50.8	55.4
2010	**2.3**	1.7	3.2	**18.6**	16.7	20.5	**26.7**	24.6	29.0	**52.0**	49.4	54.5
FEMALES												
2005	**2.0**	1.5	2.7	**18.9**	17.5	20.3	**28.5**	26.8	30.3	**50.5**	48.6	52.5
2006	**2.1**	1.6	2.8	**19.2**	17.8	20.7	**29.1**	27.3	30.9	**49.4**	47.4	51.3
2007	**1.8**	1.4	2.4	**19.0**	17.6	20.5	**30.8**	28.9	32.7	**48.3**	46.3	50.3
2008	**2.2**	1.9	2.5	**19.8**	19.0	20.7	**30.1**	29.1	31.1	**47.6**	46.6	48.7
2009	**2.0**	1.5	2.7	**20.2**	18.7	21.7	**27.9**	26.3	29.6	**49.7**	47.8	51.5
2010	**2.0**	1.4	2.7	**19.3**	17.8	20.8	**29.4**	27.5	31.2	**49.2**	47.2	51.2
PERSONS												
2005	**2.1**	1.7	2.7	**18.3**	17.2	19.4	**28.2**	26.8	29.7	**51.2**	49.7	52.8
2006	**2.4**	1.9	2.9	**18.5**	17.4	19.8	**27.3**	25.9	28.8	**51.6**	50.0	53.2
2007	**1.5**	1.2	1.9	**17.8**	16.7	19.0	**28.0**	26.6	29.4	**52.3**	50.8	53.9
2008	**2.4**	2.1	2.7	**19.5**	18.8	20.1	**28.0**	27.2	28.8	**49.9**	49.0	50.7
2009	**1.9**	1.5	2.4	**19.2**	18.1	20.4	**27.3**	26.0	28.6	**51.4**	49.9	52.9
2010	**2.1**	1.7	2.7	**19.0**	17.8	20.2	**28.1**	26.6	29.5	**50.5**	48.9	52.1

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data were age-standardised to the 2006 Victorian population.
Ordinary least squares linear regression was used to test for trends over time.

Neighbourhood setting

Years lived in current neighbourhood

Neighbourhoods and local areas are an important unit in society. One indicator of the stability of neighbourhoods is the number of years that a person has lived in their current neighbourhood. Table 8.4 shows the proportion of persons who reported having lived in their neighbourhood (local area/suburb/town) for intervals ranging from less than a year, to more than 10 years, by age and sex. Almost half (49.6 per cent) of the Victorian population aged 18 years and over had been resident in their neighbourhood or local area for more than 10 years. The proportion of persons who had lived in their current neighbourhood for more than 10 years increased with increasing age (except for persons aged 18–24 years), rising from about one in six (18.1 per cent) of those aged 25–34 years to about three in four (77.2 per cent) of those aged 65 years and over. Table 8.4 also shows almost half of males (48.7 per cent) and females (50.5 per cent) had been resident in their neighbourhood or local area for more than 10 years. Of the remainder, 3.2 per cent of males and 2.6 per cent of females had lived in their current neighbourhood for less than a year, 25.0 per cent of males and 26.0 per cent of females had been in their neighbourhood for between one and five years, and 22.9 per cent of males and 20.7 per cent of females had resided in their neighbourhood for between six and 10 years.

Table 8.4 Years lived in current neighbourhood, by age and sex, 2010

Age group (years)	<1 year	95% CI		1-5 years	95% CI		6-10 years	95% CI		11+ years	95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**5.1***	2.1	11.7	**27.5**	19.4	37.5	**25.0**	17.1	34.9	**42.4**	32.9	52.4
25-34	**7.8***	4.7	12.8	**49.4**	42.1	56.7	**23.2**	17.6	30.0	**19.6**	14.4	26.1
35-44	**2.8***	1.5	5.3	**29.4**	24.8	34.4	**37.2**	32.1	42.5	**30.3**	25.6	35.4
45-54	**	**	**	**16.0**	12.9	19.7	**20.8**	17.3	24.8	**62.5**	58.0	66.9
55-64	**1.3***	0.6	2.9	**13.6**	10.6	17.3	**17.7**	14.3	21.7	**67.4**	62.8	71.7
65+	**	**	**	**8.7**	6.8	11.2	**14.0**	11.3	17.2	**76.5**	72.8	79.8
All males	**3.2**	**2.3**	**4.5**	**25.0**	**22.9**	**27.4**	**22.9**	**20.9**	**25.1**	**48.7**	**46.4**	**51.0**
FEMALES												
18-24	**5.5***	2.8	10.4	**29.9**	22.6	38.5	**15.5**	10.2	23.0	**49.1**	40.4	57.8
25-34	**4.3***	2.4	7.4	**54.6**	48.6	60.4	**24.5**	19.8	29.8	**16.7**	12.7	21.6
35-44	**2.9**	1.8	4.8	**27.7**	24.3	31.3	**33.8**	30.1	37.7	**35.6**	31.8	39.5
45-54	**1.5***	0.8	2.8	**17.4**	14.7	20.4	**21.0**	18.0	24.3	**59.9**	56.1	63.5
55-64	**0.7***	0.3	1.5	**12.9**	10.6	15.6	**14.7**	12.2	17.6	**71.7**	68.2	75.0
65+	**	**	**	**9.5**	7.8	11.6	**12.0**	10.0	14.3	**77.7**	74.8	80.4
All females	**2.6**	**1.9**	**3.5**	**26.0**	**24.2**	**27.9**	**20.7**	**19.1**	**22.4**	**50.5**	**48.7**	**52.4**
PERSONS												
18-24	**5.3***	3.1	9.0	**28.7**	23.0	35.1	**20.4**	15.4	26.5	**45.6**	39.1	52.3
25-34	**6.0**	4.1	8.8	**52.0**	47.2	56.7	**23.9**	20.1	28.1	**18.1**	14.7	22.1
35-44	**2.9**	1.9	4.3	**28.5**	25.6	31.6	**35.5**	32.3	38.8	**33.0**	29.9	36.1
45-54	**1.0***	0.6	1.8	**16.7**	14.6	19.0	**20.9**	18.6	23.5	**61.2**	58.2	64.0
55-64	**1.0***	0.5	1.8	**13.2**	11.3	15.4	**16.2**	14.0	18.6	**69.6**	66.7	72.3
65+	**0.3***	0.1	0.7	**9.2**	7.8	10.7	**12.9**	11.2	14.8	**77.2**	74.9	79.3
All persons	**2.9**	**2.3**	**3.6**	**25.5**	**24.1**	**27.0**	**21.8**	**20.5**	**23.2**	**49.6**	**48.1**	**51.1**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Table 8.5 shows years lived in current neighbourhood, by Department of Health region. There were few regional differences in neighbourhood tenure for either males or females, with similar proportions of persons from the metropolitan and rural regions having lived in their neighbourhood for more than 10 years. The only exception was in females from Grampians Region where a higher proportion (6.0 per cent) had only lived in their neighbourhood for less than one year.

Table 8.5 Years lived in current neighbourhood, by Department of Health region, 2010

	<1 year			1-5 years			6-10 years			11+ years		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**4.8***	2.4	9.4	**19.7**	15.0	25.4	**24.3**	19.7	29.5	**51.0**	45.5	56.6
North & West Metropolitan	**2.9***	1.4	6.1	**25.8**	21.5	30.5	**21.7**	17.9	26.0	**49.6**	45.2	54.1
Southern Metropolitan	**2.7***	1.1	6.4	**25.8**	21.1	31.2	**25.4**	20.8	30.6	**45.8**	40.8	50.8
All metropolitan males	**3.1**	2.0	4.8	**24.5**	21.8	27.4	**23.6**	21.0	26.3	**48.6**	45.8	51.5
Barwon-South Western	**5.5***	2.9	10.1	**24.3**	19.4	30.0	**18.2**	13.5	23.9	**52.0**	46.3	57.7
Gippsland	**	**	**	**24.9**	19.1	31.7	**23.1**	18.2	28.9	**50.4**	44.3	56.4
Grampians	**3.0***	1.3	6.6	**32.7**	26.8	39.2	**20.5**	16.0	26.0	**43.8**	38.2	49.6
Hume	**	**	**	**27.7**	22.1	34.1	**20.4**	15.7	26.0	**49.4**	43.2	55.6
Loddon Mallee	**	**	**	**25.4**	20.4	31.2	**25.1**	19.7	31.3	**45.9**	40.2	51.7
All rural males	**3.4**	2.2	5.2	**26.3**	23.6	29.1	**21.2**	18.7	23.9	**49.0**	46.2	51.8
All Victorian males	**3.2**	**2.3**	**4.5**	**25.0**	**22.9**	**27.4**	**22.9**	**20.9**	**25.1**	**48.7**	**46.4**	**51.0**
FEMALES												
Eastern Metropolitan	**3.0***	1.5	5.9	**26.8**	22.8	31.3	**19.7**	16.1	23.8	**50.5**	46.2	54.8
North & West Metropolitan	**2.8***	1.6	4.9	**23.0**	19.6	26.7	**19.8**	16.8	23.1	**54.1**	50.2	57.9
Southern Metropolitan	**1.6***	0.8	3.2	**27.2**	23.4	31.3	**22.1**	18.6	25.9	**49.0**	45.0	53.1
All metropolitan females	**2.5**	1.7	3.7	**25.3**	23.1	27.7	**20.5**	18.5	22.6	**51.5**	49.1	53.9
Barwon-South Western	**1.4***	0.6	3.4	**27.9**	23.3	33.0	**22.2**	18.1	26.9	**48.5**	43.6	53.5
Gippsland	**	**	**	**28.4**	23.8	33.4	**21.4**	17.2	26.4	**48.1**	43.4	52.9
Grampians	**6.0**	4.3	8.4	**30.2**	25.5	35.4	**17.9**	14.2	22.1	**45.7**	41.2	50.3
Hume	**2.9***	1.1	7.5	**27.3**	22.6	32.6	**21.2**	16.9	26.3	**48.5**	43.8	53.2
Loddon Mallee	**4.8**	3.1	7.6	**23.4**	19.6	27.7	**24.2**	20.7	28.2	**47.5**	43.3	51.8
All rural females	**2.7**	1.9	3.8	**27.5**	25.4	29.8	**21.6**	19.7	23.6	**48.0**	45.9	50.2
All Victorian females	**2.6**	**1.9**	**3.5**	**26.0**	**24.2**	**27.9**	**20.7**	**19.1**	**22.4**	**50.5**	**48.7**	**52.4**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Tolerance of diversity

Tolerance of diversity, or an ability to get along with individuals of different cultural and social backgrounds, is a key aspect of social cohesion. The 2010 survey asked respondents whether they thought multiculturalism (as a general concept) made life in their area better. Respondents had the option of a 'not applicable' answer if they considered their area was not multicultural.

Table 8.6 shows tolerance of diversity, by age and sex. Just under half (49.4 per cent) of persons thought multiculturalism definitely made life in their area better, and a further 25.8 per cent thought it made life in their area better 'sometimes'. Females (61.2 per cent) and persons (59.1 per cent) aged 18 to 24 years were significantly more likely to think that multiculturalism made life in their area better compared with all ages (50.1 and 49.4 per cent, respectively)

By contrast, more than one in 10 persons (11.2 per cent) thought that multiculturalism did not, or did not often, make life better in their area, while 7.8 per cent thought that the concept of multiculturalism was not applicable to their area. Males (8.1 per cent) were significantly more likely to be intolerant of diversity than females (5.4 per cent). Similarly, those aged 65 years and older (9.6 per cent) were significantly more likely to be to be intolerant of diversity compared with all ages (6.7 per cent).

Table 8.6 Tolerance of diversity[a], by age and sex, 2010

Age group	No, not at all			Not often			Sometimes			Yes definitely			Not applicable		
(years)		95% CI			95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**7.2***	3.5	14.3	**3.7***	1.6	8.7	**24.9**	17.1	34.8	**57.1**	47.1	66.6	**4.5***	2.1	9.4
25-34	**7.0***	4.1	11.5	**5.7***	3.2	10.1	**30.5**	24.2	37.7	**50.7**	43.4	58.0	**3.3***	1.7	6.2
35-44	**7.5**	5.2	10.8	**3.6***	2.1	6.0	**24.5**	20.2	29.4	**51.9**	46.6	57.2	**7.0**	5.0	9.8
45-54	**8.2**	6.0	11.1	**6.0**	4.1	8.6	**26.7**	22.8	31.0	**48.8**	44.2	53.4	**5.0**	3.6	6.7
55-64	**8.6**	6.3	11.6	**4.5**	2.9	7.0	**20.6**	16.9	24.8	**45.4**	40.6	50.3	**11.3**	8.9	14.2
65+	**10.2**	7.9	12.9	**4.4**	3.0	6.5	**22.5**	19.1	26.2	**39.6**	35.5	43.8	**13.0**	10.6	15.8
All males	**8.1**	**6.9**	**9.5**	**4.7**	**3.8**	**5.8**	**25.5**	**23.3**	**27.8**	**48.5**	**46.0**	**51.1**	**7.3**	6.3	8.4
FEMALES															
18-24	**	**	**	**4.9***	2.1	11.1	**26.6**	19.7	34.8	**61.2**	52.5	69.2	**3.6***	1.6	7.9
25-34	**5.5***	3.3	8.9	**2.4***	1.2	5.0	**28.8**	23.8	34.5	**56.7**	50.8	62.5	**4.5**	2.9	6.9
35-44	**4.7**	3.2	6.7	**5.5**	4.0	7.6	**26.1**	22.7	29.7	**51.9**	47.9	55.8	**7.0**	5.4	9.0
45-54	**5.1**	3.7	6.9	**5.4**	3.9	7.5	**26.4**	23.2	29.9	**49.9**	46.0	53.7	**8.1**	6.4	10.1
55-64	**6.2**	4.6	8.2	**4.6**	3.2	6.6	**25.6**	22.4	29.1	**45.8**	42.0	49.7	**10.7**	8.8	12.8
65+	**9.1**	7.3	11.3	**4.3**	3.1	6.0	**22.7**	20.1	25.7	**37.0**	33.8	40.3	**15.6**	13.6	17.9
All females	**5.4**	**4.7**	**6.3**	**4.4**	**3.7**	**5.3**	**26.3**	**24.5**	**28.1**	**50.1**	**48.1**	**52.1**	**8.3**	7.5	9.2
PERSONS															
18-24	**4.6***	2.5	8.4	**4.3***	2.3	7.8	**25.7**	20.3	32.0	**59.1**	52.4	65.4	**4.1***	2.3	7.0
25-34	**6.2**	4.3	8.9	**4.1**	2.6	6.5	**29.7**	25.5	34.2	**53.7**	49.0	58.4	**3.9**	2.7	5.6
35-44	**6.1**	4.6	7.9	**4.6**	3.4	6.1	**25.3**	22.5	28.3	**51.9**	48.6	55.2	**7.0**	5.6	8.6
45-54	**6.6**	5.3	8.2	**5.7**	4.4	7.3	**26.6**	24.0	29.3	**49.3**	46.4	52.3	**6.5**	5.4	7.8
55-64	**7.4**	5.9	9.1	**4.5**	3.4	6.0	**23.1**	20.6	25.8	**45.6**	42.6	48.7	**11.0**	9.4	12.7
65+	**9.6**	8.1	11.3	**4.4**	3.4	5.6	**22.6**	20.5	24.9	**38.2**	35.6	40.8	**14.5**	12.9	16.2
All persons	**6.7**	**6.0**	**7.6**	**4.5**	**3.9**	**5.2**	**25.8**	**24.4**	**27.3**	**49.4**	**47.8**	**51.0**	**7.8**	7.2	8.5

[a] Persons were asked if they thought that multiculturalism made life in their area better.

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.

Data are crude estimates, except for the totals - which represent the estimates for Victoria and have been age-standardised to the 2006 Victorian population.

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.

Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Table 8.7 shows tolerance of diversity, by Department of Health region. Males (51.7 per cent) and females (53.0 per cent) who resided in the metropolitan regions were significantly more likely to think that multiculturalism made life in their area better compared with those in the rural regions (39.3 and 41.9 per cent, respectively). However, this could be due, at least in part, to a greater proportion of males (15.1 per cent) and females (16.4 per cent) in the rural regions reporting that the question was not applicable to them, compared with those in the metropolitan regions (4.4 and 5.2 per cent, respectively).

Males from Hume Region (10.9 per cent) and females from Grampians Region (6.9 per cent) were more likely to think that multiculturalism did not often make life in their area better compared with all Victorian males (4.7 per cent) and females (4.4 per cent).

Table 8.7. Tolerance of diversity[a], by Department of Health region and sex, 2010

	No, not at all			Not often			Sometimes			Yes definitely			Not applicable		
		95% CI			95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
Eastern Metropolitan	**6.1**	4.1	8.9	**5.0***	2.7	8.8	**18.8**	14.6	23.8	**56.9**	50.9	62.6	**6.1***	3.6	10.1
North & West Metropolitan	**8.6**	6.1	12.0	**2.9***	1.8	4.8	**28.8**	24.2	33.8	**49.7**	44.6	54.8	**3.4**	2.1	5.2
Southern Metropolitan	**7.3**	4.9	10.9	**6.1**	4.1	9.0	**27.6**	22.7	33.0	**49.9**	44.4	55.4	**4.3**	2.8	6.5
All metropolitan males	**7.5**	6.0	9.3	**4.5**	3.4	5.9	**25.7**	22.9	28.6	**51.7**	48.5	54.9	**4.4**	3.3	5.8
Barwon-South Western	**9.6**	6.4	14.2	**2.7***	1.5	4.7	**25.8**	20.6	31.9	**42.7**	36.6	49.1	**13.4**	9.7	18.2
Gippsland	**7.9**	5.0	12.4	**5.1***	2.8	9.1	**23.3**	18.4	29.2	**40.1**	33.9	46.7	**16.1**	12.1	21.1
Grampians	**11.1**	7.5	16.1	**6.1***	3.3	10.8	**18.7**	14.6	23.7	**41.4**	35.2	47.9	**14.2**	11.0	18.1
Hume	**9.0**	6.1	13.1	**10.9**	6.8	17.0	**22.7**	17.8	28.5	**37.2**	30.7	44.3	**14.8**	10.3	20.6
Loddon Mallee	**10.5**	7.0	15.5	**3.7***	1.7	7.8	**32.3**	26.6	38.6	**31.9**	26.3	38.1	**17.7**	13.5	22.9
All rural males	**9.7**	8.1	11.7	**5.3**	4.0	7.0	**24.9**	22.2	27.8	**39.3**	36.2	42.4	**15.1**	13.1	17.3
All Victorian males	**8.1**	**6.9**	**9.5**	**4.7**	**3.8**	**5.8**	**25.5**	**23.3**	**27.8**	**48.5**	**46.0**	**51.1**	**7.3**	**6.3**	**8.4**
FEMALES															
Eastern Metropolitan	**3.8**	2.3	6.1	**3.8**	2.4	5.9	**24.5**	20.7	28.7	**56.4**	51.9	60.9	**5.9**	4.2	8.3
North & West Metropolitan	**5.4**	3.9	7.3	**5.1**	3.5	7.3	**26.7**	23.2	30.5	**54.8**	50.6	58.8	**2.3**	1.5	3.6
Southern Metropolitan	**6.4**	4.6	8.8	**5.3**	3.6	7.6	**26.4**	22.5	30.7	**47.7**	43.3	52.2	**8.2**	6.1	11.0
All metropolitan females	**5.2**	4.3	6.4	**4.7**	3.7	5.9	**26.1**	23.8	28.5	**53.0**	50.4	55.6	**5.2**	4.3	6.4
Barwon-South Western	**5.3**	3.6	7.6	**1.8***	1.0	3.1	**23.4**	19.0	28.3	**47.3**	42.1	52.5	**17.1**	14.3	20.3
Gippsland	**4.8**	3.4	6.8	**2.9***	1.6	5.3	**27.4**	22.8	32.4	**42.5**	37.2	47.9	**17.7**	14.3	21.7
Grampians	**6.3**	4.2	9.3	**6.9**	5.6	8.6	**26.7**	22.1	31.9	**38.1**	32.9	43.5	**16.7**	13.3	20.8
Hume	**7.1**	4.4	11.3	**3.8**	2.5	5.9	**30.1**	25.1	35.7	**40.3**	34.9	45.9	**14.3**	11.5	17.5
Loddon Mallee	**7.5**	5.5	10.1	**6.1**	4.3	8.5	**28.1**	24.1	32.6	**38.4**	34.0	43.1	**15.6**	12.8	19.0
All rural females	**6.2**	5.2	7.4	**3.7**	3.0	4.6	**26.9**	24.8	29.1	**41.9**	39.6	44.3	**16.4**	15.0	18.0
All Victorian females	**5.4**	**4.7**	**6.3**	**4.4**	**3.7**	**5.3**	**26.3**	**24.5**	**28.1**	**50.1**	**48.1**	**52.1**	**8.3**	**7.5**	**9.2**

[a] Persons were asked if they thought that multiculturalism made life in their area better.
Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Table 8.8 shows the trend over time of the proportion of persons who thought multiculturalism made life in their area better. The proportion of males and persons, but not females, who thought that multiculturalism made life in their area better, significantly decreased between 2005 and 2010. However the proportion of males, females and persons who disagreed and thought that multiculturalism did not make life in their area better, remained unchanged, between 2005 and 2010.

Table 8.8 Tolerance of diversity[a], 2005-2010

Year of	No			Not often			Sometimes			Yes			Not applicable		
Survey		95% CI			95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
2005	**7.2**	6.1	8.4	**3.9**	3.0	5.0	**21.6**	19.6	23.6	**56.5**	54.1	58.9	**7.5**	6.5	8.7
2006	**8.0**	6.9	9.4	**3.6**	2.9	4.6	**22.8**	20.7	25.0	**52.0**	49.5	54.5	**8.7**	7.6	9.9
2007	**7.6**	6.5	8.9	**3.9**	3.0	5.0	**23.4**	21.3	25.6	**53.6**	51.1	56.1	**7.0**	6.1	8.1
2008	**7.7**	7.1	8.4	**3.9**	3.5	4.5	**24.2**	23.1	25.4	**52.3**	51.0	53.7	**7.3**	6.7	7.8
2009	**8.4**	7.3	9.7	**4.4**	3.5	5.5	**28.6**	26.5	30.7	**46.7**	44.4	49.0	**7.8**	6.8	8.9
2010	**8.1**	6.9	9.5	**4.7**	3.8	5.8	**25.5**	23.3	27.8	**48.5**	46.0	51.1	**7.3**	6.3	8.4
FEMALES															
2005	**4.0**	3.4	4.7	**2.6**	2.2	3.2	**23.8**	22.1	25.6	**57.4**	55.5	59.3	**9.3**	8.4	10.2
2006	**5.1**	4.3	6.0	**3.7**	3.0	4.6	**22.1**	20.5	23.9	**52.7**	50.8	54.7	**11.4**	10.5	12.5
2007	**5.1**	4.2	6.0	**3.1**	2.5	3.8	**26.8**	25.1	28.7	**48.4**	46.4	50.4	**10.7**	9.7	11.8
2008	**6.4**	6.0	6.9	**3.4**	3.1	3.8	**23.8**	22.9	24.7	**52.3**	51.2	53.4	**8.3**	7.9	8.8
2009	**5.7**	5.0	6.5	**4.4**	3.7	5.4	**28.1**	26.4	29.9	**47.0**	45.1	48.9	**9.3**	8.5	10.3
2010	**5.4**	4.7	6.3	**4.4**	3.7	5.3	**26.3**	24.5	28.1	**50.1**	48.1	52.1	**8.3**	7.5	9.2
PERSONS															
2005	**5.5**	4.9	6.2	**3.3**	2.7	3.9	**22.8**	21.5	24.2	**56.9**	55.3	58.4	**8.4**	7.8	9.2
2006	**6.5**	5.8	7.3	**3.6**	3.1	4.2	**22.5**	21.1	23.9	**52.4**	50.8	54.0	**10.1**	9.4	10.9
2007	**6.3**	5.6	7.1	**3.5**	2.9	4.1	**25.2**	23.8	26.6	**50.9**	49.3	52.6	**8.9**	8.2	9.7
2008	**7.1**	6.7	7.5	**3.7**	3.4	4.0	**24.0**	23.3	24.8	**52.2**	51.4	53.1	**7.8**	7.5	8.2
2009	**7.0**	6.3	7.7	**4.4**	3.8	5.1	**28.4**	27.0	29.8	**46.7**	45.2	48.2	**8.6**	8.0	9.3
2010	**6.7**	6.0	7.6	**4.5**	3.9	5.2	**25.8**	24.4	27.3	**49.4**	47.8	51.0	**7.8**	7.2	8.5

[a] Persons were asked if they thought that multiculturalism made life in their area better.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses
Data were age-standardised to the 2006 Victorian population.
Ordinary least squares linear regression was used to test for trends over time.

Social and support networks

Families, friends and neighbours are among the more immediate sources of care and support for individuals if they need help with everyday activities or unforeseen contingencies. They are part of the social environment in which adults spend a large part of each day and in which children grow and develop. Social and support networks refer to informal relationships that individuals have with family, friends, neighbours and other members of their community. These networks often serve as a resource, providing individuals with information or emotional, practical and financial support. These resources are often provided to an individual without obligation, except for a norm of reciprocity. At a social level, social and support networks provide individuals with a sense of belonging.

Another layer of support within the community is provided by volunteer–based organisations and support groups. Many individuals receive their help. Volunteer–based organisations provide a vehicle for individuals or groups to address human, environmental and social needs. Support groups provide an opportunity for people to share experiences with others with similar backgrounds or experiences, and often benefit from the work of volunteers.

Ability to get help from family, friends and neighbours

An individual's informal relationships with family, friends and neighbours provide valuable support in times of need. Survey respondents were asked whether they were able to get help from family, friends and neighbours if they needed it. Tables 8.9 to 8.11 show the proportions of persons who reported they could get help from family, friends or neighbours, by age and sex.

Almost eight in 10 (81.7 per cent) persons reported that they could definitely get help from family if needed (table 8.9), and a further 11.1 per cent felt they could 'sometimes' get help. There were no significant differences between the sexes, with the exception that males aged 35 to 55 years (79.7 per cent) were more likely to be able to get help from family, compared with their female counterparts (71.4 per cent). While there were also no differences between males by age, females aged 35 to 44 years were significantly less likely to be able to get help from family (71.4 per cent) compared with all ages (81.0 per

cent). Conversely, females aged 35 to 44 years were significantly more likely to not very often get help from family (6.0 per cent) compared with all ages (2.9 per cent).

Table 8.9 Able to get help from family when needed, by age and sex, 2010

Age group	No, not at all			Not often			Sometimes			Yes definitely		
(years)		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**	**	**	0.0	0.0	0.0	12.9*	7.4	21.6	85.8	76.9	91.7
25-34	4.4*	2.1	8.7	**	**	**	7.7*	4.5	12.9	86.5	80.5	90.9
35-44	3.0*	1.7	5.3	2.6*	1.4	4.8	14.2	10.9	18.2	79.8	75.3	83.6
45-54	4.7	3.1	7.1	3.2*	1.9	5.3	12.8	10.0	16.1	79.0	75.0	82.5
55-64	4.4	2.9	6.8	1.8*	0.9	3.7	8.8	6.4	11.9	84.2	80.4	87.3
65+	5.6	3.9	7.9	2.4*	1.4	3.9	10.2	7.8	13.1	80.8	77.3	83.9
All males	4.1	3.2	5.2	2.0	1.5	2.6	11.1	9.6	12.8	82.4	80.4	84.2
FEMALES												
18-24	**	**	**	**	**	**	10.2*	6.1	16.4	85.4	77.9	90.7
25-34	4.1*	2.3	7.2	**	**	**	10.6	7.4	14.9	84.0	79.1	87.9
35-44	6.6	4.9	8.9	6.0	4.3	8.3	15.6	12.8	18.8	71.4	67.6	74.9
45-54	5.3	3.7	7.3	3.8	2.6	5.6	10.4	8.3	12.9	80.1	76.9	83.0
55-64	2.7	1.8	4.2	2.5	1.5	4.0	9.1	7.1	11.5	85.1	82.2	87.6
65+	4.6	3.3	6.2	1.3	0.8	2.0	9.9	8.0	12.0	82.7	80.0	85.1
All females	4.5	3.7	5.4	2.9	2.3	3.6	11.0	9.8	12.4	81.0	79.4	82.5
PERSONS												
18-24	**	**	**	**	**	**	11.6	7.9	16.7	85.6	80.1	89.8
25-34	4.2	2.7	6.6	1.3*	0.6	3.0	9.2	6.8	12.3	85.3	81.6	88.3
35-44	4.8	3.7	6.3	4.3	3.2	5.8	14.9	12.7	17.4	75.5	72.6	78.2
45-54	5.0	3.8	6.5	3.5	2.6	4.8	11.6	9.8	13.6	79.6	77.1	81.9
55-64	3.6	2.6	4.9	2.2	1.4	3.2	8.9	7.3	10.8	84.7	82.3	86.7
65+	5.0	4.0	6.3	1.8	1.2	2.5	10.0	8.5	11.7	81.9	79.7	83.8
All persons	4.3	3.7	5.0	2.4	2.0	2.9	11.1	10.1	12.1	81.7	80.4	82.9

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Almost eight in 10 (81.1 per cent) persons reported that they could definitely get help from friends if needed, and a further 13.7 per cent felt they could 'sometimes' get help (table 8.10). There were no significant differences between the sexes, with the exception that males aged 45 to 54 years (76.9 per cent) were less likely to be able to get help from friends, compared with their female counterparts (85.4 per cent). While there were also no differences between males by age, females aged 65 years and over were significantly more likely to not be able to get help from friends (5.3 per cent) compared with all ages (2.6 per cent).

Table 8.10 Able to get help from friends when needed, by age and sex, 2010

Age group	No, not at all			Not often				Sometimes			Yes definitely		
(years)		95% CI			95% CI				95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL		**%**	LL	UL	**%**	LL	UL
18-24	**	**	**	**	**	**		**11.3***	6.2	19.7	**86.5**	77.9	92.1
25-34	**	**	**	**2.5***	1.0	6.6		**15.0**	10.5	20.9	**81.7**	75.4	86.7
35-44	**1.8***	0.8	4.2	**1.6***	0.7	3.5		**16.2**	12.7	20.4	**80.4**	75.9	84.3
45-54	**2.8***	1.5	5.0	**4.3**	2.7	6.8		**16.0**	12.9	19.7	**76.9**	72.7	80.6
55-64	**3.3***	2.0	5.7	**2.3***	1.2	4.3		**14.9**	11.7	18.7	**78.8**	74.5	82.5
65+	**4.7**	3.2	7.0	**3.1**	1.9	5.0		**12.0**	9.5	15.1	**78.8**	75.0	82.1
All males	**2.6**	**1.9**	**3.5**	**2.5**	**1.8**	**3.4**		**14.4**	**12.7**	**16.2**	**80.2**	**78.1**	**82.1**
FEMALES													
18-24	**	**	**	**	**	**		**9.4***	5.5	15.7	**86.8**	79.9	91.6
25-34	**1.3***	0.5	3.3	**1.6***	0.6	4.1		**14.3**	10.6	18.9	**82.7**	77.8	86.7
35-44	**2.7***	1.6	4.6	**2.5***	1.5	4.3		**16.4**	13.6	19.6	**78.4**	74.8	81.6
45-54	**1.9***	1.1	3.3	**1.1***	0.6	2.2		**11.3**	9.1	14.0	**85.4**	82.5	87.9
55-64	**2.7**	1.7	4.4	**1.4***	0.8	2.7		**12.0**	9.7	14.8	**83.1**	79.9	85.8
65+	**5.3**	3.9	7.2	**2.7**	1.7	4.1		**12.0**	9.9	14.5	**78.4**	75.4	81.1
All females	**2.6**	**2.1**	**3.2**	**1.9**	**1.4**	**2.5**		**12.9**	**11.6**	**14.3**	**82.0**	**80.4**	**83.5**
PERSONS													
18-24	**	**	**	**1.2***	0.5	3.1		**10.4**	6.9	15.4	**86.7**	81.4	90.6
25-34	**1.0***	0.4	2.4	**2.1***	1.0	4.1		**14.6**	11.6	18.3	**82.2**	78.3	85.5
35-44	**2.3**	1.5	3.6	**2.1**	1.3	3.2		**16.3**	14.0	18.9	**79.4**	76.6	81.9
45-54	**2.3**	1.5	3.5	**2.7**	1.8	4.0		**13.7**	11.7	15.9	**81.2**	78.7	83.4
55-64	**3.0**	2.1	4.3	**1.9**	1.2	2.9		**13.4**	11.4	15.7	**81.0**	78.3	83.3
65+	**5.1**	4.0	6.4	**2.9**	2.1	3.9		**12.0**	10.4	13.9	**78.6**	76.3	80.7
All persons	**2.6**	**2.1**	**3.1**	**2.2**	**1.7**	**2.7**	**0.0**	**13.7**	**12.6**	**14.8**	**81.1**	**79.8**	**82.3**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Slightly less than half (49.9 per cent) of persons reported that they could definitely get help from neighbours if needed, and a further 24.2 per cent of persons felt they could 'sometimes' get help (table 8.11). There were no differences between the sexes. However, being able to get help from neighbours was related to age, with a higher proportion of males and females aged 55 years and over reporting that they were definitely able to get help from neighbours when needed.

Table 8.11 Able to get help from neighbours when needed, by age and sex, 2010

Age group	No, not at all			Not often			Sometimes			Yes definitely		
(years)		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
18-24	**24.5**	16.8	34.3	**12.9***	7.6	21.2	**27.8**	19.7	37.8	**33.7**	24.9	43.7
25-34	**15.5**	10.9	21.5	**12.4**	8.2	18.3	**31.8**	25.3	39.1	**37.2**	30.5	44.5
35-44	**13.9**	10.6	18.1	**7.4**	5.0	10.7	**27.6**	23.0	32.7	**50.4**	45.1	55.8
45-54	**12.8**	10.0	16.3	**7.1**	5.0	9.8	**25.6**	21.7	29.8	**51.3**	46.7	55.8
55-64	**9.7**	7.2	13.1	**4.4**	2.9	6.7	**20.7**	17.0	24.9	**62.3**	57.5	66.9
65+	**13.0**	10.3	16.2	**4.7**	3.2	6.9	**15.6**	12.6	19.0	**62.6**	58.4	66.6
All males	**14.8**	**13.0**	**16.9**	**8.3**	**6.8**	**10.0**	**25.3**	**23.1**	**27.7**	**49.2**	**46.8**	**51.6**
FEMALES												
18-24	**21.4**	15.0	29.6	**10.4**	6.4	16.6	**27.5**	20.4	36.1	**39.4**	31.2	48.2
25-34	**19.2**	15.0	24.4	**11.0**	7.7	15.3	**28.4**	23.3	34.1	**38.6**	33.0	44.4
35-44	**15.3**	12.6	18.4	**8.7**	6.7	11.3	**26.9**	23.4	30.6	**47.8**	43.9	51.8
45-54	**14.2**	11.7	17.2	**6.9**	5.2	9.1	**21.8**	18.8	25.1	**55.0**	51.2	58.7
55-64	**12.6**	10.3	15.5	**4.9**	3.5	6.9	**18.5**	15.7	21.7	**61.2**	57.3	64.9
65+	**12.1**	10.1	14.6	**5.6**	4.2	7.5	**16.0**	13.6	18.7	**62.5**	59.2	65.8
All females	**15.9**	**14.3**	**17.5**	**8.0**	**6.9**	**9.3**	**22.8**	**19.2**	**26.9**	**49.8**	**45.3**	**54.3**
PERSONS												
18-24	**23.0**	17.8	29.2	**11.7**	8.1	16.6	**27.7**	22.1	34.1	**36.4**	30.3	43.1
25-34	**17.3**	14.1	21.2	**11.7**	8.9	15.2	**30.1**	25.9	34.7	**37.9**	33.4	42.6
35-44	**14.6**	12.4	17.2	**8.1**	6.4	10.0	**27.2**	24.3	30.3	**49.1**	45.8	52.4
45-54	**13.5**	11.6	15.8	**7.0**	5.6	8.7	**23.6**	21.2	26.3	**53.1**	50.2	56.1
55-64	**11.2**	9.4	13.3	**4.7**	3.6	6.1	**19.6**	17.2	22.2	**61.7**	58.7	64.7
65+	**12.5**	10.8	14.4	**5.2**	4.1	6.6	**15.8**	13.9	17.9	**62.6**	59.9	65.1
All persons	**15.3**	**14.1**	**16.6**	**8.2**	**7.2**	**9.2**	**24.2**	**22.8**	**25.7**	**49.9**	**48.3**	**51.5**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria and were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Tables 8.12 to 8.14 provide data on whether males and females could get help from family, friends and neighbours, by Department of Health region. There were no regional differences in the proportion of males or females who could or could not get help from family when needed.

Table 8.12 Able to get help from family when needed, by Department of Health region, 2010

	No, not at all			Not often			Sometimes			Yes definitely		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**3.2**	2.0	5.2	**1.5***	0.7	3.0	**8.9**	6.0	13.1	**86.0**	81.7	89.4
North & West Metropolitan	**4.6**	2.8	7.4	**	**	**	**12.1**	9.4	15.6	**82.4**	78.3	85.8
Southern Metropolitan	**3.7***	2.1	6.4	**4.1**	2.5	6.6	**10.2**	7.2	14.2	**81.5**	76.7	85.5
All metropolitan males	**4.1**	**3.0**	**5.6**	**2.0**	**1.3**	**2.8**	**10.9**	**9.1**	**13.1**	**82.6**	**80.1**	**84.9**
Barwon-South Western	**3.0***	1.4	6.6	**1.7***	0.9	3.2	**12.9**	9.1	18.0	**81.6**	76.3	86.0
Gippsland	**2.9***	1.7	5.0	**3.1***	1.2	7.4	**10.7**	7.5	15.2	**82.3**	76.9	86.6
Grampians	**3.5**	2.2	5.5	**1.7***	0.7	4.2	**10.2**	6.9	14.8	**83.8**	78.9	87.8
Hume	**5.2***	3.1	8.4	**1.7***	0.7	4.0	**8.8**	6.1	12.4	**84.1**	79.6	87.8
Loddon Mallee	**5.6***	3.3	9.4	**2.1***	1.1	4.0	**13.5**	9.5	18.7	**78.1**	72.4	82.9
All rural males	**4.0**	3.1	5.2	**2.0**	1.4	2.9	**11.5**	9.7	13.6	**81.8**	79.5	83.9
All Victorian males	**4.1**	**3.2**	**5.2**	**2.0**	**1.5**	**2.6**	**11.1**	**9.6**	**12.8**	**82.4**	**80.4**	**84.2**
FEMALES												
Eastern Metropolitan	**2.6**	1.7	4.2	**2.2***	1.3	3.6	**9.2**	6.9	12.2	**85.3**	82.0	88.1
North & West Metropolitan	**5.3**	3.7	7.6	**3.8**	2.5	5.9	**9.7**	7.6	12.4	**80.4**	77.0	83.5
Southern Metropolitan	**5.0**	3.5	7.1	**2.4**	1.5	3.8	**13.8**	11.0	17.2	**77.8**	73.9	81.3
All metropolitan females	**4.5**	**3.6**	**5.7**	**3.0**	**2.2**	**4.0**	**11.0**	**9.5**	**12.7**	**80.8**	**78.7**	**82.7**
Barwon-South Western	**4.7**	3.2	6.8	**2.7***	1.6	4.5	**11.2**	8.2	15.2	**81.1**	76.8	84.8
Gippsland	**4.4**	2.8	7.0	**2.5***	1.5	4.3	**11.3**	8.5	14.9	**81.2**	77.1	84.8
Grampians	**3.0**	1.9	4.5	**3.3***	1.9	5.7	**10.6**	7.7	14.4	**82.6**	78.4	86.1
Hume	**5.1**	3.3	7.7	**1.4***	0.8	2.6	**9.3**	6.5	13.3	**84.1**	79.7	87.8
Loddon Mallee	**3.6**	2.3	5.6	**2.0***	1.1	3.4	**12.3**	9.6	15.7	**81.9**	78.1	85.1
All rural females	**4.2**	**3.5**	**5.2**	**2.3**	**1.8**	**3.0**	**11.1**	**9.7**	**12.8**	**82.0**	**80.2**	**83.7**
All Victorian females	**4.5**	**3.7**	**5.4**	**2.9**	**2.3**	**3.6**	**11.0**	**9.8**	**12.4**	**81.0**	**79.4**	**82.5**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Table 8.13 shows that there were few regional differences in the proportion of males and females who reported that they could or could not get help from friends when needed. Of note, is that a higher proportion of males from Eastern Metropolitan Region (86.6 per cent) reported being able to get help from friends compared with all Victorian males (80.2 per cent). By contrast, a lower proportion of females from North and West Metropolitan Region (77.1 per cent) reported being able to get help from friends when needed, compared with all Victorian females (82.0 per cent).

Table 8.13 Able to get help from friends when needed, by Department of Health region, 2010

	No, not at all			Not often			Sometimes			Yes definitely		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**	**	**	**2.1***	1.2	3.9	**10.0**	7.2	13.8	**86.6**	82.6	89.8
North & West Metropolitan	**4.4**	2.9	6.8	**2.7***	1.6	4.6	**14.6**	11.5	18.4	**77.9**	73.7	81.6
Southern Metropolitan	**2.4***	1.3	4.5	**3.3***	1.9	5.9	**16.2**	12.5	20.9	**77.7**	72.7	82.0
All metropolitan males	**2.8**	**2.0**	**4.0**	**2.8**	**1.9**	**3.9**	**14.1**	**12.1**	**16.5**	**79.9**	**77.3**	**82.2**
Barwon-South Western	**2.1***	0.8	5.2	**1.6***	0.8	3.1	**15.4**	11.2	20.6	**80.8**	75.2	85.4
Gippsland	**2.9***	1.6	5.0	**3.1***	1.3	7.5	**11.0**	7.3	16.0	**82.8**	77.2	87.3
Grampians	**1.9***	1.0	3.6	**	**	**	**17.0**	12.7	22.4	**79.8**	74.3	84.4
Hume	**0.8***	0.3	2.0	**1.8***	0.7	4.3	**18.8**	13.6	25.4	**78.3**	71.6	83.7
Loddon Mallee	**1.7***	0.9	3.3	**0.9***	0.4	2.1	**15.4**	11.1	21.0	**81.5**	75.9	86.0
All rural males	**1.9**	**1.3**	**2.7**	**1.7**	**1.1**	**2.6**	**15.8**	**13.6**	**18.3**	**80.3**	**77.7**	**82.7**
All Victorian males	**2.6**	**1.9**	**3.5**	**2.5**	**1.8**	**3.4**	**14.4**	**12.7**	**16.2**	**80.2**	**78.1**	**82.1**
FEMALES												
Eastern Metropolitan	**2.0***	1.0	4.1	**2.8***	1.6	4.8	**8.2**	6.0	11.2	**86.6**	83.1	89.5
North & West Metropolitan	**3.1**	2.1	4.6	**2.0***	1.2	3.3	**16.7**	13.9	19.9	**77.1**	73.6	80.3
Southern Metropolitan	**3.2**	2.1	4.9	**1.6***	0.7	3.6	**13.4**	10.5	17.0	**81.7**	77.9	85.0
All metropolitan females	**2.8**	**2.2**	**3.7**	**2.0**	**1.4**	**2.8**	**13.3**	**11.6**	**15.1**	**81.3**	**79.3**	**83.2**
Barwon-South Western	**2.5***	1.4	4.3	**2.2***	1.1	4.4	**11.6**	8.6	15.4	**83.2**	79.0	86.7
Gippsland	**2.0***	1.1	3.7	**0.6***	0.2	1.4	**13.0**	9.8	17.2	**83.8**	79.6	87.3
Grampians	**1.1***	0.6	2.1	**1.6***	0.7	4.0	**11.1**	7.9	15.2	**85.4**	81.1	88.8
Hume	**	**	**	**	**	**	**11.4**	8.6	15.0	**84.8**	80.2	88.5
Loddon Mallee	**2.0***	1.0	3.9	**1.9***	1.0	3.8	**12.6**	9.8	16.1	**82.9**	79.1	86.1
All rural females	**2.1**	**1.5**	**2.9**	**1.5**	**1.0**	**2.3**	**12.0**	**10.5**	**13.6**	**83.9**	**82.0**	**85.5**
All Victorian females	**2.6**	**2.1**	**3.2**	**1.9**	**1.4**	**2.5**	**12.9**	**11.6**	**14.3**	**82.0**	**80.4**	**83.5**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Table 8.14 shows that males (56.0 per cent) and females (55.7 per cent) who resided in rural Victoria were more likely to report being able to get help from neighbours when needed, compared with their metropolitan counterparts (46.7 and 48.8 per cent, respectively). Males from Loddon Mallee Region and females from Gippsland Region were more likely to report being able to get help from neighbours when needed compared with all Victorian males (49.2 per cent) and females (49.8 per cent).

Table 8.14 Able to get help from neighbours when needed, by Department of Health, 2010

	No, not at all			Not often			Sometimes			Yes definitely		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**13.1**	9.5	17.8	**9.5**	6.0	14.5	**26.2**	21.0	32.2	**48.7**	43.5	53.8
North & West Metropolitan	**16.8**	13.2	21.2	**7.9**	5.4	11.6	**25.4**	21.2	30.0	**47.7**	42.7	52.8
Southern Metropolitan	**15.5**	11.6	20.3	**8.4**	5.9	11.8	**29.9**	24.9	35.3	**43.3**	38.2	48.6
All metropolitan males	**15.5**	**13.2**	**18.1**	**8.5**	**6.7**	**10.7**	**26.8**	**24.0**	**29.8**	**46.7**	**43.7**	**49.8**
Barwon-South Western	**16.1**	11.7	21.8	**9.5**	5.9	14.8	**21.0**	16.3	26.7	**51.4**	45.5	57.3
Gippsland	**11.7**	7.8	17.2	**6.6***	3.9	11.0	**19.6**	14.6	25.9	**58.0**	51.2	64.5
Grampians	**12.3**	8.4	17.7	**5.2***	3.0	8.9	**25.5**	20.0	31.9	**54.4**	48.0	60.7
Hume	**7.9**	4.8	12.8	**9.4***	5.6	15.3	**24.6**	18.8	31.5	**57.1**	50.0	64.0
Loddon Mallee	**16.2**	12.0	21.5	**4.9**	3.1	7.6	**15.6**	11.2	21.3	**60.1**	53.8	66.2
All rural males	**13.1**	**10.9**	**15.6**	**7.3**	**5.7**	**9.4**	**21.1**	**18.6**	**23.9**	**56.0**	**52.9**	**59.1**
All Victorian males	**14.8**	**13.0**	**16.9**	**8.3**	**6.8**	**10.0**	**25.3**	**23.1**	**27.7**	**49.2**	**46.8**	**51.6**
FEMALES												
Eastern Metropolitan	**13.0**	10.1	16.7	**10.3**	7.5	14.0	**22.6**	18.9	26.9	**51.4**	46.9	55.9
North & West Metropolitan	**18.5**	15.3	22.3	**7.6**	5.7	10.1	**24.9**	21.4	28.8	**46.3**	42.2	50.5
Southern Metropolitan	**17.0**	13.9	20.8	**8.1**	5.9	11.1	**22.8**	19.2	26.9	**49.8**	45.3	54.3
All metropolitan females	**16.7**	**14.7**	**18.8**	**8.4**	**7.0**	**10.0**	**23.8**	**21.6**	**26.1**	**48.8**	**46.3**	**51.4**
Barwon-South Western	**12.0**	9.3	15.4	**5.2**	3.5	7.5	**27.2**	22.5	32.4	**51.6**	46.4	56.7
Gippsland	**11.9**	9.1	15.5	**6.1**	4.0	9.1	**19.7**	15.6	24.5	**61.0**	55.8	66.0
Grampians	**18.9**	15.0	23.6	**8.6**	5.7	12.7	**20.1**	15.9	24.9	**49.3**	44.2	54.4
Hume	**12.5**	9.1	17.1	**8.3**	5.1	13.1	**18.7**	15.2	22.7	**59.5**	53.8	64.8
Loddon Mallee	**14.5**	11.3	18.4	**7.4**	5.2	10.4	**18.4**	15.1	22.4	**57.4**	52.8	61.9
All rural females	**13.7**	**12.1**	**15.5**	**7.0**	**5.8**	**8.4**	**21.2**	**19.2**	**23.3**	**55.7**	**53.3**	**58.0**
All Victorian females	**15.9**	**14.3**	**17.5**	**8.0**	**6.9**	**9.3**	**22.8**	**19.2**	**26.9**	**49.8**	**45.3**	**54.3**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Help with care in the case of an emergency

Survey respondents were asked if one of their relatives or friends, not living with them, could care for them (or their children) in an emergency. Table 8.15 shows that most males (90.0 per cent) and females (92.2 per cent) reported that they had a relative or friend, not living with them, who would care for them or their children in an emergency. There were no differences between the sexes and no differences by age, with the exception that females (88.5 per cent) and persons (88.4 per cent), aged 65 years and over, were less likely to have a friend or relative who could care for them in an emergency, compared with all ages (92.2 and 91.1 per cent, respectively).

Table 8.15 Help with emergency care, by age and sex, 2010

Age group	Yes			No		
(years)		95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
18-24	**91.3**	82.9	95.8	**7.3***	3.3	15.2
25-34	**93.6**	88.6	96.5	**6.4***	3.5	11.4
35-44	**90.7**	86.9	93.4	**7.3**	4.9	10.8
45-54	**89.3**	86.0	92.0	**7.8**	5.6	10.8
55-64	**87.0**	83.3	90.0	**10.3**	7.6	13.7
65+	**88.3**	85.3	90.7	**8.0**	6.0	10.6
All males	**90.0**	**88.4**	**91.5**	**7.8**	**6.5**	**9.3**
FEMALES						
18-24	**94.6**	88.7	97.5	**5.4***	2.5	11.3
25-34	**95.7**	92.8	97.5	**3.7***	2.0	6.4
35-44	**90.7**	88.0	92.9	**8.0**	6.0	10.6
45-54	**92.1**	89.7	94.0	**6.0**	4.4	8.1
55-64	**91.9**	89.5	93.8	**6.5**	4.8	8.8
65+	**88.5**	86.1	90.6	**6.2**	4.7	8.0
All females	**92.2**	**91.0**	**93.1**	**6.0**	**5.1**	**7.1**
PERSONS						
18-24	**92.9**	88.1	95.9	**6.4***	3.6	10.9
25-34	**94.7**	91.9	96.5	**5.0**	3.2	7.7
35-44	**90.7**	88.5	92.5	**7.7**	6.0	9.7
45-54	**90.7**	88.8	92.4	**6.9**	5.5	8.6
55-64	**89.5**	87.4	91.3	**8.4**	6.8	10.4
65+	**88.4**	86.6	90.0	**7.0**	5.8	8.5
All persons	**91.1**	**90.1**	**92.0**	**6.9**	**6.1**	**7.8**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Table 8.16 shows that males, but not females, living in the rural regions (93.4 per cent) were more likely than those from the metropolitan regions (88.8 per cent) to have a relative or friend who would care for them (or their children) in an emergency. Specifically, this included males from Grampians and Loddon Mallee Regions. There were no differences between females by Department of Health region.

Table 8.16 Help with emergency care, by Department of Health region, 2010

	Yes			No		
		95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
Eastern Metropolitan	**88.2**	84.4	91.2	**8.7**	6.0	12.3
North & West Metropolitan	**87.2**	83.4	90.1	**10.3**	7.6	13.9
Southern Metropolitan	**92.4**	89.0	94.8	**5.7**	3.9	8.2
All metropolitan males	**88.8**	86.7	90.7	**8.6**	7.0	10.6
Barwon-South Western	**94.2**	90.8	96.4	**4.6***	2.6	8.1
Gippsland	**91.9**	88.0	94.7	**6.5**	4.0	10.4
Grampians	**94.8**	92.5	96.5	**4.5**	3.0	6.8
Hume	**92.6**	88.3	95.4	**6.0***	3.4	10.4
Loddon Mallee	**94.5**	91.8	96.4	**3.6***	2.1	6.0
All rural males	**93.4**	**92.0**	**94.6**	**5.2**	**4.1**	**6.5**
All Victorian males	**90.0**	**88.4**	**91.5**	**7.8**	**6.5**	**9.3**
FEMALES						
Eastern Metropolitan	**94.0**	91.7	95.6	**4.7**	3.2	6.8
North & West Metropolitan	**92.4**	90.0	94.2	**5.5**	3.9	7.7
Southern Metropolitan	**88.8**	85.8	91.3	**8.7**	6.5	11.6
All metropolitan females	**91.6**	90.1	92.9	**6.3**	5.2	7.7
Barwon-South Western	**93.7**	91.2	95.5	**5.8**	4.0	8.2
Gippsland	**93.9**	91.4	95.7	**4.4**	3.1	6.4
Grampians	**94.2**	91.4	96.2	**3.9**	2.5	6.2
Hume	**90.7**	86.1	93.9	**8.1**	5.1	12.8
Loddon Mallee	**95.0**	92.9	96.5	**4.1**	2.7	6.0
All rural females	**93.5**	**92.2**	**94.6**	**5.4**	**4.4**	**6.5**
All Victorian females	**92.2**	**91.0**	**93.1**	**6.0**	**5.1**	**7.1**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Trend over time

The trend over time of the proportion of Victorians who could get care for themselves or their children in an emergency, from family or friends, for the period 2003-2010 is presented in table 8.17. The proportion of males and females who could get care for themselves or their children in an emergency remained constant between 2003 and 2010.

Table 8.17 Help with emergency care, by sex, 2003-2010

	Yes			No		
		95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
2003	**92.0**	90.6	93.2	**4.8**	4.0	5.9
2004	**92.2**	90.8	93.3	**5.7**	4.8	6.9
2005	**90.0**	88.4	91.4	**8.3**	7.0	9.8
2006	**92.6**	91.4	93.7	**5.4**	4.5	6.5
2007	**91.3**	89.8	92.7	**6.6**	5.4	8.0
2008	**87.5**	86.6	88.3	**9.9**	9.2	10.8
2009	**90.8**	89.5	92.0	**7.5**	6.4	8.8
2010	**90.0**	88.4	91.5	**7.8**	6.5	9.3
FEMALES						
2003	**92.8**	91.8	93.8	**4.7**	3.9	5.6
2004	**93.2**	92.2	94.1	**5.2**	4.4	6.0
2005	**91.2**	90.0	92.2	**7.1**	6.1	8.2
2006	**92.9**	91.8	93.8	**5.5**	4.6	6.4
2007	**92.7**	91.7	93.7	**5.8**	4.9	6.7
2008	**89.5**	88.9	90.1	**8.2**	7.7	8.8
2009	**91.1**	89.9	92.1	**6.9**	6.0	8.0
2010	**92.2**	91.0	93.1	**6.0**	5.1	7.1
PERSONS						
2003	**92.4**	91.5	93.1	**4.9**	4.3	5.6
2004	**92.7**	91.8	93.4	**5.5**	4.9	6.3
2005	**90.5**	89.6	91.4	**7.7**	6.9	8.6
2006	**92.7**	91.9	93.5	**5.5**	4.8	6.2
2007	**92.1**	91.2	92.9	**6.1**	5.4	7.0
2008	**88.5**	88.0	89.0	**9.1**	8.6	9.5
2009	**91.0**	90.1	91.8	**7.2**	6.4	8.0
2010	**91.1**	90.1	92.0	**6.9**	6.1	7.8

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data were age standardised to the 2006 Victorian population.
Ordinary least squares linear regression was used to test for trends over time.

Help finding a job

Survey respondents, aged less than 65 years, were asked whether they could get a job through a relative or friend, if needed. Table 8.18 shows the proportion of persons who said that they could get a job through a relative or friend, by age and sex. More males (59.3 per cent) than females (49.9 per cent) reported that they could get a job through a relative or friend if needed. The ability to get a job through a relative or friend declined with age, with those aged 34 years and younger being more likely to be able to get a job and those aged 45 years and older being less likely, compared with all ages.

Table 8.18 Able to get a job though a relative or friend, by age[(a)] and sex, 2010

Age group	Yes			No		
(years)		95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL
18-24	**80.7**	71.3	87.6	**14.2***	8.4	22.9
25-34	**70.0**	62.8	76.3	**21.9**	16.4	28.8
35-44	**58.4**	53.0	63.6	**31.7**	26.9	36.9
45-54	**48.4**	43.9	53.0	**40.0**	35.6	44.6
55-64	**38.6**	34.1	43.4	**52.7**	47.9	57.5
65+	N/A	N/A	N/A	N/A	N/A	N/A
All males	**59.3**	**56.6**	**62.0**	**32.0**	**29.5**	**34.5**
FEMALES						
18-24	**72.7**	64.1	79.9	**24.1**	17.3	32.6
25-34	**53.4**	47.5	59.3	**40.5**	34.8	46.4
35-44	**50.0**	46.0	53.9	**42.4**	38.5	46.4
45-54	**42.8**	39.1	46.6	**46.6**	42.8	50.4
55-64	**32.2**	28.7	35.9	**57.5**	53.7	61.3
65+	N/A	N/A	N/A	N/A	N/A	N/A
All females	**49.9**	**47.6**	**52.2**	**42.6**	**40.3**	**44.9**
PERSONS						
18-24	**76.8**	70.7	82.0	**19.0**	14.3	24.9
25-34	**61.8**	57.1	66.2	**31.2**	27.0	35.7
35-44	**54.1**	50.8	57.4	**37.1**	34.0	40.4
45-54	**45.6**	42.6	48.6	**43.3**	40.4	46.3
55-64	**35.4**	32.5	38.4	**55.1**	52.1	58.2
65+	N/A	N/A	N/A	N/A	N/A	N/A
All persons	**54.6**	**52.8**	**56.4**	**37.3**	**35.6**	**39.0**

(a) The question was asked only of males and females aged 18-64 years.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has Relative Standard Error (RSE) of 25 to <50% and should be viewed with caution

Table 8.19 shows the proportion of persons aged 18–64 years who reported they could get a job through a relative or friend, by Department of Health region.

There were no regional differences, with the exception that males from Loddon Mallee Region (68.6 per cent) were more likely to be able to get a job through a relative or friend, compared with all Victorian males (59.3 per cent).

Table 8.19 Able to get a job through a relative or friend, by Department of Health region, 2010

	Yes			No		
		95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL
Eastern Metropolitan	**60.8**	54.5	66.7	**30.7**	25.5	36.5
North & West Metropolitan	**56.1**	50.3	61.6	**35.2**	30.0	40.8
Southern Metropolitan	**56.4**	50.5	62.1	**34.0**	28.7	39.7
All metropolitan males	**57.6**	54.1	60.9	**33.4**	30.3	36.7
Barwon-South Western	**61.1**	53.8	68.0	**28.1**	22.2	35.0
Gippsland	**61.6**	55.6	67.2	**28.5**	23.2	34.5
Grampians	**66.1**	59.1	72.5	**30.4**	24.2	37.5
Hume	**65.2**	57.5	72.1	**28.4**	21.9	35.8
Loddon Mallee	**68.6**	62.5	74.0	**24.7**	19.6	30.6
All rural males	**64.3**	61.0	67.4	**27.9**	25.0	30.9
All Victorian males	**59.3**	**56.6**	**62.0**	**32.0**	**29.5**	**34.5**
FEMALES						
Eastern Metropolitan	**51.3**	45.9	56.7	**42.5**	37.3	47.9
North & West Metropolitan	**46.7**	42.1	51.4	**44.8**	40.3	49.4
Southern Metropolitan	**51.8**	46.9	56.6	**41.5**	36.7	46.4
All metropolitan females	**49.3**	46.4	52.2	**43.4**	40.6	46.4
Barwon-South Western	**52.5**	46.8	58.2	**38.9**	33.4	44.6
Gippsland	**51.6**	45.8	57.4	**38.3**	33.0	43.9
Grampians	**49.2**	43.2	55.3	**44.9**	39.0	51.0
Hume	**51.7**	45.5	57.9	**40.2**	34.1	46.6
Loddon Mallee	**53.6**	49.1	58.2	**39.5**	35.0	44.1
All rural females	**52.4**	49.8	55.0	**39.6**	37.1	42.1
All Victorian females	**49.9**	**47.6**	**52.2**	**42.6**	**40.3**	**44.9**

The question was asked only of persons aged 18-64 years.
Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Trend over time

Table 8.20 shows the trend over time, of the proportion of males and females who could or could not get a job through a relative or friend if needed, between 2003 and 2010. The proportion of males and females who could or could not get a job through a relative or friend if needed remained unchanged between 2003 and 2010.

Table 8.20 Able to get a job through a relative or friend, 2003-2010

	Yes			No		
		95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
2003	**55.7**	53.2	58.2	**34.5**	32.2	36.9
2004	**53.8**	51.2	56.3	**36.2**	33.8	38.7
2005	**57.9**	55.4	60.5	**33.5**	31.1	36.0
2006	**58.6**	55.9	61.2	**33.1**	30.7	35.7
2007	**58.4**	55.5	61.2	**32.1**	29.4	34.9
2008	**58.3**	56.9	59.7	**32.3**	31.0	33.7
2009	**57.5**	55.0	60.1	**34.6**	32.1	37.1
2010	**59.3**	56.6	62.0	**32.0**	29.5	34.5
FEMALES						
2003	**47.7**	45.6	49.8	**40.1**	38.0	42.2
2004	**50.0**	48.0	52.0	**40.4**	38.5	42.4
2005	**53.1**	50.9	55.2	**36.8**	34.8	38.9
2006	**50.3**	48.2	52.5	**38.5**	36.4	40.5
2007	**50.6**	48.4	52.8	**38.7**	36.6	40.8
2008	**50.4**	49.3	51.6	**38.4**	37.2	39.5
2009	**50.7**	48.6	52.9	**41.4**	39.3	43.5
2010	**49.9**	47.6	52.2	**42.6**	40.3	44.9
PERSONS						
2003	**51.7**	50.0	53.3	**37.3**	35.8	38.9
2004	**51.9**	50.2	53.5	**38.3**	36.7	39.9
2005	**55.5**	53.8	57.1	**35.2**	33.6	36.8
2006	**54.5**	52.8	56.2	**35.8**	34.1	37.4
2007	**54.4**	52.6	56.3	**35.4**	33.7	37.2
2008	**54.3**	53.4	55.3	**35.3**	34.5	36.2
2009	**54.1**	52.5	55.8	**38.0**	36.4	39.6
2010	**54.6**	52.8	56.4	**37.3**	35.6	39.0

The question was asked only of persons aged 18-64 years.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Getting help from a volunteer organisation

Many volunteer organisations seek to address human, environmental and social needs within the community. An important principle of volunteering is respecting the rights, dignity and culture of those who are afforded material or other assistance. Survey respondents were asked whether they currently received any help from volunteer organisations.

Table 8.21 shows the proportion of persons who reported that they had received help from volunteer organisations, by age and sex. One in 20 persons (5.0 per cent) had received help from volunteer organisations. Similar proportions of people received such help in the age groups 18–24 years to 55–64 years. A higher proportion of males (10.9 per cent) and females (12.0 per cent) aged 65 years and over received such help, compared with all ages (4.4 and 5.5 per cent, respectively). There were no differences between the sexes.

Table 8.21 Received help from a volunteer organization, by age and sex, 2010

Age group (years)	Yes	95% CI		No	95% CI	
MALES	%	LL	UL	%	LL	UL
18-24	**	**	**	**95.5**	88.2	98.4
25-34	**	**	**	**96.2**	91.7	98.3
35-44	**2.3***	1.2	4.4	**97.7**	95.6	98.8
45-54	**3.8**	2.4	6.0	**96.2**	94.0	97.6
55-64	**2.9***	1.7	4.9	**96.0**	93.7	97.5
65+	**10.9**	8.5	13.8	**88.8**	85.8	91.2
All males	**4.4**	**3.6**	**5.5**	**95.1**	**93.9**	**96.0**
FEMALES						
18-24	**7.7***	3.9	14.5	**92.3**	85.5	96.1
25-34	**3.8***	2.1	7.0	**96.0**	92.8	97.8
35-44	**3.6**	2.4	5.4	**95.8**	93.8	97.1
45-54	**3.3**	2.2	4.9	**96.6**	95.0	97.7
55-64	**3.1**	2.0	4.7	**96.8**	95.3	97.9
65+	**12.0**	10.0	14.4	**87.4**	84.9	89.4
All females	**5.5**	**4.7**	**6.6**	**94.2**	**93.1**	**95.1**
PERSONS						
18-24	**6.1***	3.4	10.4	**93.9**	89.6	96.6
25-34	**3.1***	1.8	5.3	**96.1**	93.7	97.6
35-44	**2.9**	2.1	4.2	**96.7**	95.4	97.7
45-54	**3.6**	2.6	4.8	**96.4**	95.1	97.3
55-64	**3.0**	2.2	4.2	**96.4**	95.1	97.4
65+	**11.5**	9.9	13.3	**88.0**	86.2	89.6
All persons	**5.0**	**4.3**	**5.7**	**94.6**	**93.9**	**95.3**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Table 8.22 shows the proportion of persons who reported that they had received help from volunteer organisations, by Department of Health region. There were no regional differences in males and females in the proportion of persons who reported that they had received help from volunteer organisations.

Table 8.22 Received help from a volunteer organization, by Department of Health region, 2010

	Yes			No		
		95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL
Eastern Metropolitan	**4.0**	2.5	6.5	**95.2**	92.7	96.9
North & West Metropolitan	**5.1**	3.3	7.9	**93.9**	90.7	96.1
Southern Metropolitan	**3.6**	2.2	5.8	**96.1**	93.8	97.6
All metropolitan males	**4.3**	3.3	5.7	**95.0**	93.5	96.2
Barwon-South Western	**3.9**	2.5	6.0	**96.1**	94.0	97.5
Gippsland	**4.6**	2.9	7.4	**95.2**	92.4	97.0
Grampians	**4.4**	2.7	6.9	**95.5**	92.9	97.1
Hume	**4.9***	3.1	7.6	**94.9**	92.1	96.7
Loddon Mallee	**4.7***	2.2	9.5	**95.3**	90.5	97.8
All rural males	**4.4**	3.5	5.6	**95.5**	94.3	96.4
All Victorian males	**4.4**	**3.6**	**5.5**	**95.1**	**93.9**	**96.0**
FEMALES						
Eastern Metropolitan	**4.5**	3.0	6.6	**95.5**	93.4	97.0
North & West Metropolitan	**6.4**	4.5	9.1	**93.3**	90.7	95.3
Southern Metropolitan	**5.1**	3.6	7.2	**94.5**	92.3	96.1
All metropolitan females	**5.4**	4.4	6.8	**94.3**	93.0	95.4
Barwon-South Western	**3.9**	2.6	5.7	**96.1**	94.3	97.4
Gippsland	**5.6**	3.7	8.4	**93.5**	90.5	95.6
Grampians	**5.0**	3.4	7.3	**94.0**	91.3	95.9
Hume	**8.7**	5.7	13.3	**91.0**	86.5	94.1
Loddon Mallee	**6.2**	4.4	8.6	**93.5**	91.1	95.4
All rural females	**5.7**	4.7	6.8	**93.9**	92.7	94.9
All Victorian females	**5.5**	**4.7**	**6.6**	**94.2**	**93.1**	**95.1**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Trend over time

Table 8.23 shows the trend over time of the proportion of males and females who reported that they had received help from volunteer organisations between 2003 and 2010. The proportion of males and females who reported that they had received help from volunteer organisations remained unchanged between 2003 and 2010.

Table 8.23 Received help from a volunteer organisation, 2003-2010

	Yes			No		
		95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
2003	**7.4**	6.2	8.8	**92.3**	90.9	93.4
2004	**7.0**	5.9	8.3	**92.9**	91.6	94.0
2005	**4.1**	3.3	5.1	**95.6**	94.5	96.5
2006	**5.9**	4.6	7.4	**93.8**	92.3	95.1
2007	**5.4**	4.1	6.9	**94.2**	92.7	95.5
2008	**5.7**	5.1	6.3	**93.9**	93.3	94.5
2009	**5.1**	4.2	6.2	**94.2**	93.1	95.2
2010	**4.4**	3.6	5.5	**95.1**	93.9	96.0
FEMALES						
2003	**8.2**	7.2	9.3	**91.6**	90.5	92.6
2004	**7.2**	6.3	8.1	**92.4**	91.4	93.3
2005	**5.0**	4.3	5.9	**94.6**	93.7	95.4
2006	**5.3**	4.5	6.2	**94.2**	93.2	95.1
2007	**5.1**	4.4	6.0	**94.7**	93.8	95.4
2008	**5.9**	5.4	6.3	**93.8**	93.4	94.3
2009	**4.8**	4.1	5.6	**94.9**	94.1	95.6
2010	**5.5**	4.7	6.6	**94.2**	93.1	95.1
PERSONS						
2003	**7.9**	7.1	8.7	**91.8**	91.0	92.6
2004	**7.0**	6.3	7.8	**92.7**	91.9	93.4
2005	**4.6**	4.1	5.3	**95.1**	94.4	95.7
2006	**5.6**	4.8	6.5	**94.0**	93.1	94.8
2007	**5.3**	4.5	6.2	**94.4**	93.5	95.2
2008	**5.8**	5.4	6.2	**93.9**	93.5	94.2
2009	**5.0**	4.4	5.6	**94.5**	93.8	95.2
2010	**5.0**	4.3	5.7	**94.6**	93.9	95.3

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Support groups

There are a range of support groups in which individuals support one another to deal with an issue they have in common, sometimes with the aid of a facilitator, counsellor or other professional. Survey respondents were asked whether they had been to any support group meeting over the past two years.

Table 8.24 presents data for persons who had attended a support group meeting within the past two years, by age and sex. One in 10 persons (9.2 per cent) reported they had attended a support group meeting in the past two years. Females were no more likely (10.0 per cent) than males (8.4 per cent) to have attended a support group meeting. The proportion of persons who had attended a support group meeting within the past two years did not differ by age group.

Table 8.24 Attended a support group meeting, by age and sex, 2010

Age group (years)	Yes	95% CI		No	95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
18-24	**6.6***	2.9	14.4	**93.4**	85.6	97.1
25-34	**9.1**	5.6	14.3	**90.9**	85.7	94.4
35-44	**7.6**	5.3	10.8	**92.1**	88.8	94.5
45-54	**8.7**	6.5	11.6	**91.3**	88.4	93.5
55-64	**8.7**	6.4	11.6	**91.3**	88.3	93.5
65+	**10.6**	8.4	13.2	**88.9**	86.2	91.2
All males	**8.4**	**7.2**	**9.9**	**91.4**	**89.9**	**92.7**
FEMALES						
18-24	**4.3***	2.0	8.9	**94.3**	89.2	97.1
25-34	**14.8**	11.0	19.5	**85.2**	80.5	89.0
35-44	**10.6**	8.4	13.3	**89.2**	86.5	91.4
45-54	**8.5**	6.7	10.7	**91.5**	89.3	93.3
55-64	**11.8**	9.7	14.4	**88.2**	85.6	90.3
65+	**9.5**	7.8	11.5	**90.2**	88.2	91.9
All females	**10.0**	**8.9**	**11.2**	**89.7**	**88.5**	**90.8**
PERSONS						
18-24	**5.5***	3.1	9.6	**93.8**	89.6	96.4
25-34	**11.9**	9.2	15.3	**88.1**	84.7	90.8
35-44	**9.1**	7.5	11.1	**90.6**	88.6	92.3
45-54	**8.6**	7.1	10.3	**91.4**	89.7	92.9
55-64	**10.3**	8.7	12.2	**89.7**	87.8	91.3
65+	**10.0**	8.6	11.5	**89.7**	88.0	91.1
All persons	**9.2**	**8.4**	**10.1**	**90.6**	**89.6**	**91.4**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Table 8.25 presents data for persons who had attended a support group meeting within the past two years, by Department of Health region. A higher proportion of females in the rural regions (12.7 per cent) reported that they had attended a support group meeting in the past two years, compared with the metropolitan regions (8.9 per cent). There was also a higher proportion of females from Grampians Region (17.0 per cent) who had attended a support group, compared with all Victorian females (10.0 per cent). There were no regional differences in males.

Table 8.25 Attended a support group meeting in the past two years, by Department of Health region, 2010

	Yes			No		
		95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL
Eastern Metropolitan	**9.9**	6.8	14.1	**89.5**	85.2	92.6
North & West Metropolitan	**7.0**	4.8	10.1	**92.8**	89.7	95.0
Southern Metropolitan	**7.4**	5.0	10.7	**92.6**	89.3	95.0
All metropolitan males	**7.9**	6.3	9.7	**91.9**	90.0	93.5
Barwon-South Western	**10.4**	7.5	14.3	**89.6**	85.7	92.5
Gippsland	**8.5**	5.8	12.2	**91.5**	87.8	94.2
Grampians	**8.2**	5.8	11.5	**91.7**	88.4	94.1
Hume	**10.0**	7.2	13.8	**90.0**	86.2	92.8
Loddon Mallee	**10.5**	7.3	15.0	**89.5**	85.0	92.7
All rural males	**9.5**	8.1	11.1	**90.5**	88.9	91.9
All Victorian males	**8.4**	**7.2**	**9.9**	**91.4**	**89.9**	**92.7**
FEMALES						
Eastern Metropolitan	**11.0**	8.2	14.5	**88.5**	84.9	91.4
North & West Metropolitan	**7.4**	5.6	9.9	**92.5**	90.0	94.4
Southern Metropolitan	**9.3**	7.3	11.9	**90.0**	87.2	92.2
All metropolitan females	**8.9**	7.6	10.4	**90.8**	89.2	92.1
Barwon-South Western	**8.7**	6.6	11.3	**91.2**	88.6	93.3
Gippsland	**11.3**	8.5	14.9	**88.6**	85.0	91.4
Grampians	**17.0**	13.3	21.6	**82.8**	78.2	86.6
Hume	**14.6**	10.9	19.2	**85.2**	80.6	88.9
Loddon Mallee	**13.7**	11.0	17.0	**86.3**	83.0	89.0
All rural females	**12.7**	11.3	14.3	**87.2**	85.6	88.6
All Victorian females	**10.0**	**8.9**	**11.2**	**89.7**	**88.5**	**90.8**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Trend over time

Table 8.26 shows the trend over time of the proportion of males and females who reported having attended a support group meeting in the previous two years, between 2003 and 2010. The proportion of males and females who had or had not attended a support group meeting over the previous two years remained unchanged between 2003 and 2010.

Table 8.26 Attended a support group meeting in the past two years, 2003-2010

	Yes			No		
		95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
2003	**8.5**	7.3	9.8	**91.4**	90.1	92.6
2004	**9.1**	7.8	10.5	**90.9**	89.5	92.2
2005	**7.9**	6.8	9.2	**92.0**	90.6	93.1
2006	**9.7**	8.3	11.4	**90.2**	88.5	91.7
2007	**8.8**	7.5	10.3	**91.1**	89.6	92.5
2008	**9.2**	8.5	10.0	**90.7**	89.9	91.4
2009	**8.8**	7.6	10.1	**91.1**	89.8	92.3
2010	**8.4**	7.2	9.9	**91.4**	89.9	92.7
FEMALES						
2003	**11.6**	10.5	12.8	**88.3**	87.0	89.4
2004	**10.4**	9.5	11.5	**89.4**	88.3	90.4
2005	**11.0**	9.9	12.3	**88.9**	87.6	90.0
2006	**11.5**	10.3	12.9	**88.4**	87.0	89.6
2007	**11.3**	10.2	12.5	**88.5**	87.3	89.6
2008	**10.8**	10.2	11.5	**88.9**	88.3	89.6
2009	**10.6**	9.6	11.8	**89.3**	88.2	90.3
2010	**10.0**	8.9	11.2	**89.7**	88.5	90.8
PERSONS						
2003	**10.0**	9.2	10.9	**89.8**	88.9	90.7
2004	**9.8**	9.0	10.6	**90.2**	89.3	91.0
2005	**9.5**	8.7	10.4	**90.4**	89.5	91.2
2006	**10.6**	9.7	11.7	**89.3**	88.2	90.3
2007	**10.1**	9.2	11.0	**89.8**	88.8	90.7
2008	**10.0**	9.5	10.5	**89.8**	89.3	90.3
2009	**9.7**	8.9	10.6	**90.2**	89.3	91.0
2010	**9.2**	8.4	10.1	**90.6**	89.6	91.4

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Trust and safety

Trust is important for positive relationships between individuals and among groups. Trust in others is sometimes defined with reference to the type of relationship involved. The concept of interpersonal trust refers to trust between individuals who are known to one another. To describe social wellbeing, social trust (which refers to trust among casual acquaintances or strangers in everyday social interaction) is sometimes distinguished from civic trust (which refers to trust in public or high–profile institutions, and the respect that citizens are accorded in their relationships with institutions). The survey includes indicators of social and civic trust.

Feelings of trust

Survey respondents were asked if they agreed that most people can be trusted. Table 8.27 shows the data, by age and sex. More than one-third (35.1 per cent) of persons aged 18 years and over agreed that most people 'definitely' can be trusted, while a further four in 10 persons (42.2 per cent) agreed that most people can be trusted 'sometimes'. A higher proportion of males (37.8 per cent) compared with females (32.6 per cent) agreed that most people 'definitely' can be trusted. Similarly, a higher proportion of older males and

females aged 55 years and over agreed that most people can be trusted, compared with those aged 18 to 34 years.

Table 8.27 Feelings of trust, by age and sex, 2010

Age group	No, not at all			Not often			Sometimes			Yes, definitely		
(years)		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**13.3***	7.6	22.3	**8.9***	4.6	16.5	**51.1**	41.1	61.0	**25.3**	17.8	34.6
25-34	**10.2**	6.5	15.6	**14.5**	9.9	20.7	**46.9**	39.6	54.3	**27.5**	21.5	34.5
35-44	**8.7**	6.1	12.4	**12.9**	9.8	16.8	**43.2**	38.0	48.6	**34.1**	29.2	39.2
45-54	**6.0**	4.1	8.8	**9.9**	7.4	13.1	**40.9**	36.4	45.5	**42.2**	37.8	46.7
55-64	**6.7**	4.6	9.7	**8.1**	5.8	11.2	**33.9**	29.5	38.6	**49.0**	44.2	53.8
65+	**8.9**	6.7	11.7	**9.6**	7.3	12.5	**28.6**	25.0	32.5	**49.4**	45.2	53.5
All males	**9.2**	**7.7**	**10.9**	**10.7**	**9.2**	**12.5**	**40.6**	**38.2**	**43.2**	**37.8**	**35.5**	**40.1**
FEMALES												
18-24	**12.3**	7.6	19.3	**13.7**	8.8	20.9	**52.8**	44.0	61.3	**21.2**	14.8	29.3
25-34	**11.2**	8.0	15.5	**15.6**	11.6	20.6	**51.4**	45.5	57.3	**21.8**	17.3	27.0
35-44	**7.9**	6.0	10.4	**13.2**	10.7	16.2	**44.0**	40.0	47.9	**34.2**	30.6	38.1
45-54	**7.8**	5.9	10.1	**11.9**	9.6	14.6	**43.0**	39.3	46.8	**35.8**	32.2	39.5
55-64	**7.0**	5.2	9.4	**12.8**	10.4	15.7	**35.8**	32.2	39.5	**42.8**	39.0	46.6
65+	**10.1**	8.2	12.5	**10.8**	8.7	13.2	**33.8**	30.8	37.1	**40.1**	36.9	43.4
All females	**9.3**	**8.2**	**10.7**	**12.9**	**11.5**	**14.4**	**43.6**	**41.6**	**45.6**	**32.6**	**30.9**	**34.5**
PERSONS												
18-24	**12.8**	8.9	18.2	**11.2**	7.7	16.1	**51.9**	45.2	58.5	**23.3**	18.2	29.3
25-34	**10.7**	8.1	14.0	**15.0**	11.9	18.9	**49.2**	44.4	53.9	**24.6**	20.8	28.9
35-44	**8.3**	6.6	10.4	**13.0**	11.0	15.4	**43.6**	40.3	46.9	**34.2**	31.1	37.4
45-54	**6.9**	5.5	8.6	**10.9**	9.2	12.9	**41.9**	39.0	44.9	**38.9**	36.1	41.9
55-64	**6.9**	5.4	8.7	**10.5**	8.7	12.5	**34.8**	32.0	37.8	**45.8**	42.8	48.9
65+	**9.6**	8.1	11.3	**10.2**	8.7	12.1	**31.5**	29.1	34.0	**44.2**	41.7	46.9
All persons	**9.2**	**8.3**	**10.3**	**11.8**	**10.8**	**12.9**	**42.2**	**40.6**	**43.8**	**35.1**	**33.7**	**36.6**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Table 8.28 shows the data, by sex and Department of Health region. A higher proportion of males living in the rural regions (44.4 per cent) agreed that most people can be trusted compared with males living in the metropolitan regions (35.5 per cent). There was a higher proportion of males from Barwon-South Western Region (48.3 per cent) who agreed that most people can 'definitely' be trusted, compared with all Victoria males (37.8 per cent). By contrast, there was a lower proportion of males from North and West Metropolitan Region who agreed that most people can 'definitely' be trusted. There were no regional differences in females.

Table 8.28 Feelings of trust, by Department of Health region, 2010

	No, not at all			Not often			Sometimes			Yes, definitely		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**6.6***	4.0	10.8	**10.3**	7.2	14.5	**39.0**	33.3	45.1	**42.3**	36.8	48.1
North & West Metropolitan	**11.5**	8.5	15.5	**13.3**	10.1	17.4	**43.1**	38.1	48.2	**29.2**	24.8	34.1
Southern Metropolitan	**10.5**	7.3	14.9	**10.0**	7.0	14.1	**40.8**	35.4	46.5	**37.5**	32.8	42.4
All metropolitan males	**9.9**	8.0	12.2	**11.3**	9.4	13.5	**41.4**	38.3	44.6	**35.5**	32.7	38.5
Barwon-South Western	**8.3**	5.1	13.2	**7.2**	4.8	10.7	**34.9**	29.2	41.0	**48.3**	42.0	54.8
Gippsland	**6.9***	4.0	11.6	**9.6**	6.3	14.4	**36.3**	30.0	43.1	**46.1**	39.7	52.6
Grampians	**9.5**	6.7	13.4	**10.8**	7.1	16.1	**39.0**	32.7	45.7	**39.5**	33.7	45.7
Hume	**4.7**	2.9	7.5	**10.2**	6.9	14.8	**43.0**	37.1	49.2	**41.2**	35.4	47.4
Loddon Mallee	**7.3**	4.4	11.7	**7.3**	5.0	10.5	**39.7**	33.7	46.0	**45.1**	39.1	51.2
All rural males	**7.1**	5.6	9.0	**9.0**	7.4	10.8	**38.5**	35.4	41.6	**44.4**	41.4	47.5
All Victorian males	**9.2**	**7.7**	**10.9**	**10.7**	**9.2**	**12.5**	**40.6**	**38.2**	**43.2**	**37.8**	**35.5**	**40.1**
FEMALES												
Eastern Metropolitan	**7.7**	5.3	11.0	**10.5**	8.0	13.6	**42.4**	37.8	47.2	**38.0**	33.7	42.5
North & West Metropolitan	**11.5**	9.2	14.4	**15.3**	12.5	18.5	**41.4**	37.4	45.5	**29.6**	26.1	33.4
Southern Metropolitan	**9.4**	6.9	12.5	**15.7**	12.6	19.4	**43.4**	39.0	48.0	**30.0**	26.3	34.0
All metropolitan females	**9.7**	8.2	11.4	**14.0**	12.2	15.9	**42.4**	39.9	45.0	**32.2**	29.9	34.5
Barwon-South Western	**9.6**	6.7	13.4	**11.3**	8.2	15.4	**45.8**	40.7	51.0	**32.5**	28.3	37.0
Gippsland	**7.8**	5.7	10.7	**8.6**	6.3	11.7	**46.3**	41.3	51.4	**35.5**	30.8	40.5
Grampians	**10.3**	7.9	13.5	**8.7**	6.3	11.8	**49.9**	44.9	54.8	**30.1**	25.9	34.7
Hume	**7.9**	5.1	12.0	**10.6**	7.4	15.0	**47.2**	41.9	52.6	**33.1**	28.3	38.2
Loddon Mallee	**9.4**	6.8	12.7	**8.8**	6.3	12.1	**44.0**	39.5	48.6	**36.9**	32.8	41.1
All rural females	**8.5**	7.2	10.0	**9.8**	8.4	11.4	**46.9**	44.5	49.2	**33.7**	31.7	35.8
All Victorian females	**9.3**	**8.2**	**10.7**	**12.9**	**11.5**	**14.4**	**43.6**	**41.6**	**45.6**	**32.6**	**30.9**	**34.5**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Trend over time

Table 8.29 shows the trend over time of the proportion of persons who agreed, or did not agree, that most people can be trusted. The proportion of males and females who did or did not agree that most people could be trusted remained unchanged between 2005 and 2010.

Table 8.29 Feelings of trust, by sex, 2005-2010

	No			Not often			Sometimes			Yes		
		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
2005	**9.1**	7.7	10.7	**7.7**	6.5	9.1	**40.4**	38.1	42.9	**41.7**	39.3	44.1
2006	**8.5**	7.2	10.1	**9.3**	7.8	11.0	**39.5**	37.0	42.0	**41.5**	39.2	43.9
2007	**6.8**	5.6	8.3	**8.7**	7.3	10.3	**45.6**	43.0	48.2	**37.4**	35.1	39.8
2008	**8.4**	7.7	9.3	**10.6**	9.7	11.5	**38.2**	36.9	39.5	**41.4**	40.1	42.7
2009	**9.3**	8.0	10.8	**9.1**	7.8	10.6	**40.9**	38.6	43.2	**39.4**	37.2	41.6
2010	**9.2**	7.7	10.9	**10.7**	9.2	12.5	**40.6**	38.2	43.2	**37.8**	35.5	40.1
FEMALES												
2005	**9.5**	8.3	10.8	**9.8**	8.6	11.0	**47.7**	45.8	49.7	**31.7**	30.0	33.4
2006	**10.5**	9.3	11.8	**9.9**	8.7	11.3	**42.9**	40.9	44.9	**35.6**	33.7	37.4
2007	**7.7**	6.6	8.9	**9.6**	8.4	11.0	**48.6**	46.5	50.6	**32.2**	30.5	34.1
2008	**10.4**	9.7	11.1	**11.8**	11.1	12.6	**42.4**	41.3	43.4	**33.8**	32.8	34.8
2009	**10.1**	9.0	11.3	**11.2**	10.0	12.5	**44.4**	42.5	46.3	**33.2**	31.5	34.9
2010	**9.3**	8.2	10.7	**12.9**	11.5	14.4	**43.6**	41.6	45.6	**32.6**	30.9	34.5
PERSONS												
2005	**9.3**	8.4	10.3	**8.7**	7.9	9.7	**44.2**	42.7	45.8	**36.5**	35.1	38.0
2006	**9.5**	8.6	10.6	**9.5**	8.6	10.6	**41.3**	39.7	42.9	**38.4**	36.9	40.0
2007	**7.3**	6.4	8.2	**9.2**	8.2	10.2	**47.1**	45.5	48.7	**34.8**	33.3	36.2
2008	**9.4**	8.9	10.0	**11.2**	10.6	11.8	**40.4**	39.5	41.2	**37.5**	36.7	38.3
2009	**9.7**	8.8	10.6	**10.2**	9.3	11.1	**42.7**	41.2	44.1	**36.2**	34.8	37.6
2010	**9.2**	8.3	10.3	**11.8**	10.8	12.9	**42.2**	40.6	43.8	**35.1**	33.7	36.6

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Opportunities to have a say

Civic trust in populations can be measured by the extent to which individuals feel they have an opportunity to have a say and feel valued by the society to which they belong. The survey collected information on whether respondents felt they had opportunities to have a real say on issues that are important to them.

Table 8.30 shows the data, by age and sex. Almost four in 10 persons (42.3 per cent) felt they 'definitely' had opportunities to have a real say on issues that were important to them, while a further 30.2 per cent felt that 'sometimes' there were opportunities to have a say. More than one in 10 persons (13.4 per cent) felt they did not, at all, feel they had opportunities to have a real say on issues that were important to them. There were no differences between the sexes. Males and persons aged 25 to 34 years were least likely, while those aged 55 to 64 years were most likely to feel that they 'definitely' had opportunities to have a real say, compared with all ages.

Table 8.30 Opportunities to have a say, by age and sex, 2010

Age group	No, not at all			Not often			Sometimes			Yes, definitely		
(years)		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**9.4***	5.0	17.0	**14.0***	8.3	22.6	**30.2**	22.0	39.8	**46.5**	36.7	56.6
25-34	**17.7**	12.7	24.2	**16.7**	11.8	23.0	**37.7**	30.8	45.1	**27.2**	21.3	34.1
35-44	**14.7**	11.2	18.9	**9.2**	6.5	12.9	**32.4**	27.6	37.5	**41.4**	36.2	46.7
45-54	**16.0**	12.8	19.7	**10.2**	7.7	13.4	**27.9**	24.0	32.2	**42.5**	38.1	47.1
55-64	**14.9**	11.8	18.7	**9.4**	7.0	12.5	**25.0**	21.0	29.5	**48.7**	43.9	53.5
65+	**17.2**	14.2	20.7	**10.9**	8.6	13.9	**23.4**	20.0	27.2	**43.2**	39.1	47.3
All males	**15.3**	**13.6**	**17.2**	**11.7**	**10.1**	**13.5**	**29.5**	**27.3**	**31.9**	**41.1**	**38.7**	**43.6**
FEMALES												
18-24	**11.8**	7.3	18.5	**8.1***	4.4	14.4	**29.2**	22.0	37.5	**48.3**	39.7	57.0
25-34	**12.6**	9.0	17.2	**12.4**	8.9	17.0	**36.1**	30.6	41.9	**37.3**	31.8	43.2
35-44	**12.2**	9.8	15.2	**11.7**	9.3	14.5	**32.6**	29.0	36.5	**41.3**	37.5	45.2
45-54	**9.9**	7.8	12.5	**10.6**	8.4	13.2	**33.5**	30.0	37.2	**43.5**	39.8	47.3
55-64	**10.5**	8.3	13.1	**11.7**	9.4	14.5	**26.8**	23.6	30.3	**46.8**	43.0	50.6
65+	**11.3**	9.3	13.7	**8.9**	7.2	11.1	**26.2**	23.3	29.2	**46.2**	42.9	49.6
All females	**11.6**	**10.3**	**13.1**	**10.8**	**9.6**	**12.2**	**30.7**	**28.9**	**32.7**	**43.4**	**41.4**	**45.5**
PERSONS												
18-24	**10.5**	7.2	15.3	**11.1**	7.5	16.2	**29.7**	24.1	36.0	**47.4**	40.7	54.1
25-34	**15.1**	11.9	19.0	**14.5**	11.4	18.3	**36.9**	32.4	41.6	**32.3**	28.1	36.7
35-44	**13.4**	11.3	16.0	**10.4**	8.6	12.7	**32.5**	29.5	35.7	**41.3**	38.1	44.6
45-54	**12.9**	11.0	15.1	**10.4**	8.7	12.4	**30.8**	28.1	33.5	**43.0**	40.1	46.0
55-64	**12.7**	10.7	14.9	**10.6**	8.8	12.6	**25.9**	23.3	28.7	**47.7**	44.7	50.8
65+	**14.0**	12.2	16.0	**9.8**	8.3	11.5	**24.9**	22.7	27.3	**44.8**	42.3	47.5
All persons	**13.4**	**12.3**	**14.6**	**11.2**	**10.2**	**12.4**	**30.2**	**28.7**	**31.7**	**42.3**	**40.7**	**43.9**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Table 8.31 shows the proportion of persons who felt there were opportunities to have a real say on issues that were important to them, by Department of Health region. There were no regional differences, with the exception that a higher proportion of males from Gippsland Region (51.9 per cent) felt that there were 'definitely' opportunities to have a say on issues that were important to them compared with all Victorian males (41.1 per cent).

Table 8.31 Opportunities to have a say, by Department of Health region, 2010

	No, not at all			Not often			Sometimes			Yes, definitely		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**11.8**	8.4	16.4	**17.0**	12.7	22.5	**31.1**	25.7	37.0	**38.4**	32.8	44.4
North & West Metropolitan	**17.7**	14.1	22.1	**10.5**	7.6	14.5	**27.8**	23.6	32.5	**40.5**	35.7	45.5
Southern Metropolitan	**17.5**	13.7	22.0	**11.8**	8.6	16.0	**28.4**	23.5	33.8	**39.8**	34.6	45.4
All metropolitan males	**16.1**	13.9	18.5	**12.3**	10.3	14.7	**29.1**	26.2	32.0	**39.9**	36.9	43.0
Barwon-South Western	**11.6**	8.0	16.4	**12.4**	8.7	17.5	**31.8**	26.1	38.2	**42.6**	36.7	48.9
Gippsland	**10.5**	8.1	13.6	**8.4**	5.7	12.3	**27.2**	21.9	33.2	**51.9**	45.6	58.3
Grampians	**13.5**	9.4	19.0	**12.8**	9.3	17.5	**30.3**	24.8	36.5	**42.8**	36.4	49.5
Hume	**15.3**	11.2	20.6	**6.1***	3.7	9.9	**30.7**	24.5	37.6	**46.8**	40.1	53.7
Loddon Mallee	**12.6**	9.6	16.3	**9.7**	6.5	14.3	**33.4**	27.9	39.4	**42.8**	36.7	49.1
All rural males	**12.8**	11.0	14.8	**10.0**	8.2	12.1	**30.7**	27.8	33.7	**45.2**	42.1	48.3
All Victorian males	**15.3**	**13.6**	**17.2**	**11.7**	**10.1**	**13.5**	**29.5**	**27.3**	**31.9**	**41.1**	**38.7**	**43.6**
FEMALES												
Eastern Metropolitan	**11.6**	8.7	15.4	**10.7**	8.2	14.0	**27.9**	24.2	32.0	**46.1**	41.4	50.9
North & West Metropolitan	**11.8**	9.4	14.6	**11.8**	9.3	14.8	**31.2**	27.5	35.2	**40.4**	36.4	44.5
Southern Metropolitan	**14.3**	11.3	18.0	**11.1**	8.6	14.3	**28.7**	24.9	32.8	**42.4**	38.0	47.0
All metropolitan females	**12.5**	10.8	14.3	**11.3**	9.7	13.0	**29.8**	27.5	32.2	**42.6**	40.1	45.2
Barwon-South Western	**8.2**	5.5	12.0	**8.8**	6.6	11.6	**36.6**	31.6	41.9	**44.7**	39.6	50.0
Gippsland	**8.1**	5.6	11.4	**8.5**	6.3	11.3	**33.8**	28.8	39.1	**47.0**	41.8	52.4
Grampians	**7.0**	4.6	10.6	**14.0**	10.8	18.0	**29.4**	24.6	34.6	**47.1**	41.9	52.4
Hume	**10.5**	7.5	14.7	**8.3**	6.1	11.2	**33.2**	28.2	38.6	**45.7**	40.3	51.2
Loddon Mallee	**11.4**	8.9	14.6	**9.8**	7.3	13.0	**33.3**	29.1	37.8	**44.0**	39.4	48.6
All rural females	**9.2**	7.9	10.7	**9.5**	8.2	11.0	**33.7**	31.4	36.0	**45.5**	43.2	47.9
All Victorian females	**11.6**	**10.3**	**13.1**	**10.8**	**9.6**	**12.2**	**30.7**	**28.9**	**32.7**	**43.4**	**41.4**	**45.5**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
*Estimate has Relative Standard Error (RSE) of 25 to <50% and should be viewed with caution

Trend over time

Table 8.32 shows the trend over time of males and females who felt, or did not feel, there were opportunities to have a real say about issues that were important to them, between 2004 and 2010. The proportion of males and females who felt, or did not feel that there were opportunities to have a real say on matters that were important to them remained unchanged between 2004 and 2010.

Table 8.32 Opportunities to have a say, by sex, 2004-2010

	No			Not often			Sometimes			Yes		
		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
2004	**15.9**	14.2	17.9	**12.4**	11.0	14.1	**25.0**	23.0	27.1	**44.8**	42.4	47.2
2005	**14.7**	13.1	16.5	**12.9**	11.3	14.7	**32.7**	30.4	35.1	**37.6**	35.2	40.0
2006	**15.8**	14.1	17.7	**12.0**	10.5	13.7	**28.7**	26.5	31.1	**41.5**	39.0	44.0
2007	**13.5**	11.8	15.3	**13.6**	12.0	15.5	**31.6**	29.3	34.0	**38.5**	36.0	41.0
2008	**13.6**	12.7	14.5	**10.9**	10.1	11.8	**29.8**	28.5	31.1	**43.2**	41.8	44.5
2009	**14.0**	12.5	15.6	**12.5**	11.1	14.2	**31.8**	29.6	34.0	**39.4**	37.2	41.7
2010	**15.3**	13.6	17.2	**11.7**	10.1	13.5	**29.5**	27.3	31.9	**41.1**	38.7	43.6
FEMALES												
2004	**11.7**	10.5	13.0	**10.5**	9.3	11.7	**27.8**	26.1	29.5	**47.1**	45.2	49.1
2005	**10.9**	9.7	12.2	**11.9**	10.6	13.3	**34.5**	32.6	36.5	**40.4**	38.5	42.3
2006	**11.1**	10.0	12.4	**11.8**	10.5	13.1	**30.6**	28.8	32.5	**44.3**	42.3	46.3
2007	**10.1**	8.9	11.4	**10.6**	9.4	11.9	**37.7**	35.7	39.7	**39.0**	37.1	41.0
2008	**11.0**	10.4	11.7	**10.3**	9.6	11.0	**33.4**	32.4	34.5	**41.6**	40.5	42.6
2009	**11.2**	10.1	12.5	**9.5**	8.5	10.8	**36.3**	34.4	38.1	**40.1**	38.3	42.0
2010	**11.6**	10.3	13.1	**10.8**	9.6	12.2	**30.7**	28.9	32.7	**43.4**	41.4	45.5
PERSONS												
2004	**13.8**	12.7	15.0	**11.5**	10.5	12.5	**26.4**	25.0	27.7	**45.9**	44.4	47.5
2005	**12.8**	11.7	13.9	**12.4**	11.3	13.5	**33.7**	32.2	35.3	**38.9**	37.4	40.4
2006	**13.4**	12.4	14.6	**11.7**	10.7	12.8	**29.7**	28.2	31.2	**43.0**	41.4	44.7
2007	**11.7**	10.7	12.9	**12.1**	11.1	13.2	**34.6**	33.1	36.2	**38.7**	37.2	40.3
2008	**12.3**	11.7	12.9	**10.6**	10.0	11.1	**31.7**	30.8	32.5	**42.3**	41.5	43.2
2009	**12.5**	11.6	13.5	**11.0**	10.1	12.1	**34.0**	32.6	35.5	**39.8**	38.4	41.3
2010	**13.4**	12.3	14.6	**11.2**	10.2	12.4	**30.2**	28.7	31.7	**42.3**	40.7	43.9

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Feeling valued by society

A second indicator of civic trust is the extent to which people feel they are valued by society. Survey respondents were asked if they felt valued by society. Table 8.33 shows the data by age and sex. More than half of all persons (52.0 per cent) felt 'definitely' valued by society, while a further 30.1 per cent felt 'sometimes' valued by society. About one in eight persons (12.2 per cent) felt that they were not or not often valued by society. There were no differences between the sexes. There were also few differences by age, with the notable exception that males (12.5 per cent) and persons (11.0 per cent) aged 65 years and over were more likely to report not feeling valued by society at all, compared with all ages (7.6 per cent).

Table 8.33 Feeling valued by society, by age and sex, 2010

Age group	No, not at all			Not often			Sometimes			Yes, definitely		
(years)		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**	**	**	**	**	**	**39.9**	30.5	50.1	**50.5**	40.5	60.4
25-34	**6.6***	3.8	11.4	**5.5***	2.9	10.2	**40.5**	33.5	48.0	**45.5**	38.3	52.9
35-44	**5.9**	3.8	9.0	**3.4***	1.9	5.7	**27.5**	23.1	32.5	**57.2**	51.9	62.4
45-54	**11.1**	8.4	14.4	**3.5**	2.1	5.6	**26.5**	22.6	30.7	**52.3**	47.7	56.9
55-64	**8.0**	5.8	11.1	**6.0**	4.1	8.8	**24.1**	20.2	28.5	**55.0**	50.2	59.8
65+	**12.5**	10.0	15.6	**4.3**	2.9	6.5	**23.3**	19.9	27.1	**49.9**	45.7	54.1
All males	**8.2**	**7.0**	**9.7**	**3.9**	**3.1**	**4.8**	**30.1**	**27.8**	**32.6**	**51.8**	**49.3**	**54.3**
FEMALES												
18-24	**6.0***	2.9	12.2	**5.6***	2.8	11.0	**34.9**	27.2	43.5	**51.9**	43.2	60.5
25-34	**5.9**	3.7	9.5	**7.7**	5.0	11.6	**35.2**	29.7	41.1	**47.9**	42.0	53.8
35-44	**6.8**	5.0	9.3	**3.8**	2.6	5.7	**31.9**	28.3	35.7	**53.9**	49.9	57.9
45-54	**5.0**	3.6	6.9	**5.6**	4.0	7.7	**28.4**	25.1	32.0	**54.9**	51.1	58.6
55-64	**7.2**	5.4	9.5	**4.3**	3.0	6.1	**25.5**	22.3	29.0	**57.5**	53.7	61.3
65+	**9.7**	7.8	12.0	**4.9**	3.6	6.5	**25.6**	22.7	28.6	**49.0**	45.6	52.3
All females	**7.0**	**6.0**	**8.2**	**5.4**	**4.5**	**6.5**	**30.2**	**28.3**	**32.1**	**52.2**	**50.2**	**54.3**
PERSONS												
18-24	**5.1***	2.8	9.2	**3.3***	1.8	6.1	**37.5**	31.2	44.1	**51.1**	44.5	57.8
25-34	**6.3**	4.3	9.1	**6.6**	4.6	9.4	**37.9**	33.4	42.6	**46.7**	42.0	51.4
35-44	**6.4**	4.9	8.2	**3.6**	2.6	5.0	**29.8**	26.9	32.8	**55.5**	52.2	58.8
45-54	**8.0**	6.5	9.9	**4.5**	3.4	5.9	**27.5**	24.9	30.2	**53.6**	50.6	56.6
55-64	**7.6**	6.1	9.4	**5.1**	3.9	6.7	**24.8**	22.2	27.6	**56.3**	53.2	59.3
65+	**11.0**	9.4	12.8	**4.6**	3.6	5.9	**24.5**	22.3	26.9	**49.4**	46.8	52.0
All persons	**7.6**	**6.8**	**8.5**	**4.7**	**4.0**	**5.4**	**30.1**	**28.6**	**31.7**	**52.0**	**50.4**	**53.7**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Table 8.34 shows the data by Department of Health region. There were no differences in males or females who resided in the rural compared to the metropolitan regions, with the exception that females from Gippsland Region (3.8 per cent) were less likely to have felt that they were not valued at all by society, compared with all Victorian females (7.0 per cent).

Table 8.34 Feeling valued by society, by Department of Health region, 2010

	No, not at all			Not often			Sometimes			Yes, definitely		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**7.1**	5.1	9.8	**2.0***	1.0	3.7	**27.1**	21.9	33.0	**56.4**	50.2	62.3
North & West Metropolitan	**10.3**	7.6	13.8	**3.9**	2.5	6.0	**28.8**	24.3	33.8	**51.8**	46.6	56.9
Southern Metropolitan	**7.5**	5.3	10.5	**4.4**	2.8	7.0	**35.5**	30.5	41.0	**45.6**	40.3	51.1
All metropolitan males	**8.6**	7.0	10.4	**3.6**	2.7	4.8	**30.6**	27.7	33.7	**50.9**	47.7	54.1
Barwon-South Western	**6.0***	3.4	10.2	**5.7***	3.2	10.1	**26.0**	20.9	31.7	**58.6**	52.4	64.6
Gippsland	**7.0**	5.0	9.6	**5.2**	3.2	8.3	**26.1**	20.5	32.4	**56.3**	49.5	62.9
Grampians	**9.5**	6.6	13.5	**4.5***	2.6	7.6	**30.5**	24.8	36.9	**44.7**	38.7	50.9
Hume	**7.4**	4.8	11.3	**6.1***	3.4	10.8	**27.8**	22.4	34.0	**53.1**	46.8	59.3
Loddon Mallee	**6.7**	4.7	9.6	**3.2***	1.5	6.7	**29.7**	24.3	35.7	**55.6**	49.3	61.7
All rural males	**7.2**	5.9	8.7	**4.7**	3.6	6.1	**28.0**	25.2	30.9	**54.8**	51.7	57.9
All Victorian males	**8.2**	**7.0**	**9.7**	**3.9**	**3.1**	**4.8**	**30.1**	**27.8**	**32.6**	**51.8**	**49.3**	**54.3**
FEMALES												
Eastern Metropolitan	**6.2**	4.4	8.6	**4.9**	3.1	7.6	**29.4**	25.2	34.1	**53.2**	48.5	57.9
North & West Metropolitan	**8.2**	6.2	10.9	**5.1**	3.5	7.4	**31.3**	27.5	35.4	**50.6**	46.5	54.8
Southern Metropolitan	**8.2**	5.9	11.2	**6.3**	4.4	8.9	**29.1**	25.2	33.4	**51.1**	46.5	55.6
All metropolitan females	**7.7**	6.4	9.2	**5.5**	4.4	6.9	**30.0**	27.6	32.5	**51.5**	48.9	54.1
Barwon-South Western	**4.8**	3.2	7.2	**4.9***	2.9	8.2	**28.5**	23.9	33.7	**57.3**	52.0	62.5
Gippsland	**3.8**	2.6	5.5	**6.1**	3.9	9.4	**32.9**	28.1	38.2	**52.3**	47.1	57.5
Grampians	**5.7**	3.7	8.6	**4.9***	2.7	8.6	**32.9**	28.1	38.1	**53.0**	47.6	58.3
Hume	**4.8**	3.2	7.1	**5.9**	3.9	8.8	**28.4**	23.9	33.5	**55.2**	49.7	60.5
Loddon Mallee	**6.2**	4.3	8.9	**3.9**	2.5	6.0	**32.4**	28.2	36.9	**51.8**	47.1	56.4
All rural females	**5.1**	4.2	6.1	**5.1**	4.1	6.4	**30.6**	28.4	32.9	**54.3**	51.9	56.6
All Victorian females	**7.0**	**6.0**	**8.2**	**5.4**	**4.5**	**6.5**	**30.2**	**28.3**	**32.1**	**52.2**	**50.2**	**54.3**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Trend over time

Table 8.35 shows that the proportion of males or females who felt or did not feel valued by society remained unchanged between 2004 and 2010.

Table 8.35 Feeling valued by society, by sex, 2004-2010

	No			Not often			Sometimes			Yes		
		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
2004	**9.3**	8.0	10.8	**6.5**	5.4	7.8	**26.9**	24.8	29.1	**51.6**	49.2	54.0
2005	**8.6**	7.4	10.0	**5.7**	4.6	7.1	**28.9**	26.7	31.2	**52.5**	50.0	54.9
2006	**7.9**	6.7	9.3	**5.2**	4.2	6.4	**26.0**	23.8	28.3	**55.9**	53.3	58.4
2007	**7.7**	6.4	9.2	**4.7**	3.8	5.8	**30.0**	27.7	32.4	**52.0**	49.4	54.5
2008	**8.3**	7.6	9.1	**4.7**	4.1	5.2	**28.2**	27.0	29.5	**53.2**	51.8	54.6
2009	**7.2**	6.2	8.3	**4.7**	3.8	5.8	**30.3**	28.2	32.5	**52.9**	50.6	55.2
2010	**8.2**	7.0	9.7	**3.9**	3.1	4.8	**30.1**	27.8	32.6	**51.8**	49.3	54.3
FEMALES												
2004	**7.6**	6.7	8.7	**5.6**	4.8	6.5	**26.9**	25.2	28.6	**53.6**	51.6	55.5
2005	**5.6**	4.8	6.4	**5.1**	4.3	6.1	**33.8**	31.9	35.7	**50.1**	48.1	52.1
2006	**7.5**	6.5	8.7	**6.0**	5.1	7.0	**29.5**	27.7	31.3	**50.8**	48.8	52.8
2007	**6.1**	5.2	7.2	**4.9**	4.0	5.9	**31.6**	29.8	33.6	**52.0**	49.9	54.0
2008	**6.9**	6.4	7.4	**5.4**	4.9	5.9	**30.1**	29.1	31.1	**51.7**	50.6	52.7
2009	**6.1**	5.3	7.1	**5.7**	4.9	6.7	**31.9**	30.1	33.7	**51.3**	49.4	53.2
2010	**7.0**	6.0	8.2	**5.4**	4.5	6.5	**30.2**	28.3	32.1	**52.2**	50.2	54.3
PERSONS												
2004	**8.5**	7.7	9.5	**6.0**	5.3	6.8	**26.8**	25.4	28.2	**52.6**	51.1	54.1
2005	**7.1**	6.4	7.9	**5.4**	4.7	6.2	**31.4**	29.9	32.9	**51.1**	49.6	52.7
2006	**7.6**	6.8	8.5	**5.5**	4.9	6.3	**27.8**	26.3	29.2	**53.3**	51.7	54.9
2007	**6.9**	6.1	7.8	**4.8**	4.2	5.6	**30.8**	29.3	32.4	**51.9**	50.3	53.6
2008	**7.6**	7.2	8.1	**5.0**	4.7	5.4	**29.1**	28.3	29.9	**52.4**	51.5	53.3
2009	**6.6**	6.0	7.4	**5.2**	4.6	5.9	**31.1**	29.7	32.5	**52.1**	50.6	53.6
2010	**7.6**	6.8	8.5	**4.7**	4.0	5.4	**30.1**	28.6	31.7	**52.0**	50.4	53.7

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Feelings of safety

Like trust, a sense of safety is an important determinant of a person's willingness to engage in the cultural, community and civic activities that a society offers. Feelings of safety are usually measured in terms of whether people feel safe in selected situations when they are unaccompanied. In this sense, safety refers to individual perceptions of personal harm or vulnerability. Survey respondents were asked if they felt safe walking down their street alone after dark.

Table 8.36 shows the data, by age and sex. Almost six in 10 persons (56.9 per cent) reported that they 'definitely' felt safe walking down their street alone after dark, while a further 16.6 per cent of persons reported that they 'sometimes' felt safe. Approximately one in four persons (23.1 per cent) reported that they did not or did not often feel safe walking down their street alone after dark.

There was a profound difference between the sexes, with males (71.5 per cent) being significantly more likely to report 'definitely' feeling safe walking down their street alone after dark compared with females (43.1 per cent). Conversely, 23.4 per cent of females reported that they did not feel safe compared with only 8.8 per cent of males.

Feelings of safety were also related to age with a higher proportion of males (18.3 per cent) and females (43.5 per cent) aged 65 years or over reporting that they did not feel safe walking down their street alone after dark, compared with all ages (8.8 and 23.4 per cent, respectively).

Table 8.36 Feelings of safety, by age and sex, 2010

Age group	No, not at all			Not often			Sometimes			Yes, definitely		
(years)		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**	**	**	**7.1***	3.1	15.2	**16.7**	10.3	26.0	**72.6**	62.4	80.8
25-34	**5.6***	2.9	10.4	**2.4***	0.9	6.2	**17.7**	12.7	24.1	**74.3**	67.2	80.3
35-44	**5.7**	3.6	9.0	**2.2***	1.1	4.4	**12.8**	9.5	16.9	**78.3**	73.5	82.5
45-54	**7.5**	5.3	10.4	**4.2**	2.6	6.6	**11.7**	9.0	15.1	**75.1**	70.8	78.9
55-64	**10.7**	8.0	14.3	**4.3**	2.7	6.9	**8.9**	6.5	12.1	**72.5**	67.9	76.6
65+	**18.3**	15.3	21.9	**6.9**	5.0	9.5	**11.6**	9.0	14.8	**56.1**	51.9	60.2
All males	**8.8**	**7.6**	**10.3**	**4.1**	**3.2**	**5.3**	**13.3**	**11.6**	**15.3**	**71.5**	**69.1**	**73.7**
FEMALES												
18-24	**12.2**	7.6	19.0	**10.4***	6.1	17.4	**30.8**	23.3	39.5	**46.6**	38.0	55.3
25-34	**14.1**	10.5	18.7	**12.0**	8.6	16.7	**26.4**	21.5	32.1	**45.9**	40.0	51.8
35-44	**20.6**	17.6	24.1	**11.6**	9.2	14.5	**19.7**	16.7	23.1	**45.8**	41.9	49.8
45-54	**20.8**	17.8	24.2	**6.8**	5.1	9.0	**18.7**	15.8	21.9	**51.2**	47.4	55.0
55-64	**27.7**	24.3	31.3	**8.1**	6.2	10.6	**16.1**	13.4	19.2	**44.2**	40.4	48.1
65+	**43.5**	40.2	46.8	**7.6**	6.0	9.6	**8.3**	6.6	10.4	**25.5**	22.8	28.4
All females	**23.4**	**21.9**	**25.0**	**9.3**	**8.2**	**10.7**	**19.8**	**18.1**	**21.7**	**43.1**	**41.1**	**45.1**
PERSONS												
18-24	**7.6**	4.9	11.7	**8.7**	5.5	13.6	**23.6**	18.3	29.7	**59.9**	53.2	66.3
25-34	**9.8**	7.4	12.9	**7.2**	5.1	9.9	**22.0**	18.4	26.2	**60.1**	55.4	64.6
35-44	**13.3**	11.3	15.6	**7.0**	5.5	8.7	**16.3**	14.0	18.9	**61.9**	58.6	65.0
45-54	**14.2**	12.3	16.4	**5.5**	4.3	7.0	**15.2**	13.2	17.5	**63.0**	60.1	65.8
55-64	**19.3**	17.1	21.9	**6.3**	4.9	7.9	**12.5**	10.7	14.7	**58.1**	55.1	61.1
65+	**32.2**	29.8	34.7	**7.3**	6.0	8.8	**9.8**	8.2	11.5	**39.2**	36.7	41.8
All persons	**16.4**	**15.3**	**17.5**	**6.7**	**6.0**	**7.6**	**16.6**	**15.3**	**17.9**	**56.9**	**55.3**	**58.5**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.
** Estimate has a relative standard error (RSE) greater than 50 per cent and is not reported as it is unreliable for general use.

Table 8.37 shows the data, by Department of Health region. There were significant differences between the rural and metropolitan regions of Victoria, where males (77.7 per cent) and females (47.6 per cent) who lived in the rural regions were more likely to report 'definitely' feeling safe walking down their street alone after dark, compared with all Victorians (71.5 and 43.1 per cent, respectively). Specifically, the proportion of males who 'definitely' felt safe was above the average for Victoria in Barwon-South Western and Loddon Mallee Regions, while the proportion of females who 'definitely' felt safe was above the average for Victoria in Gippsland, Hume and Loddon Mallee Regions.

Table 8.37 Feelings of safety, by Department of Health region, 2010

	No, not at all			Not often			Sometimes			Yes, definitely		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**6.2**	4.2	9.1	**3.9***	2.3	6.3	**14.6**	10.6	19.7	**73.9**	68.4	78.7
North & West Metropolitan	**12.0**	9.2	15.5	**5.6**	3.8	8.4	**15.6**	12.1	20.0	**65.2**	60.1	70.0
Southern Metropolitan	**9.6**	6.8	13.3	**4.8***	2.8	8.2	**14.3**	10.7	18.9	**69.7**	64.3	74.7
All metropolitan males	**9.6**	8.0	11.5	**4.7**	3.5	6.2	**14.8**	12.6	17.4	**69.3**	66.3	72.2
Barwon-South Western	**7.1**	4.7	10.6	**3.0***	1.5	6.0	**8.1**	5.7	11.6	**78.7**	73.7	82.9
Gippsland	**6.9**	4.3	10.7	**2.8***	1.6	4.8	**13.1**	8.7	19.1	**72.1**	65.6	77.7
Grampians	**8.6**	5.7	12.8	**2.7***	1.3	5.4	**9.5**	6.1	14.5	**76.8**	71.0	81.8
Hume	**4.5**	3.1	6.5	**3.4***	1.7	6.6	**11.1**	6.9	17.3	**75.2**	68.6	80.7
Loddon Mallee	**6.4**	4.1	9.9	**0.7***	0.3	2.0	**4.2***	2.6	6.8	**85.1**	80.9	88.4
All rural males	**6.7**	5.5	8.0	**2.6**	1.8	3.6	**9.1**	7.4	11.0	**77.7**	75.3	80.0
All Victorian males	**8.8**	**7.6**	**10.3**	**4.1**	**3.2**	**5.3**	**13.3**	**11.6**	**15.3**	**71.5**	**69.1**	**73.7**
FEMALES												
Eastern Metropolitan	**20.7**	17.3	24.6	**8.6**	6.5	11.4	**24.0**	20.0	28.6	**43.1**	38.5	47.7
North & West Metropolitan	**24.6**	21.5	28.0	**10.2**	7.9	13.0	**20.3**	17.0	24.1	**41.4**	37.4	45.5
Southern Metropolitan	**27.3**	23.8	31.2	**10.2**	7.7	13.5	**18.6**	15.2	22.4	**40.4**	36.0	45.0
All metropolitan females	**24.3**	22.3	26.4	**9.8**	8.4	11.5	**20.8**	18.7	23.1	**41.4**	38.9	44.0
Barwon-South Western	**22.4**	18.7	26.7	**12.2**	8.8	16.7	**20.5**	16.2	25.5	**40.5**	36.0	45.1
Gippsland	**21.9**	18.5	25.8	**5.2**	3.3	8.2	**14.0**	10.4	18.5	**51.2**	46.0	56.3
Grampians	**17.0**	13.8	20.8	**9.6**	6.6	13.8	**18.3**	14.2	23.4	**50.0**	44.6	55.3
Hume	**20.2**	17.3	23.3	**6.0***	3.6	9.9	**17.5**	13.4	22.6	**50.5**	45.1	55.8
Loddon Mallee	**23.7**	20.1	27.7	**4.8**	3.3	6.8	**12.9**	10.0	16.4	**50.4**	45.8	54.9
All rural females	**21.5**	19.8	23.3	**7.7**	6.4	9.2	**16.9**	15.0	18.9	**47.6**	45.2	50.0
All Victorian females	**23.4**	**21.9**	**25.0**	**9.3**	**8.2**	**10.7**	**19.8**	**18.1**	**21.7**	**43.1**	**41.1**	**45.1**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Trend over time

Table 8.38 shows the trend over time of feelings of safety, between 2005 and 2010. The proportion of males and females who did not feel safe walking down their street alone after dark remained unchanged between 2005 and 2010. By contrast, the proportion of males, but not females or all persons, who reported that they 'definitely' felt safe walking down their street alone after dark significantly decreased between 2005 and 2010.

Table 8.38 Feelings of safety, by sex, 2005-2010

	No			Not often			Sometimes			Yes		
		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
2005	**7.3**	6.1	8.7	**2.5**	1.9	3.4	**9.8**	8.4	11.4	**77.8**	75.7	79.7
2006	**5.8**	4.8	7.0	**2.8**	2.1	3.8	**10.4**	8.9	12.1	**78.2**	76.1	80.2
2007	**7.5**	6.3	9.0	**3.2**	2.5	4.2	**11.6**	10.1	13.4	**74.6**	72.4	76.7
2008	**7.5**	6.9	8.2	**3.5**	3.1	4.1	**12.0**	11.1	12.9	**74.4**	73.3	75.6
2009	**8.2**	7.1	9.5	**3.3**	2.5	4.4	**12.5**	11.0	14.2	**72.9**	70.8	74.9
2010	**8.8**	7.6	10.3	**4.1**	3.2	5.3	**13.3**	11.6	15.3	**71.5**	69.1	73.7
FEMALES												
2005	**25.6**	24.0	27.3	**8.7**	7.6	9.9	**19.0**	17.4	20.6	**43.6**	41.7	45.6
2006	**24.1**	22.5	25.8	**7.9**	6.8	9.2	**19.1**	17.5	20.7	**45.0**	43.1	47.0
2007	**25.9**	24.2	27.7	**7.3**	6.3	8.4	**20.8**	19.2	22.6	**41.3**	39.3	43.3
2008	**24.9**	24.0	25.7	**7.9**	7.3	8.5	**18.9**	18.1	19.8	**43.9**	42.9	45.0
2009	**23.2**	21.7	24.8	**7.8**	6.7	9.0	**19.9**	18.3	21.5	**44.6**	42.8	46.5
2010	**23.4**	21.9	25.0	**9.3**	8.2	10.7	**19.8**	18.1	21.7	**43.1**	41.1	45.1
PERSONS												
2005	**16.8**	15.8	18.0	**5.7**	5.0	6.4	**14.5**	13.4	15.6	**60.2**	58.7	61.6
2006	**15.3**	14.3	16.3	**5.4**	4.7	6.2	**14.7**	13.6	15.9	**61.2**	59.6	62.7
2007	**17.0**	15.9	18.2	**5.3**	4.7	6.0	**16.2**	15.0	17.5	**57.6**	56.0	59.2
2008	**16.5**	15.9	17.0	**5.7**	5.3	6.1	**15.4**	14.8	16.1	**58.9**	58.0	59.7
2009	**16.0**	15.0	17.0	**5.6**	4.9	6.3	**16.2**	15.1	17.4	**58.5**	57.0	59.9
2010	**16.4**	15.3	17.5	**6.7**	6.0	7.6	**16.6**	15.3	17.9	**56.9**	55.3	58.5

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time

Community and civic engagement

Participating in recreational and leisure activities allows for social interaction and engagement with a broader cross–section of the community. These activities also contribute to individual wellbeing through benefits to physical and mental health, including social health. In this chapter, recreation and leisure are interpreted broadly to involve activities that individuals may undertake during leisure time. They may include belonging to and participating in organised groups (including church or other religious groups and social or action groups) and attending local events (church fêtes, school concerts etc.).

Membership of selected organised groups

The survey collected information on whether respondents were members of a number of organised groups. Table 8.39 shows the data, by age and sex. More than one in four persons (27.2 per cent) was a member of a sports group, over one in five (20.4 per cent) was a member of a professional group or academic society, almost one in six (15.9 per cent) belonged to a church group and more than one in 10 (11.5 per cent) was a member of a school group. Almost one in five persons (17.5 per cent) was a member of a community or other action group.

Membership of an organised group, by type of group, varied by age and sex. Males (33.8 per cent) were significantly more likely to be members of a sports group compared with females (20.7 per cent). Membership of a sports group declined with age, with persons aged 18 to 24 years being most likely to belong to a sports group, while those aged 55 and over being least likely.

There was no difference between the sexes in the proportion of males or females who belonged to a church group. There was a higher proportion of males (26.2 per cent) and females (27.0 per cent) aged 65 years and over who attended a church group, compared with all ages (15.1 and 16.5 per cent, respectively).

A higher proportion of females (14.8 per cent) compared with males (8.0 cent) belonged to a school group. Males (13.0 per cent) and females (33.3 per cent) aged 35 to 44 years were more likely than any other age group to belong to a school group.

There were no differences between the sexes in the proportion of males and females who belonged to a professional, community or other action group. The highest proportion of persons who belonged to a professional group were aged 35 to 44 years (24.9 per cent). Membership of a community or other action group increased with age, with persons aged 55 to 64 years (23.0 per cent) and 65 years and over (31.0 per cent) being most likely to be members compared with all ages (17.5 per cent).

Table 8.39 Membership of an organised group, by age and sex, 2010

Age group (years)	Sports group			Church group			School group			Professional group			Other community/action group		
		95% CI			95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**45.8**	36.0	55.9	**14.0**	8.2	22.8	**15.2***	9.1	24.3	**18.2**	11.5	27.6	**8.6***	4.6	15.7
25-34	**32.1**	25.7	39.3	**13.3**	8.9	19.3	**5.8***	3.3	10.0	**21.9**	16.4	28.6	**9.1**	5.9	13.8
35-44	**35.3**	30.4	40.5	**11.6**	8.5	15.6	**13.0**	9.9	17.1	**23.4**	19.2	28.2	**14.3**	11.1	18.3
45-54	**35.0**	30.8	39.5	**14.6**	11.5	18.3	**8.9**	6.7	11.8	**27.9**	23.9	32.2	**17.8**	14.7	21.4
55-64	**27.4**	23.4	31.8	**11.9**	9.1	15.3	**4.5**	3.0	6.9	**21.5**	17.8	25.8	**21.2**	17.7	25.2
65+	**28.7**	25.2	32.5	**26.2**	22.7	30.0	**2.3***	1.3	4.0	**12.2**	9.7	15.3	**26.9**	23.5	30.7
All males	**33.8**	**31.5**	**36.3**	**15.1**	**13.4**	**16.9**	**8.0**	**6.7**	**9.6**	**21.3**	**19.3**	**23.4**	**16.2**	14.7	17.9
FEMALES															
18-24	**24.7**	17.8	33.2	**15.3**	9.9	22.9	**16.1**	10.6	23.7	**21.7**	15.2	30.0	**9.4***	5.4	15.9
25-34	**18.6**	14.6	23.3	**9.9**	6.9	14.1	**12.4**	9.1	16.7	**21.0**	16.6	26.3	**14.4**	10.7	19.0
35-44	**24.8**	21.6	28.3	**14.8**	12.3	17.9	**33.3**	29.7	37.1	**26.4**	23.1	30.1	**13.5**	11.0	16.4
45-54	**23.4**	20.3	26.7	**15.8**	13.2	18.8	**16.0**	13.5	18.9	**20.4**	17.5	23.6	**15.9**	13.4	18.8
55-64	**15.7**	13.2	18.6	**18.1**	15.3	21.3	**5.5**	4.0	7.5	**16.9**	14.3	20.0	**24.8**	21.7	28.2
65+	**17.3**	15.0	19.9	**27.0**	24.2	30.0	**2.4**	1.6	3.6	**8.7**	7.1	10.7	**34.3**	31.2	37.6
All females	**20.7**	**19.1**	**22.4**	**16.5**	**15.1**	**18.0**	**14.8**	**13.4**	**16.2**	**19.5**	**17.9**	**21.3**	**18.6**	17.2	20.1
PERSONS															
18-24	**35.5**	29.3	42.3	**14.6**	10.4	20.2	**15.7**	11.3	21.3	**19.9**	15.0	25.9	**9.0**	5.9	13.4
25-34	**25.4**	21.5	29.7	**11.6**	8.8	15.1	**9.1**	6.9	11.9	**21.5**	17.8	25.6	**11.7**	9.2	14.9
35-44	**30.0**	27.0	33.1	**13.2**	11.2	15.7	**23.3**	20.7	26.1	**24.9**	22.2	27.9	**13.9**	11.8	16.3
45-54	**29.1**	26.5	31.9	**15.2**	13.1	17.5	**12.5**	10.8	14.5	**24.1**	21.6	26.8	**16.8**	14.8	19.1
55-64	**21.4**	19.0	24.1	**15.0**	13.0	17.3	**5.0**	3.9	6.5	**19.2**	16.9	21.8	**23.0**	20.7	25.6
65+	**22.5**	20.4	24.7	**26.7**	24.4	29.0	**2.4**	1.7	3.3	**10.3**	8.8	12.0	**31.0**	28.7	33.4
All persons	**27.2**	**25.7**	**28.7**	**15.9**	**14.8**	**17.0**	**11.5**	**10.5**	**12.6**	**20.4**	**19.1**	**21.7**	**17.5**	16.5	18.6

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Table 8.40 provides a regional perspective on the membership of organised groups. Males (40.6 per cent) and females (26.7 per cent) from the rural regions of Victoria were more likely to belong to a sports group compared with males (31.5 per cent) and females (18.8 per cent) from the metropolitan regions, as were males and females from the Loddon Mallee region and females from the Gippsland region.

There were no regional differences in males or females in the membership of church or school groups. By contrast, males from the rural regions, specifically Gippsland, Grampians and Hume Regions, were more likely to be members of other community or action groups compared with all Victorian males.

Table 8.40 Membership of an organised group, by Department of Health region, 2010

	Sports group			Church group			School group			Professional group			Other community/action group		
		95% CI			95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**31.3**	26.1	37.0	**19.6**	15.4	24.7	**6.2**	4.0	9.5	**25.0**	20.2	30.6	**15.1**	11.6	19.6
North & West Metropolitan	**30.8**	26.2	35.8	**15.7**	12.4	19.7	**9.1**	6.6	12.5	**18.2**	14.5	22.6	**12.9**	10.0	16.5
Southern Metropolitan	**31.1**	26.1	36.6	**13.1**	9.9	17.1	**6.7**	4.3	10.5	**26.0**	21.4	31.2	**13.2**	10.4	16.7
All metropolitan males	**31.5**	28.5	34.5	**15.8**	13.7	18.2	**7.8**	6.2	9.8	**22.5**	19.9	25.2	**13.6**	11.8	15.7
Barwon-South Western	**44.0**	38.1	50.0	**14.6**	11.3	18.8	**11.0**	7.6	15.7	**20.7**	15.8	26.6	**23.2**	18.7	28.5
Gippsland	**34.9**	28.3	42.1	**10.0**	6.8	14.4	**8.1**	5.4	12.0	**15.4**	11.1	20.8	**25.8**	20.5	32.0
Grampians	**33.1**	27.5	39.2	**15.0**	11.2	20.0	**7.5**	4.8	11.6	**16.2**	12.2	21.2	**25.9**	20.8	31.7
Hume	**40.4**	33.9	47.2	**13.5**	9.3	19.3	**8.4**	5.7	12.2	**17.7**	13.0	23.6	**25.0**	19.8	30.9
Loddon Mallee	**47.9**	41.8	54.1	**11.2**	8.2	15.3	**8.0**	4.8	12.9	**20.0**	15.7	25.3	**18.5**	15.1	22.5
All rural males	**40.6**	37.5	43.7	**13.0**	11.2	15.0	**8.8**	7.2	10.7	**18.2**	15.9	20.6	**23.6**	21.2	26.0
All Victorian males	**33.8**	**31.5**	**36.3**	**15.1**	**13.4**	**16.9**	**8.0**	**6.7**	**9.6**	**21.3**	**19.3**	**23.4**	**16.2**	**14.7**	**17.9**
FEMALES															
Eastern Metropolitan	**19.2**	16.1	22.8	**18.7**	15.5	22.5	**16.8**	13.7	20.5	**20.4**	16.9	24.3	**17.3**	14.5	20.4
North & West Metropolitan	**16.7**	13.7	20.3	**15.1**	12.4	18.3	**13.6**	11.1	16.4	**19.5**	16.2	23.2	**16.1**	13.3	19.3
Southern Metropolitan	**20.6**	17.2	24.5	**15.6**	12.8	18.9	**13.3**	10.5	16.7	**18.6**	15.3	22.5	**18.9**	15.8	22.4
All metropolitan females	**18.8**	16.8	20.9	**16.1**	14.4	18.0	**14.2**	12.6	16.0	**19.6**	17.6	21.9	**17.7**	15.9	19.6
Barwon-South Western	**26.3**	22.1	30.9	**18.7**	15.0	23.1	**18.9**	15.0	23.5	**20.6**	16.8	25.1	**20.0**	17.0	23.4
Gippsland	**29.0**	24.3	34.2	**16.4**	13.4	20.0	**15.7**	12.4	19.5	**14.5**	11.7	17.9	**24.0**	20.0	28.4
Grampians	**23.1**	18.9	27.9	**17.0**	14.0	20.4	**15.1**	11.7	19.2	**19.1**	15.1	23.8	**21.7**	18.1	25.8
Hume	**26.9**	22.2	32.1	**15.3**	12.6	18.6	**14.0**	11.0	17.6	**16.6**	13.5	20.2	**20.3**	17.2	23.8
Loddon Mallee	**27.3**	23.5	31.5	**17.3**	14.3	20.8	**17.0**	14.0	20.6	**21.2**	17.5	25.4	**19.1**	16.1	22.5
All rural females	**26.7**	24.6	28.8	**17.1**	15.6	18.8	**16.4**	14.7	18.2	**18.9**	17.1	20.8	**21.0**	19.5	22.7
All Victorian females	**20.7**	**19.1**	**22.4**	**16.5**	**15.1**	**18.0**	**14.8**	**13.4**	**16.2**	**19.5**	**17.9**	**21.3**	**18.6**	**17.2**	**20.1**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

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Trend over time

Table 8.41 shows the proportion of males and females who belonged to a sports group over time, between 2003 and 2010. The proportion of all persons who were members of a sports group significantly declined between 2003 and 2010.

Table 8.41 Membership of a sports groups, 2003-2010

	Yes			No		
		95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
2003	**35.2**	32.9	37.5	**64.8**	62.5	67.1
2004	**35.6**	33.3	37.9	**64.4**	62.1	66.7
2005	**33.3**	31.0	35.6	**66.6**	64.3	68.9
2006	**34.8**	32.4	37.3	**65.1**	62.6	67.5
2007	**30.7**	28.4	33.1	**69.0**	66.7	71.3
2008	**31.9**	30.6	33.1	**68.1**	66.8	69.3
2009	**28.6**	26.6	30.7	**71.4**	69.3	73.4
2010	**33.8**	31.5	36.3	**66.1**	63.7	68.5
FEMALES						
2003	**21.7**	20.2	23.3	**78.2**	76.5	79.7
2004	**23.3**	21.7	25.0	**76.7**	75.0	78.2
2005	**21.5**	20.0	23.1	**78.5**	76.8	80.0
2006	**19.6**	18.1	21.2	**80.3**	78.8	81.8
2007	**21.5**	19.9	23.2	**78.5**	76.7	80.1
2008	**20.3**	19.5	21.2	**79.5**	78.7	80.4
2009	**21.1**	19.6	22.7	**78.9**	77.3	80.4
2010	**20.7**	19.1	22.4	**79.1**	77.4	80.7
PERSONS						
2003	**28.2**	26.8	29.6	**71.8**	70.4	73.2
2004	**29.3**	27.9	30.7	**70.7**	69.3	72.1
2005	**27.2**	25.9	28.7	**72.7**	71.3	74.1
2006	**27.0**	25.5	28.4	**73.0**	71.5	74.4
2007	**26.0**	24.6	27.4	**73.9**	72.4	75.3
2008	**26.0**	25.2	26.7	**74.0**	73.2	74.7
2009	**24.8**	23.5	26.1	**75.2**	73.9	76.5
2010	**27.2**	25.7	28.7	**72.7**	71.2	74.2

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Table 8.42 shows the proportion of males and females who belonged to a church group over time, between 2003 and 2010. The proportion of females and all persons, but not males, who were members of a church group significantly declined between 2003 and 2010, while the proportion of females and all persons who were not members of a church group significantly increased. By contrast the proportion of males remained unchanged between 2003 and 2010.

Table 8.42 Membership of a church group, 2003-2010

	Yes			No		
		95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
2003	**15.1**	13.5	16.9	**84.9**	83.1	86.5
2004	**16.6**	14.9	18.5	**83.4**	81.5	85.1
2005	**16.5**	14.7	18.4	**83.5**	81.6	85.3
2006	**14.2**	12.6	16.0	**85.8**	84.0	87.4
2007	**14.2**	12.7	15.9	**85.7**	84.0	87.3
2008	**14.5**	13.6	15.4	**85.5**	84.6	86.4
2009	**14.3**	12.8	16.0	**85.7**	84.0	87.2
2010	**15.1**	13.4	16.9	**84.8**	83.0	86.5
FEMALES						
2003	**20.8**	19.3	22.5	**79.0**	77.4	80.6
2004	**21.0**	19.5	22.6	**79.0**	77.4	80.5
2005	**19.8**	18.3	21.3	**80.0**	78.4	81.5
2006	**18.7**	17.3	20.3	**81.2**	79.7	82.6
2007	**18.8**	17.3	20.4	**81.1**	79.5	82.6
2008	**18.1**	17.4	18.9	**81.8**	81.0	82.6
2009	**18.2**	16.9	19.6	**81.7**	80.3	83.1
2010	**16.5**	15.1	18.0	**83.2**	81.7	84.6
PERSONS						
2003	**18.0**	16.8	19.2	**81.9**	80.7	83.1
2004	**18.9**	17.7	20.1	**81.1**	79.9	82.3
2005	**18.2**	17.0	19.4	**81.7**	80.5	82.9
2006	**16.5**	15.4	17.7	**83.4**	82.3	84.5
2007	**16.6**	15.5	17.7	**83.4**	82.2	84.5
2008	**16.4**	15.8	17.0	**83.6**	83.0	84.2
2009	**16.4**	15.3	17.4	**83.6**	82.5	84.6
2010	**15.9**	14.8	17.0	**84.0**	82.8	85.1

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.

Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time

Table 8.43 shows the proportion of males and females who belonged to a school group over time, between 2003 and 2010. The proportion of males and females who were members of a school group significantly declined between 2003 and 2010, while the proportion of males and females who were not members of a school group significantly increased.

Table 8.43 Membership of a school group, 2003-2010

	Yes			No		
		95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
2003	**10.9**	9.5	12.4	**89.1**	87.5	90.4
2004	**12.2**	10.7	13.8	**87.8**	86.1	89.2
2005	**11.4**	10.0	12.9	**88.6**	87.0	90.0
2006	**10.3**	8.8	12.1	**89.6**	87.9	91.1
2007	**8.6**	7.2	10.2	**91.4**	89.8	92.8
2008	**8.6**	7.9	9.4	**91.3**	90.5	92.0
2009	**8.5**	7.3	10.0	**91.4**	90.0	92.7
2010	**8.0**	6.7	9.6	**92.0**	90.4	93.3
FEMALES						
2003	**17.7**	16.4	19.2	**82.2**	80.7	83.5
2004	**18.5**	17.1	19.9	**81.5**	80.1	82.9
2005	**19.1**	17.6	20.6	**80.8**	79.2	82.3
2006	**15.0**	13.7	16.4	**84.9**	83.5	86.2
2007	**14.5**	13.1	16.0	**85.3**	83.8	86.7
2008	**13.6**	12.9	14.4	**86.2**	85.5	86.9
2009	**14.0**	12.8	15.3	**85.8**	84.5	87.0
2010	**14.8**	13.4	16.2	**85.2**	83.7	86.5
PERSONS						
2003	**14.3**	13.3	15.4	**85.6**	84.5	86.6
2004	**15.4**	14.4	16.5	**84.6**	83.5	85.6
2005	**15.3**	14.2	16.4	**84.6**	83.5	85.7
2006	**12.7**	11.7	13.9	**87.2**	86.1	88.2
2007	**11.6**	10.6	12.6	**88.3**	87.3	89.3
2008	**11.2**	10.7	11.7	**88.7**	88.2	89.2
2009	**11.3**	10.4	12.3	**88.6**	87.7	89.5
2010	**11.5**	10.5	12.6	**88.4**	87.4	89.4

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Table 8.44 shows the proportion of males and females who belonged to a community or other action group over time, between 2003 and 2010.The proportion of males and females who were members of a community or other action group significantly declined between 2003 and 2010, while the proportion of males and females who were not members of a community or action group significantly increased.

Table 8.44 Membership of a community or other action group, 2003-2010

	Yes			No		
		95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
2003	**21.2**	19.4	23.2	**78.7**	76.7	80.5
2004	**21.1**	19.3	23.0	**78.6**	76.7	80.4
2005	**19.0**	17.3	20.9	**81.0**	79.1	82.7
2006	**19.7**	17.8	21.8	**80.0**	78.0	81.9
2007	**18.4**	16.6	20.4	**81.3**	79.4	83.1
2008	**18.9**	17.9	19.8	**80.9**	79.9	81.8
2009	**18.9**	17.2	20.6	**81.0**	79.3	82.6
2010	**16.2**	14.7	17.9	**83.7**	82.0	85.2
FEMALES						
2003	**22.3**	20.8	23.9	**77.6**	76.0	79.2
2004	**20.4**	19.0	21.9	**79.6**	78.1	81.0
2005	**20.1**	18.7	21.7	**79.6**	78.1	81.1
2006	**20.5**	19.0	22.2	**79.4**	77.7	80.9
2007	**18.6**	17.2	20.0	**81.0**	79.5	82.5
2008	**19.2**	18.5	19.9	**80.6**	79.9	81.4
2009	**18.6**	17.4	19.9	**81.2**	80.0	82.5
2010	**18.6**	17.2	20.1	**81.1**	79.6	82.5
PERSONS						
2003	**21.8**	20.6	23.0	**78.2**	76.9	79.3
2004	**20.8**	19.6	22.0	**79.1**	77.9	80.3
2005	**19.6**	18.4	20.7	**80.3**	79.1	81.4
2006	**20.0**	18.7	21.3	**79.9**	78.5	81.1
2007	**18.5**	17.4	19.7	**81.2**	79.9	82.3
2008	**19.0**	18.5	19.7	**80.7**	80.1	81.3
2009	**18.7**	17.7	19.8	**81.1**	80.0	82.1
2010	**17.5**	16.5	18.6	**82.3**	81.2	83.3

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Attendance at a local event

A further indicator of participation in recreational and leisure activities is attendance at a local community event within the past six months. Table 8.45 shows the proportion of persons who reported they had recently attended a local community event, by age and sex.

More than half of males (54.4 per cent) and females (54.4 per cent) had attended a community event in the preceding six months. There were no differences between the sexes. Males and females aged 35 to 44 years were more likely to have attended a community event in the preceding six months, while those aged 65 years and over were least likely, compared to all ages.

Table 8.45 Attended a local community event in the past six months, by age and sex, 2010

Age group (years)	Yes	95% CI		No	95% CI	
MALES	%	LL	UL	%	LL	UL
18-24	**52.5**	42.5	62.4	**47.5**	37.6	57.5
25-34	**52.7**	45.3	60.0	**46.6**	39.3	54.0
35-44	**64.6**	59.2	69.6	**35.1**	30.0	40.4
45-54	**57.1**	52.4	61.6	**42.1**	37.6	46.7
55-64	**53.4**	48.5	58.2	**46.4**	41.7	51.3
65+	**47.1**	43.0	51.3	**52.7**	48.5	56.8
All males	**54.4**	**51.9**	**56.9**	**45.1**	**42.6**	**47.7**
FEMALES						
18-24	**51.9**	43.2	60.5	**48.1**	39.5	56.8
25-34	**53.7**	47.7	59.6	**46.3**	40.4	52.3
35-44	**68.0**	64.0	71.7	**31.4**	27.7	35.3
45-54	**53.4**	49.5	57.2	**45.9**	42.1	49.8
55-64	**50.7**	46.8	54.6	**48.7**	44.8	52.6
65+	**47.7**	44.4	51.0	**51.4**	48.0	54.7
All females	**54.4**	**52.4**	**56.4**	**45.1**	**43.1**	**47.2**
PERSONS						
18-24	**52.2**	45.5	58.9	**47.8**	41.1	54.5
25-34	**53.2**	48.4	57.9	**46.4**	41.7	51.2
35-44	**66.3**	63.0	69.4	**33.2**	30.1	36.5
45-54	**55.2**	52.2	58.1	**44.0**	41.1	47.0
55-64	**52.0**	48.9	55.1	**47.6**	44.5	50.7
65+	**47.4**	44.8	50.1	**51.9**	49.3	54.6
All persons	**54.5**	**52.9**	**56.1**	**45.0**	**43.4**	**46.6**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Table 8.46 provides a regional perspective on recent attendance at a local community event. A higher proportion of males (67.3 per cent) and females (67.3 per cent) who resided in the rural regions had attended a local community event in the previous six months, compared with those who resided in the metropolitan regions (49.9 and 49.7 per cent, respectively).

A higher proportion of males and females who resided in all five rural Department of Health regions, with the exception of males in Grampians Region, had attended a community event in the previous six months compared with males and females who resided in the metropolitan regions. By contrast, a lower proportion of males and females from North and West Metropolitan Region had attended a community event in the previous six months, compared with all Victorian males and females.

Table 8.46 Attended a local community event in the past six months, by Department of Health region, 2010

	Yes				No		
		95% CI				95% CI	
MALES	%	LL	UL		%	LL	UL
Eastern Metropolitan	**53.1**	47.1	59.0	0	**46.9**	41.0	52.9
North & West Metropolitan	**43.8**	38.8	48.9	0	**55.6**	50.5	60.5
Southern Metropolitan	**55.6**	50.0	61.0	0	**43.8**	38.4	49.4
All metropolitan males	**49.9**	46.7	53.1	0	**49.5**	46.4	52.7
Barwon-South Western	**68.9**	62.9	74.4	0	**30.9**	25.5	36.9
Gippsland	**65.4**	58.5	71.8	0	**34.1**	27.8	41.1
Grampians	**60.2**	53.7	66.4	0	**39.0**	32.9	45.4
Hume	**73.7**	67.3	79.3	0	**26.0**	20.4	32.4
Loddon Mallee	**67.5**	61.7	72.8	0	**32.5**	27.2	38.3
All rural males	**67.3**	64.3	70.1	0	**32.5**	29.6	35.5
All Victorian males	**54.4**	**51.9**	**56.9**	**0**	**45.1**	**42.6**	**47.7**
FEMALES							
Eastern Metropolitan	**52.8**	48.1	57.5	0	**46.7**	42.1	51.4
North & West Metropolitan	**46.6**	42.5	50.7	0	**52.8**	48.7	56.9
Southern Metropolitan	**51.2**	46.7	55.7	0	**48.4**	43.9	53.0
All metropolitan females	**49.7**	47.2	52.3	0	**49.8**	47.2	52.3
Barwon-South Western	**61.7**	56.4	66.7	0	**38.0**	33.0	43.3
Gippsland	**70.8**	65.6	75.6	0	**29.0**	24.3	34.2
Grampians	**70.6**	65.4	75.3	0	**29.4**	24.7	34.6
Hume	**65.3**	60.1	70.1	0	**34.2**	29.4	39.3
Loddon Mallee	**70.9**	66.7	74.8	0	**28.1**	24.2	32.3
All rural females	**67.3**	65.0	69.5	0	**32.3**	30.1	34.6
All Victorian females	**54.4**	**52.4**	**56.4**	**0**	**45.1**	**43.1**	**47.2**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.

Trend over time

Table 8.47 shows attendance at a local community event in the past six months over time, between 2003 and 2010. The proportion of males and females who had attended a local community event in the past six months remained unchanged between 2003 and 2010, as did the proportion that did not.

Table 8.47 Attended a local community event in the past six months, 2003-2010

	Yes			No		
	%	95% CI		%	95% CI	
MALES		LL	UL		LL	UL
2003	**49.2**	46.9	51.6	**50.3**	47.9	52.6
2004	**48.4**	46.0	50.7	**51.3**	48.9	53.6
2005	**52.1**	49.7	54.5	**47.7**	45.2	50.1
2006	**51.4**	48.9	53.9	**48.5**	46.0	51.0
2007	**50.1**	47.5	52.7	**49.4**	46.9	52.0
2008	**50.9**	49.5	52.2	**48.9**	47.5	50.2
2009	**50.3**	48.0	52.6	**49.3**	47.0	51.6
2010	**54.4**	51.9	56.9	**45.1**	42.6	47.7
FEMALES						
2003	**54.8**	52.8	56.7	**44.9**	43.0	46.9
2004	**50.4**	48.6	52.3	**49.2**	47.3	51.1
2005	**55.9**	53.9	57.8	**43.8**	41.8	45.8
2006	**54.1**	52.1	56.1	**45.4**	43.4	47.4
2007	**52.4**	50.4	54.5	**46.9**	44.9	49.0
2008	**54.8**	53.7	55.9	**44.8**	43.7	45.8
2009	**55.3**	53.4	57.1	**44.1**	42.3	46.0
2010	**54.4**	52.4	56.4	**45.1**	43.1	47.2
PERSONS						
2003	**52.2**	50.6	53.7	**47.4**	45.9	49.0
2004	**49.4**	47.9	50.9	**50.2**	48.7	51.7
2005	**53.9**	52.4	55.5	**45.8**	44.2	47.4
2006	**52.9**	51.3	54.5	**46.8**	45.2	48.4
2007	**51.3**	49.7	53.0	**48.1**	46.4	49.7
2008	**52.9**	52.1	53.8	**46.7**	45.9	47.6
2009	**52.9**	51.4	54.4	**46.6**	45.1	48.1
2010	**54.5**	52.9	56.1	**45.0**	43.4	46.6

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Volunteering

Ways of expressing community and civic engagement include being involved in the community through volunteering, being on a committee or decision–making body, or taking local action on behalf of an organised group (for example, a sporting group, a church group or a school group). Being involved in community or civic activities is a form of socialisation. Networks formed through community and civic engagement tend to bring together individuals from different backgrounds that may not otherwise interact. Community and civic engagement thus facilitates social cohesion by allowing the expression of different perspectives, and it fosters greater appreciation of diversity and understanding throughout the community.

Survey respondents were asked whether they currently received any help from volunteer organisations and whether they helped out a local group as a volunteer. The first of these two indicators was discussed earlier in the chapter; the second indicator is reported in this section.

Table 8.48 shows the proportion of persons who volunteered to help out a local group, by age and sex. More than one-fifth (22.0 per cent) of persons reported they had definitely helped out a local group as a volunteer, and a further 10.1 per cent sometimes did so. Within each age group and overall, males and females were similarly disposed to volunteer. Males who were 45 to 54 years of age (28.1 per cent) were most likely to have volunteered, compared with all ages (21.9 per cent). By contrast, females aged 35 to 44 years (27.9 per cent) and those aged 65 years and over (28.8 per cent) were the most likely to volunteer, compared with all ages (22.0 per cent).

Table 8.48 Volunteering, by age and sex, 2010

Age group	No, not at all			Not often			Sometimes			Yes, definitely		
(years)		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
18-24	**62.9**	52.9	71.9	**9.0***	4.8	16.6	**11.7***	6.5	20.2	**16.2**	10.4	24.4
25-34	**68.1**	61.0	74.4	**7.1***	4.1	12.0	**10.6**	6.9	16.0	**14.1**	10.0	19.6
35-44	**61.5**	56.3	66.5	**3.7***	2.2	6.3	**11.2**	8.3	15.0	**23.4**	19.4	28.0
45-54	**56.9**	52.3	61.3	**5.8**	4.0	8.4	**9.1**	6.9	11.9	**28.1**	24.2	32.2
55-64	**62.3**	57.7	66.7	**5.9**	4.0	8.7	**8.8**	6.5	11.8	**22.8**	19.3	26.8
65+	**61.0**	56.9	64.9	**4.1**	2.7	6.0	**8.0**	6.0	10.6	**26.5**	23.2	30.2
All males	**62.0**	**59.6**	**64.4**	**5.8**	**4.7**	**7.2**	**10.1**	**8.6**	**11.8**	**21.9**	**20.1**	**23.8**
FEMALES												
18-24	**64.1**	55.3	72.1	**8.5***	4.6	15.0	**10.0***	5.9	16.6	**17.3**	11.5	25.3
25-34	**68.0**	62.3	73.2	**6.4**	4.1	9.9	**12.2**	8.8	16.7	**12.9**	9.6	17.1
35-44	**56.2**	52.3	60.1	**4.3**	2.9	6.1	**11.2**	9.0	13.9	**27.9**	24.6	31.6
45-54	**60.7**	56.9	64.3	**5.9**	4.3	8.0	**11.8**	9.7	14.3	**21.7**	18.7	24.9
55-64	**63.7**	60.0	67.3	**5.1**	3.6	7.1	**8.6**	6.7	11.0	**22.5**	19.5	25.7
65+	**61.0**	57.7	64.2	**3.3**	2.3	4.8	**6.7**	5.2	8.5	**28.8**	26.0	31.8
All females	**62.4**	**60.4**	**64.3**	**5.4**	**4.5**	**6.5**	**10.1**	**8.9**	**11.4**	**22.0**	**20.4**	**23.6**
PERSONS												
18-24	**63.5**	56.9	69.7	**8.8**	5.7	13.4	**10.9**	7.3	16.0	**16.8**	12.4	22.2
25-34	**68.0**	63.6	72.2	**6.8**	4.7	9.6	**11.4**	8.8	14.8	**13.5**	10.8	16.9
35-44	**58.8**	55.6	62.0	**4.0**	2.9	5.4	**11.2**	9.3	13.5	**25.7**	23.0	28.6
45-54	**58.8**	55.9	61.7	**5.9**	4.6	7.4	**10.4**	8.9	12.3	**24.8**	22.4	27.4
55-64	**63.0**	60.1	65.9	**5.5**	4.2	7.1	**8.7**	7.2	10.6	**22.7**	20.3	25.2
65+	**61.0**	58.4	63.5	**3.7**	2.8	4.8	**7.3**	6.0	8.8	**27.8**	25.6	30.1
All persons	**62.2**	**60.6**	**63.7**	**5.6**	**4.9**	**6.5**	**10.1**	**9.1**	**11.1**	**22.0**	**20.8**	**23.2**

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Table 8.49 shows the proportion of males and females who volunteered to help out a local group, by Department of Health region. Males in every rural Department of Health region and overall were significantly more likely to have volunteered, compared with their metropolitan counterparts. Almost twice as many males who resided in rural Victoria (34.0 per cent) compared with metropolitan Victoria (17.7 per cent) had volunteered. Similarly, a higher proportion of females from rural Victoria (27.5 per cent) had volunteered compared with their metropolitan counterparts (19.8 per cent). Females from Gippsland (29.8 per cent) and Loddon Mallee (29.0 per cent) Regions were also more likely to have volunteered, compared with all Victorian females (22.0 per cent).

Table 8.49 Volunteering, by Department of Health region, 2010

	No, not at all			Not often			Sometimes			Yes, definitely		
		95% CI			95% CI			95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	**63.0**	57.1	68.4	**6.0***	3.5	10.1	**8.0**	5.1	12.3	**23.0**	18.6	28.1
North & West Metropolitan	**67.9**	62.8	72.6	**6.2**	4.1	9.4	**9.9**	7.1	13.6	**16.0**	12.6	20.1
Southern Metropolitan	**68.9**	63.6	73.7	**4.4***	2.5	7.7	**10.9**	7.7	15.2	**15.7**	12.6	19.4
All metropolitan males	**67.0**	63.9	69.9	**5.6**	4.2	7.4	**9.6**	7.8	11.8	**17.7**	15.5	20.1
Barwon-South Western	**45.3**	39.1	51.6	**5.2***	3.1	8.6	**13.6**	9.4	19.2	**35.1**	29.3	41.4
Gippsland	**49.9**	42.7	57.0	**5.2***	2.8	9.6	**9.8**	6.9	13.7	**34.9**	28.5	41.8
Grampians	**51.6**	45.1	58.0	**8.1***	4.9	13.2	**9.2**	6.3	13.2	**31.1**	25.5	37.3
Hume	**47.4**	40.7	54.2	**5.9***	3.1	11.2	**11.1**	7.3	16.5	**35.3**	29.5	41.5
Loddon Mallee	**48.0**	41.7	54.5	**7.9***	4.7	12.8	**12.4**	9.0	16.8	**31.7**	26.2	37.7
All rural males	**47.9**	44.8	51.0	**6.5**	5.0	8.4	**11.3**	9.5	13.4	**34.0**	31.2	37.0
All Victorian males	**62.0**	**59.6**	**64.4**	**5.8**	**4.7**	**7.2**	**10.1**	**8.6**	**11.8**	**21.9**	**20.1**	**23.8**
FEMALES												
Eastern Metropolitan	**63.6**	59.3	67.6	**5.6**	3.7	8.4	**9.2**	6.8	12.4	**21.3**	18.3	
North & West Metropolitan	**66.6**	62.5	70.5	**5.8**	4.0	8.3	**9.7**	7.4	12.7	**17.7**	14.7	24.7
Southern Metropolitan	**66.1**	61.7	70.2	**4.5**	2.9	6.8	**8.3**	6.3	10.7	**21.0**	17.6	25.0
All metropolitan females	**65.4**	62.9	67.8	**5.4**	4.2	6.8	**9.2**	7.8	10.8	**19.8**	17.9	21.9
Barwon-South Western	**51.2**	45.9	56.5	**8.1**	5.3	12.0	**14.0**	10.4	18.5	**26.7**	22.8	31.1
Gippsland	**53.4**	48.2	58.5	**3.7***	2.2	6.3	**13.1**	10.0	16.9	**29.8**	25.3	34.6
Grampians	**55.9**	50.8	60.9	**3.2***	1.8	5.6	**13.4**	10.2	17.6	**27.1**	23.0	31.5
Hume	**58.1**	53.3	62.8	**5.5**	3.6	8.1	**11.5**	8.4	15.6	**24.9**	21.4	28.7
Loddon Mallee	**55.1**	50.6	59.4	**5.5**	3.6	8.2	**10.3**	7.9	13.3	**29.0**	25.2	33.0
All rural females	**54.2**	51.9	56.5	**5.6**	4.5	7.0	**12.5**	11.0	14.2	**27.5**	25.7	29.5
All Victorian females	**62.4**	**60.4**	**64.3**	**5.4**	**4.5**	**6.5**	**10.1**	**8.9**	**11.4**	**22.0**	**20.4**	**23.6**

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below Victoria.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution

Trend over time

Table 8.50 shows the proportion of males and females who volunteered to help out a local group over time, between 2005 and 2010. The proportion of all persons who volunteered significantly declined between 2005 and 2010.

Table 8.50 Volunteering, by sex, 2005-2010

	No			Not often			Sometimes			Yes		
		95% CI			95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
2005	**59.6**	57.2	61.9	**5.9**	4.8	7.1	**12.1**	10.6	13.9	**22.3**	20.5	24.2
2006	**61.1**	58.7	63.5	**5.0**	4.0	6.1	**11.8**	10.2	13.7	**21.9**	20.1	23.9
2007	**58.0**	55.5	60.5	**5.9**	4.8	7.2	**12.8**	11.2	14.7	**22.9**	20.9	25.1
2008	**61.9**	60.6	63.2	**5.3**	4.7	6.0	**10.2**	9.4	11.1	**22.4**	21.4	23.4
2009	**60.1**	57.8	62.3	**5.2**	4.2	6.4	**12.2**	10.8	13.8	**22.3**	20.5	24.2
2010	**65.4**	62.9	67.8	**5.4**	4.2	6.8	**9.2**	7.8	10.8	**19.8**	17.9	21.9
FEMALES												
2005	**59.6**	57.7	61.4	**4.8**	4.0	5.7	**10.8**	9.7	12.0	**24.8**	23.3	26.4
2006	**61.5**	59.6	63.4	**5.3**	4.4	6.3	**10.3**	9.2	11.5	**22.8**	21.3	24.4
2007	**60.6**	58.7	62.5	**4.6**	3.9	5.6	**12.5**	11.2	13.8	**22.0**	20.5	23.6
2008	**62.6**	61.6	63.6	**4.9**	4.4	5.4	**10.2**	9.5	10.8	**22.1**	21.3	22.9
2009	**61.4**	59.6	63.2	**6.5**	5.5	7.6	**11.4**	10.2	12.6	**20.6**	19.3	22.0
2010	**62.4**	60.4	64.3	**5.4**	4.5	6.5	**10.1**	8.9	11.4	**22.0**	20.4	23.6
PERSONS												
2005	**59.6**	58.1	61.1	**5.3**	4.6	6.1	**0.5**	10.5	12.4	**23.5**	22.3	24.7
2006	**61.3**	59.8	62.8	**5.1**	4.4	5.8	**0.5**	10.1	12.2	**22.4**	21.2	23.7
2007	**59.4**	57.8	61.0	**5.2**	4.6	6.0	**0.6**	11.6	13.8	**22.4**	21.2	23.8
2008	**62.3**	61.5	63.1	**5.1**	4.7	5.5	**0.3**	9.7	10.7	**22.2**	21.6	22.9
2009	**60.8**	59.3	62.2	**5.8**	5.1	6.6	**0.5**	10.8	12.8	**21.5**	20.3	22.6
2010	**62.2**	60.6	63.7	**5.6**	4.9	6.5	**10.1**	9.1	11.1	**22.0**	20.8	23.2

Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Ordinary least squares linear regression was used to test for trends over time.

Undertaking local action on behalf of the community

Survey respondents were asked if they had taken local action on behalf of the community as a member of a sports, church, school, professional, or other community or action group, in the previous two years.

Table 8.51 shows the data by age and sex. Less than half of all males (42.6 per cent) and females (38.9 per cent) who were a member of a sports, church, school, professional, or other community or action group reported having taken local action on behalf of the community within the past two years. There were no differences between the sexes or by age.

Table 8.51 Taken local action on behalf of community in past two years[(a)], by age and sex, 2010

Age group	Yes			No		
(years)		95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL
18-24	**37.9**	26.9	50.4	**54.7**	42.3	66.6
25-34	**44.7**	35.2	54.6	**52.5**	42.6	62.2
35-44	**41.8**	35.5	48.5	**54.1**	47.4	60.6
45-54	**44.8**	39.2	50.4	**51.3**	45.7	56.9
55-64	**46.6**	40.5	52.8	**50.0**	43.8	56.2
65+	**43.4**	38.4	48.6	**54.6**	49.4	59.7
All males	**42.6**	**39.5**	**45.8**	**53.5**	**50.3**	**56.7**
FEMALES						
18-24	**42.7**	31.5	54.7	**55.1**	43.2	66.5
25-34	**29.9**	23.1	37.7	**65.2**	57.1	72.5
35-44	**37.8**	33.3	42.6	**54.6**	49.7	59.4
45-54	**42.2**	37.4	47.2	**52.4**	47.3	57.3
55-64	**43.7**	38.7	48.9	**50.5**	45.4	55.7
65+	**38.2**	34.2	42.4	**57.0**	52.8	61.1
All females	**38.9**	**36.2**	**41.6**	**55.8**	**53.1**	**58.6**
PERSONS						
18-24	**40.0**	31.9	48.7	**54.9**	46.2	63.4
25-34	**37.6**	31.5	44.1	**58.5**	52.0	64.8
35-44	**39.7**	35.8	43.8	**54.3**	50.3	58.4
45-54	**43.6**	39.8	47.4	**51.8**	48.0	55.6
55-64	**45.2**	41.2	49.2	**50.3**	46.2	54.3
65+	**40.6**	37.4	43.9	**55.9**	52.6	59.1
All persons	**40.7**	**38.7**	**42.8**	**54.7**	**52.5**	**56.8**

(a) Percentages are derived from persons who reported being members of a sports, church, school, professional, or other community or action group.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data are crude estimates, except for the totals - which represent the estimates for Victoria that were age-standardised to the 2006 Victorian population.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.

Table 8.52 shows the data by Department of Health region. Males and females who resided in the rural regions who were members of a sports, church, school, professional or other community or action group were more likely than their metropolitan counterparts to have taken local action on behalf of the community within the past two years group. A higher proportion of males from Gippsland (55.5 per cent), Grampians (54.5 per cent), and Hume (58.6 per cent) Regions had undertaken local action, compared with all Victorian males (42.6 per cent). A higher proportion of females from Hume Region (49.7 per cent) had undertaken local action, compared with all Victorian females (38.9 per cent).

Table 8.52 Taken local action on behalf of community in past two years[(a)], by Department of Health region, 2010

	Yes			No		
		95% CI			95% CI	
MALES	%	LL	UL	%	LL	UL
Eastern Metropolitan	**40.9**	34.1	48.1	**56.6**	49.4	63.4
North & West Metropolitan	**37.6**	31.1	44.5	**59.1**	52.0	65.8
Southern Metropolitan	**38.6**	31.9	45.8	**55.5**	48.2	62.6
All metropolitan males	**39.0**	35.1	43.1	**56.9**	52.7	60.9
Barwon-South Western	**46.5**	38.4	54.8	**52.5**	44.3	60.6
Gippsland	**55.5**	47.0	63.6	**41.2**	33.2	49.7
Grampians	**54.5**	46.0	62.7	**40.2**	32.1	48.8
Hume	**58.6**	49.2	67.4	**41.2**	32.4	50.7
Loddon Mallee	**47.5**	40.1	55.0	**42.0**	34.9	49.4
All rural males	**52.0**	48.0	56.0	**44.5**	40.6	48.4
All Victorian males	**42.6**	**39.5**	**45.8**	**53.5**	**50.3**	**56.7**
FEMALES						
Eastern Metropolitan	**38.0**	32.8	43.4	**55.3**	48.0	62.4
North & West Metropolitan	**34.1**	28.8	39.8	**59.0**	53.2	64.5
Southern Metropolitan	**37.7**	32.3	43.4	**57.8**	52.0	63.5
All metropolitan females	**36.9**	33.5	40.4	**57.5**	53.9	61.0
Barwon-South Western	**41.9**	34.8	49.3	**53.6**	46.3	60.8
Gippsland	**40.5**	34.5	46.9	**53.5**	47.1	59.7
Grampians	**43.5**	36.7	50.5	**50.0**	43.1	56.9
Hume	**49.7**	44.1	55.3	**47.1**	41.5	52.7
Loddon Mallee	**45.6**	39.7	51.7	**50.8**	44.7	56.8
All rural females	**44.3**	41.1	47.6	**51.6**	48.3	54.8
All Victorian females	**38.9**	**36.2**	**41.6**	**55.8**	**53.1**	**58.6**

(a) Percentages are derived from persons who reported being members of a sports, church, school, professional, or other community or action group.
Note that the figures may not add up to 100 per cent due to a proportion of 'don't know' or 'refused' responses
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval
Estimates have been age standardised to the 2006 Victorian population
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above / below the Victorian estimate

Reference

AIHW (Australian Institute of Health and Welfare) 2007, 'Indicators of social cohesion', *Australia's Welfare 2007*, cat. no. AUS 93, Canberra.

9 Social disparities in health

This section examines the distribution of particular diseases and conditions among selected social groups in Victoria. These data demonstrate a strong performance overall, but also a pattern of social and health disparities that limit the life chances of many persons and create an economic burden for society.

Governments have long recognised the importance of ensuring access to clean water, good housing and sanitation as prerequisites for good health. Advances in clinical practice, medical technology and epidemiology have also enabled health practitioners to better diagnose and treat many diseases and conditions, and their risk factors. Such advances have significantly increased life expectancy and improved population health over the past few decades. But these health gains have not been equally shared across the entire population; certain groups in our society have poorer health than others. The differences in health status that exist between groups are referred to as 'health disparities'.

Some health disparities are due to genetic or biological variations and/or result from lifestyle choices. Other disparities in people's health are not so easily explained. Despite significant achievements in public health in Victoria over the past century, the evidence on socioeconomic status (SES) and health in Australia is unequivocal: people lower in the socioeconomic hierarchy fare significantly worse in terms of their health. Specifically, those classified as having low SES have higher mortality rates for most major causes of death. Their morbidity profile indicates they experience more ill health (both physiological and psychosocial), and their use of health care services suggests they are less likely, or may have less opportunity, to act to prevent disease or detect it at an early stage. Moreover, socioeconomic differences in health are evident for both males and females at every stage of the life course (birth, infancy, childhood, adolescence and adulthood), and the relationship exists irrespective of how SES and health are measured (Turrell et al. 1999).

Socioeconomic status is typically measured by attributes that include educational attainment, occupational status and income. Greater levels of educational attainment are associated with higher levels of knowledge and other non-material resources likely to promote a healthy lifestyle. Education also provides formal qualifications that affect occupational status and associated income level. Occupational status reflects social status and power, and material conditions related to paid work. Income provides individuals and families with necessary material resources and determines their purchasing power for accessing goods and services needed to maintain good health (Lahelma et al. 2004).

To tackle health disparities, it must be accepted that they exist, that they have significant social and economic consequences and that they can be prevented. The Victorian Population Health Survey provides valuable data in this regard because it measures socioeconomic differences and a range of health and behavioural variables.

Survey results

- There was a significant difference between the sexes, with females (13.1 per cent) being more likely than males (7.5 per cent) to report a total annual household income of less than $20,000, and males (24.4 per cent) being more likely than females (16.9 per cent) to report a total annual household income of $100,000 or more.

- About one-third of persons (33.2 per cent) who reported total annual household incomes of less than $20,000 rated their overall health status as fair or poor, compared with 12.4 per cent of persons who reported household incomes of $100,000 or more.

- The prevalence of fair or poor self-reported health status in both males and females significantly decreased with increasing household income. That is, there was a typical socioeconomic gradient—as household income increased, overall health status improved.

- More than one in five persons (27.2 per cent) who reported a total annual household income of less than $20,000 had high or very high levels of psychological distress, compared with more than one in fifteen persons (6.5 per cent) who reported household incomes of $100,000 or more.

- Psychological distress showed a significant typical socioeconomic gradient, where the prevalence of high or very high levels of psychological distress in both males and females decreased with increasing household income.

- Twice as many persons (30.9 per cent) who reported household incomes of $20,000 or less had ever been diagnosed by a doctor with depression or anxiety in their lifetime, compared with persons (14.9 per cent) who reported household incomes of $100,000 or more.

- There was a significant typical socioeconomic gradient for both males and females, where the prevalence of depression and anxiety decreased with increasing household income.

- A statistically significant socioeconomic gradient of the prevalence of type 1 or type 2 diabetes was not evident for either males or females.

- More than twice as many persons who reported household incomes of less than $20,000 were current smokers (28.1 per cent), compared with persons who reported household incomes of $100,000 or more (10.2 per cent).

- There was a significant typical socioeconomic gradient for both males and females, where the prevalence of smoking decreased with increasing household income.

- More than one-quarter of males and almost one-third of females who reported household incomes of less than $20,000 abstained from alcohol consumption, compared with less than one in twenty males (4.9 per cent) and less than one in ten females (9.4 per cent) who reported household incomes of $100,000 or more.

- There was a strong socioeconomic gradient, where the proportion of males and females who abstained from alcohol consumption decreased with increasing household income.

- There was a significant reverse socioeconomic gradient, where the proportion of persons who consumed alcohol, at least yearly, at levels that put them at short-term risk of alcohol-related harm increased with increasing household income.

- There was a significant reverse socioeconomic gradient, where the proportion of females and persons who consumed alcohol, at least monthly, at levels that put them at short-term risk of alcohol-related harm increased with increasing household income.

- There were no statistically significant socioeconomic gradients in the proportion of males or females who consumed alcohol, at least weekly, at levels that put them at short-term risk of alcohol-related harm.

- There were no statistically significant socioeconomic gradients in the proportion of males or females at long-term risk of alcohol-related harm, by household income.

- There were no statistically significant socioeconomic gradients in the proportion of males or females who did or did not meet the Australian recommended guidelines for weekly physical activity, by total annual household income.

- There was a significant typical socioeconomic gradient in females, where the proportion that did not meet the guidelines for fruit consumption decreased with increasing income.

- There were no statistically significant socioeconomic gradients in the proportion of males or females who met or did not meet the guidelines for daily vegetable consumption.

- There was a significant reverse socioeconomic gradient in persons, where the prevalence of overweight increased with increasing household income.

- There were statistically significant typical socioeconomic gradients in females and persons, where the prevalence of obesity decreased with increasing income.

Total annual household income

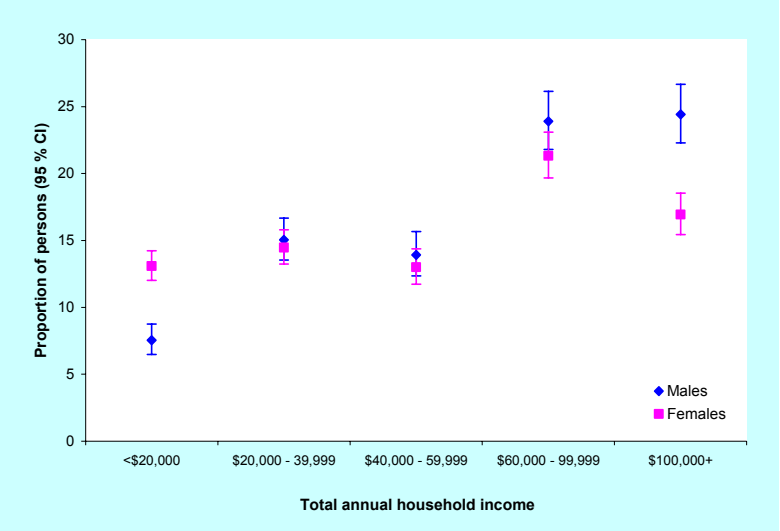
The VPHS collects household and individual-level information on a number of socio-demographic characteristics including total annual household income, employment status, highest level of educational attainment, occupation, marital status, household composition and living arrangements. These and other data collectively form the basis for determining a person's socioeconomic status and are used by the Australian Bureau of Statistic (ABS) to calculate the area-based Index of Relative Socioeconomic Disadvantage (IRSED). The ABS determines an overall IRSED score for a given geographic area such as an LGA and thus socio-economic status is assigned based on area of residence.

However, any given IRSED score does not represent a person or household, and individuals within a given LGA can differ markedly in their socioeconomic status. For example, the LGA of Boroondara is rated as being one of the least socioeconomically disadvantaged LGAs in Victoria and yet contains substantial pockets of persons in public housing. Typically investigations of health disparities are conducted using IRSED scores, as this is usually the only data available. However area-based socioeconomic status often lacks the sensitivity to detect social gradients in various health outcomes. Therefore, use of individual level data such as total household income as a proxy measure for socioeconomic status is far more sensitive and these data are available in this survey. The following section uses total annual household income as the proxy measure for socioeconomic status.

This section presents total household income as a proxy for socioeconomic status, by sex. Respondents were asked to indicate the range into which their total annual household income would fall. Total annual household income includes all sources of income, such as wages, family tax benefits and child support payments.

Figure 9.1 shows the proportion of males and females by total annual household income. There was a significant difference between the sexes, with females (13.1 per cent) being more likely than males (7.5 per cent) to report a total annual household income of less than $20,000, and males (24.4 per cent) being more likely than females (16.9 per cent) to report a total annual household income of $100,000 or more.

Figure 9.1 Total annual household income, by sex, 2010



The data were age-standardised to the 2006 Victorian population.

Health outcomes by total annual household income

Self-reported health status

Self-reported health status has been shown to be a reliable predictor of ill health, future health care use and premature mortality, independent of other medical, behavioural or psychosocial risk factors (Idler & Benyami 1997, Miilunpalo et al 1997, Burstrom & Fredlund 2001).

Table 9.1 shows self-reported health status by total annual household income, by sex. Less than one-third of persons (30.1 per cent) who reported total annual household incomes of less than $20,000 rated their overall health status as excellent or very good, compared with more than half of persons (54.4 per cent) who reported household incomes of $100,000 or more. By contrast, approximately one-third of persons (33.2 per cent) who reported household incomes of less than $20,000 rated their overall health status as fair or poor, compared with only 12.4 per cent of persons who reported household incomes of $100,000 or more.

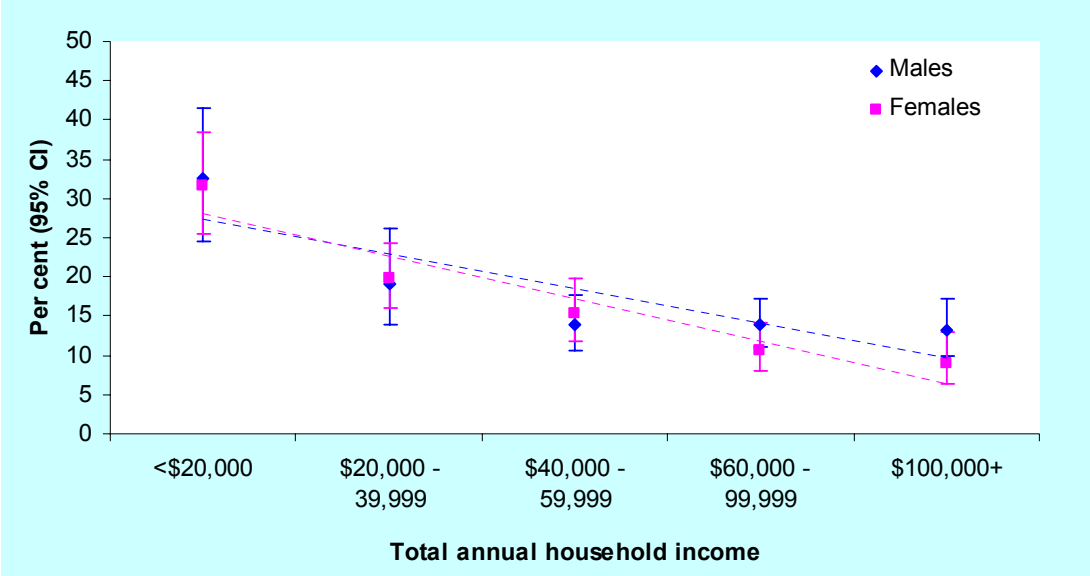
Table 9.1 Self-reported health status, by household income and sex, 2010

Household income	Excellent or very good			Good			Fair or poor		
		95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
<$20,000	**32.2**	24.2	41.4	**34.9**	27.7	43.0	**32.5**	24.6	41.5
$20,000 - 39,999	**43.1**	35.6	51.1	**37.0**	30.4	44.0	**19.2**	13.8	26.1
$40,000 - 59,999	**51.3**	45.0	57.7	**34.8**	28.9	41.2	**13.8**	10.7	17.7
$60,000 - 99,999	**46.9**	41.4	52.5	**39.1**	33.7	44.8	**14.0**	11.2	17.3
$100,000+	**51.2**	46.0	56.2	**35.7**	30.8	40.8	**13.1**	9.9	17.3
FEMALES									
<$20,000	**32.7**	25.7	40.6	**35.6**	28.3	43.6	**31.6**	25.5	38.5
$20,000 - 39,999	**38.4**	32.6	44.5	**41.3**	35.3	47.5	**19.8**	15.9	24.3
$40,000 - 59,999	**49.0**	43.5	54.5	**35.6**	30.7	40.7	**15.4**	11.9	19.7
$60,000 - 99,999	**52.4**	47.5	57.2	**34.9**	30.6	39.3	**10.7**	8.0	14.1
$100,000+	**59.1**	53.6	64.5	**29.7**	24.9	35.1	**9.0**	6.3	12.9
PERSONS									
<$20,000	**30.1**	24.5	36.3	**36.5**	30.6	42.9	**33.2**	27.3	39.6
$20,000 - 39,999	**41.2**	36.4	46.1	**38.1**	33.6	42.9	**20.1**	16.6	24.2
$40,000 - 59,999	**50.3**	45.9	54.6	**34.7**	30.8	38.9	**15.0**	12.3	18.2
$60,000 - 99,999	**50.4**	46.6	54.1	**36.9**	33.4	40.5	**12.8**	10.6	15.4
$100,000+	**54.4**	49.9	58.8	**33.1**	29.1	37.4	**12.4**	9.6	15.9

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.

Figure 9.2 shows the prevalence of fair or poor self-reported health status in males and females, by total annual household income. The prevalence of fair or poor self-reported health status in both males and females significantly decreased with increasing household income. That is, there was a typical socioeconomic gradient—as household income increased, overall health status improved.

Figure 9.2 Prevalence of fair or poor self-reported health status, by household income and sex, 2010



Data were age-standardised to the 2006 Victorian population.
Ordinary least squares regression was used to test for significance of socioeconomic gradient.

Psychological distress

The survey included the Kessler Psychological Distress Scale (K10) to measure the level of psychological distress experienced by the survey respondent in the four weeks prior to the survey. Studies that have investigated the sensitivity and specificity of the K10 have concluded that it is a useful screening instrument for identifying likely cases of anxiety and depression in the community (ABS 2001). The higher the K10 score, the higher the level of psychological distress experienced by the individual and the more likely the possibility that the individual may be experiencing depression and/or anxiety.

Table 9.2 shows the levels of psychological distress, by total annual household income and sex. More than one in five persons (27.2 per cent) who reported a total annual household income of less than $20,000 had high or very high levels of psychological distress, compared with more than one in fifteen persons (6.5 per cent) who reported household incomes of $100,000 or more.

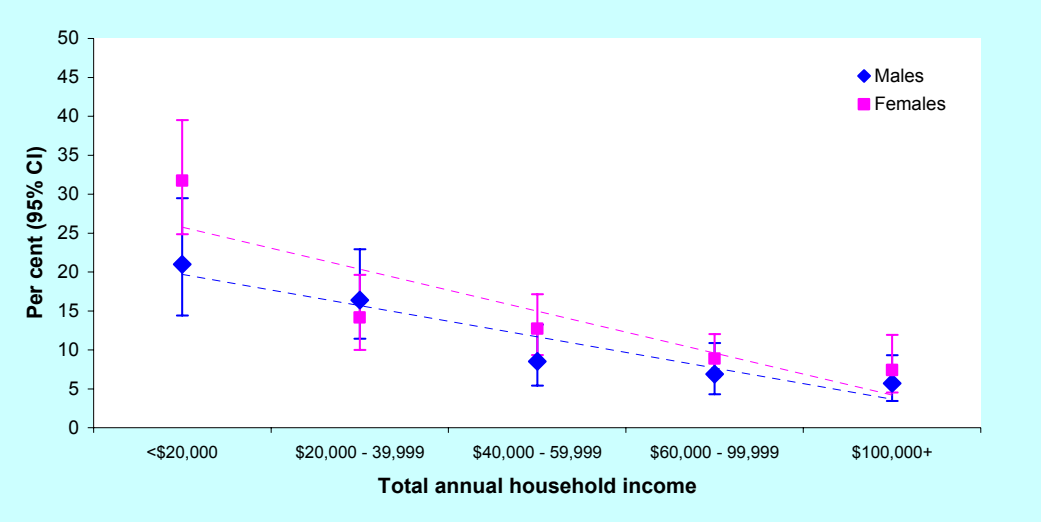
Table 9.2 Psychological distress, by household income and sex, 2010

Household income	Low (K10 score < 16)			Moderate (K10 score: 16 to 21)			High and very high (K10 score: 22 to 50)		
		95% CI			95% CI			95% CI	
MALES	%	LL	UL	%			%		
<$20,000	**58.8**	49.1	67.9	**14.1**	8.9	21.6	**21.0**	14.4	29.5
$20,000 - 39,999	**58.6**	50.5	66.2	**21.4**	15.4	29.0	**16.4**	11.4	22.9
$40,000 - 59,999	**68.6**	61.9	74.6	**20.9**	15.9	26.8	**8.5**	5.4	13.2
$60,000 - 99,999	**71.6**	67.0	75.8	**19.7**	16.6	23.2	**6.9**	4.3	10.9
$100,000+	**74.2**	68.9	78.9	**18.9**	14.7	24.0	**5.7**	3.5	9.3
FEMALES									
<$20,000	**38.2**	31.5	45.4	**26.0**	21.0	31.9	**31.7**	24.9	39.5
$20,000 - 39,999	**60.4**	54.5	66.0	**20.8**	17.0	25.4	**14.2**	10.0	19.6
$40,000 - 59,999	**58.1**	52.4	63.5	**25.6**	21.0	30.7	**12.7**	9.3	17.1
$60,000 - 99,999	**63.4**	59.4	67.2	**23.9**	20.2	28.1	**8.9**	6.5	12.0
$100,000+	**71.9**	66.6	76.7	**17.7**	13.8	22.4	**7.4**	4.5	11.9
PERSONS									
<$20,000	**46.6**	40.3	52.9	**21.4**	16.7	27.0	**27.2**	21.8	33.5
$20,000 - 39,999	**59.7**	54.8	64.5	**21.9**	18.0	26.3	**14.1**	11.0	18.0
$40,000 - 59,999	**63.6**	59.2	67.8	**23.0**	19.5	26.9	**10.3**	7.8	13.4
$60,000 - 99,999	**68.8**	65.4	71.9	**21.6**	18.9	24.6	**7.9**	6.0	10.4
$100,000+	**72.5**	68.3	76.3	**19.9**	16.4	23.9	**6.5**	4.6	9.3

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for females are identified by colour as follows: above / below females.

Figure 9.3 shows the prevalence of high or very high levels of psychological distress in males and females, by total annual household income. There was a significant typical socioeconomic gradient, where the prevalence of high or very high levels of psychological distress in both males and females decreased with increasing household income.

Figure 9.3 Prevalence of high or very high levels of psychological distress, by total annual household income and sex, 2010



Estimates have been age standardised to the 2006 Victorian population
Ordinary least squares regression was used to test for significance of socioeconomic gradient

Depression and/or anxiety

Survey respondents were asked if they had ever been diagnosed with depression and/or anxiety by a doctor. Table 9.3 shows the prevalence of depression and/or anxiety in males and females, by total annual household income. At every household income level, with the exception of those who reported household incomes of $20,000 or less, males were significantly less likely to report having ever been diagnosed by a doctor with depression and/or anxiety. Twice as many persons (30.9 per cent) who reported household incomes of $20,000 or less had been diagnosed with depression and/or anxiety, compared with persons (14.9 per cent) who reported household incomes of $100,000 or more.

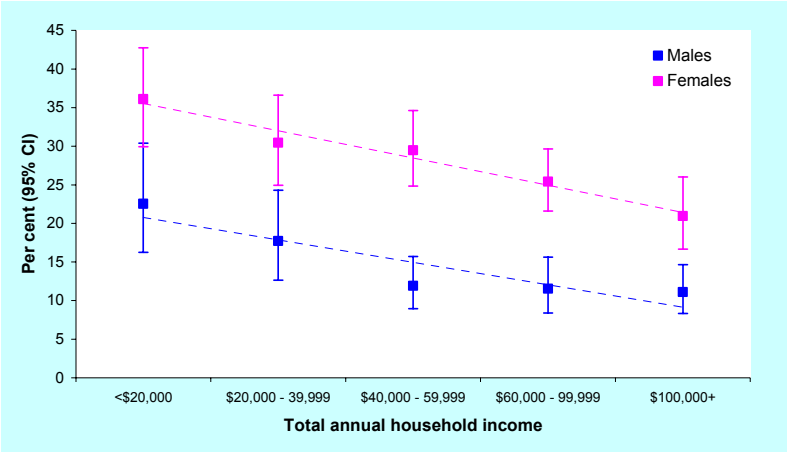
Table 9.3 Prevalence of depression and/or anxiety, by household income and sex. 2010

Household income		95% CI	
MALES	**%**	LL	UL
<$20,000	**22.5**	16.2	30.4
$20,000 - 39,999	**17.7**	12.7	24.3
$40,000 - 59,999	**11.9**	9.0	15.7
$60,000 - 99,999	**11.5**	8.4	15.6
$100,000+	**11.1**	8.3	14.7
FEMALES			
<$20,000	**36.1**	29.9	42.7
$20,000 - 39,999	**30.5**	24.9	36.6
$40,000 - 59,999	**29.5**	24.8	34.6
$60,000 - 99,999	**25.4**	21.6	29.6
$100,000+	**21.0**	16.7	26.0
PERSONS			
<$20,000	**30.9**	26.3	36.0
$20,000 - 39,999	**24.2**	20.5	28.3
$40,000 - 59,999	**20.5**	17.5	23.9
$60,000 - 99,999	**18.3**	15.6	21.3
$100,000+	**14.9**	12.6	17.6

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for females are identified by colour as follows: above / below females.

Figure 9.4 shows the prevalence of depression and/or anxiety in males and females, by total annual household income. There was a significant typical socioeconomic gradient for both males and females, where the prevalence of depression and/or anxiety decreased with increasing household income.

Figure 9.4 Prevalence of depression and/or anxiety, by total household income and sex, 2010



Estimates have been age standardised to the 2006 Victorian population
Ordinary least squares regression was used to test for significance of socioeconomic gradient

Diabetes mellitus

Survey respondents were asked if they had ever been diagnosed with diabetes by a doctor and if so, what type. Table 9.3 shows the prevalence of type 1 or type 2 diabetes in males and females, by total annual household income. Males who reported total annual household incomes of less than $20,000 or $100,000 or more, were significantly more likely to have ever been diagnosed by a doctor with type 1 or type 2 diabetes than their females counterparts. However, a statistically significant socioeconomic gradient was not evident for either males or females.

Table 9.4 Prevalence of diabetes[(a)], by household income and sex, 2010

	MALES			FEMALES			PERSONS		
HOUSEHOLD		95% CI			95% CI			95% CI	
INCOME	%	LL	UL	%	LL	UL	%	LL	UL
<$20,000	**11.1**	8.2	14.9	**5.3**	3.9	7.1	**7.2**	5.7	9.2
$20,000 - 39,999	**5.2**	3.9	7.0	**4.8**	3.7	6.4	**4.9**	4.1	6.0
$40,000 - 59,999	**6.8**	4.7	9.9	**3.3**	2.2	5.1	**5.4**	4.0	7.2
$60,000 - 99,999	**4.3**	2.7	6.8	**4.4***	2.6	7.2	**4.6**	3.2	6.6
$100,000+	**5.6**	3.6	8.6	**1.2***	0.5	2.7	**4.5**	2.9	7.0

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Data were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for females are identified by colour as follows: above / below females.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Lifestyle risk factors by total annual household income

Smoking

Table 9.5 shows smoking status in males and females, by total annual household income. There were no statistically significant differences between the sexes at any household income level in the prevalence of smoking. More than twice as many persons who reported household incomes of less than $20,000 were current smokers (28.1 per cent), compared with persons who reported household incomes of $100,000 or more (10.2 per cent).

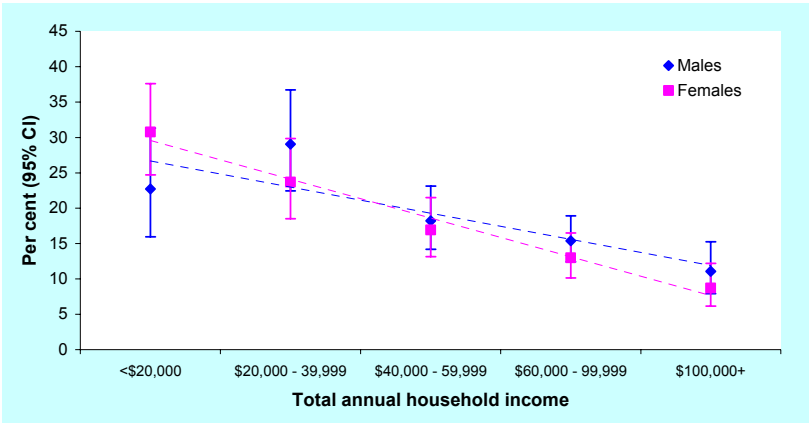
Table 9.5 Smoking status, by total annual household income and sex, 2010

Household income	Current smoker			Ex-smoker			Non-smoker		
		95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
<$20,000	**22.7**	15.9	31.3	**30.6**	22.4	40.3	**46.6**	37.9	55.5
$20,000 - 39,999	**29.1**	22.4	36.7	**31.6**	26.4	37.4	**39.3**	31.7	47.4
$40,000 - 59,999	**18.2**	14.2	23.1	**31.7**	26.3	37.7	**50.0**	43.6	56.5
$60,000 - 99,999	**15.4**	12.4	18.9	**31.2**	27.0	35.9	**53.4**	48.6	58.1
$100,000+	**11.1**	7.9	15.3	**31.3**	26.8	36.2	**57.6**	52.0	63.0
FEMALES									
<$20,000	**30.8**	24.7	37.6	**17.9**	13.9	22.7	**50.4**	44.0	56.8
$20,000 - 39,999	**23.7**	18.5	29.8	**21.7**	17.8	26.0	**54.2**	48.4	59.9
$40,000 - 59,999	**16.9**	13.2	21.5	**24.9**	20.8	29.5	**57.7**	52.2	63.0
$60,000 - 99,999	**13.0**	10.1	16.5	**23.4**	20.0	27.1	**61.4**	57.1	65.6
$100,000+	**8.7**	6.2	12.2	**27.7**	23.8	32.0	**61.3**	56.3	66.1
PERSONS									
<$20,000	**28.1**	23.1	33.6	**23.2**	18.4	28.7	**48.1**	42.2	54.1
$20,000 - 39,999	**25.2**	21.1	29.7	**27.0**	23.4	30.8	**47.6**	43.0	52.3
$40,000 - 59,999	**17.8**	14.8	21.2	**28.3**	24.8	32.1	**53.5**	49.2	57.8
$60,000 - 99,999	**14.5**	12.2	17.1	**28.2**	25.1	31.5	**57.3**	53.7	60.8
$100,000+	**10.2**	7.9	13.2	**30.3**	26.7	34.3	**59.4**	55.0	63.6

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for females are identified by colour as follows: above / below females.

Figure 9.5 shows the prevalence of smoking in males and females, by total annual household income. There was a significant typical socioeconomic gradient for both males and females, where the prevalence of smoking decreased with increasing household income.

Figure 9.5 Prevalence of smoking, by total annual household income and sex, 2010



Estimates have been age standardised to the 2006 Victorian population
Ordinary least squares regression was used to test for significance of socioeconomic gradient

Alcohol consumption

Risk of alcohol-related harm has been categorised into short-term and long-term risk (NHMRC 2001). Short-term risk is the risk of harm associated with given levels of alcohol consumption on a single day that can result in injury and death due to trauma. Long-term risk is associated with regular daily patterns of drinking alcohol, defined in terms of the amount typically consumed each week. Long-term harm includes conditions such as cirrhosis of the liver, pancreas damage and heart and blood disorders.

Table 9.6 shows the data for short-term risk of alcohol-related harm, by total annual household income and sex. There were few differences by sex, with the exception that males who reported household incomes of $60,000 to $99,000 (13.9 per cent) and $100,000 and above (13.1 per cent) were more likely to consume alcohol on a weekly basis that put them at short-term risk of alcohol-related harm, compared with their female counterparts (7.4 and 6.1 per cent, respectively).

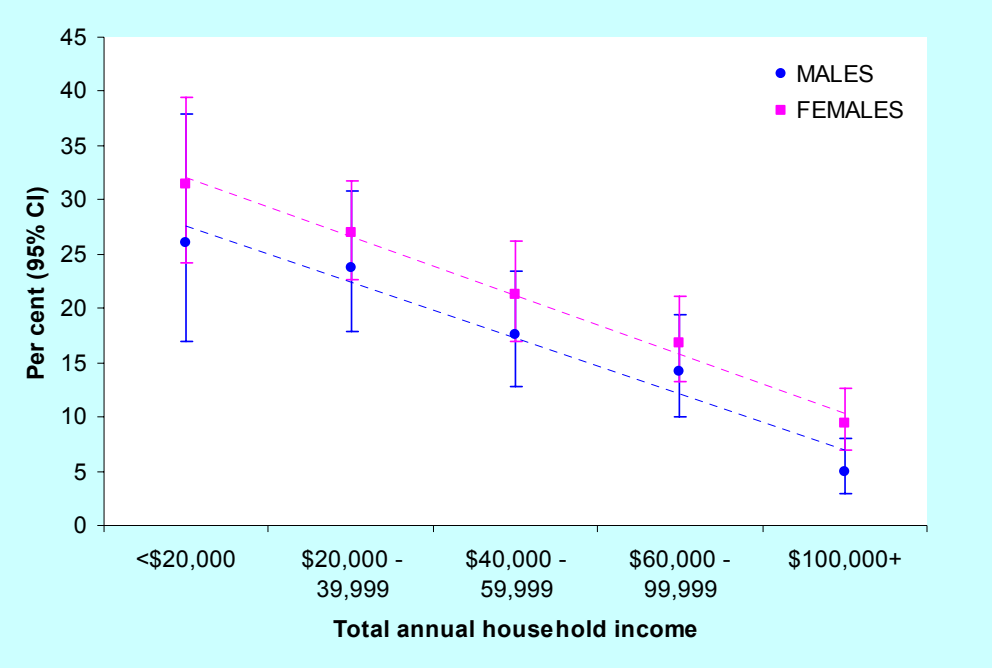
Table 9.6 Short-term risk of alcohol-related harm, by household income and sex, 2010

Household income	Abstainer	95% CI		Low risk	95% CI		At least yearly	95% CI		At least monthly	95% CI		At least weekly	95% CI	
MALES	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
<$20,000	**26.0**	16.9	37.9	**36.3**	27.6	46.1	**18.0**	11.4	27.2	**7.2***	3.9	13.1	**11.6***	6.8	19.1
$20,000 - 39,999	**23.7**	17.8	30.9	**29.7**	23.3	37.2	**17.3**	12.1	24.2	**17.3**	11.7	24.8	**11.4**	8.0	16.0
$40,000 - 59,999	**17.5**	12.8	23.5	**30.0**	25.5	35.0	**25.5**	20.2	31.7	**11.7**	8.2	16.4	**14.7**	10.6	20.2
$60,000 - 99,999	**14.1**	10.1	19.4	**33.3**	28.4	38.7	**22.9**	18.9	27.3	**15.6**	11.7	20.4	**13.9**	10.9	17.6
$100,000+	**4.9***	2.9	8.1	**36.9**	32.3	41.7	**25.6**	21.2	30.5	**19.5**	15.8	23.9	**13.1**	9.7	17.6
FEMALES															
<$20,000	**31.4**	24.2	39.5	**33.6**	28.1	39.6	**20.6**	14.7	28.1	**7.5***	4.1	13.1	**5.2***	2.6	10.0
$20,000 - 39,999	**27.0**	22.6	31.8	**39.4**	34.3	44.8	**19.0**	14.2	25.0	**8.9***	5.4	14.5	**4.8***	2.5	8.8
$40,000 - 59,999	**21.2**	16.9	26.2	**41.1**	36.5	45.9	**18.7**	14.8	23.3	**8.6**	6.1	12.0	**9.3**	6.5	13.1
$60,000 - 99,999	**16.8**	13.3	21.1	**38.5**	34.0	43.2	**22.5**	19.2	26.1	**12.6**	10.0	15.8	**7.4**	5.2	10.4
$100,000+	**9.4**	6.9	12.6	**44.6**	40.1	49.1	**22.7**	18.0	28.2	**15.0**	11.0	20.2	**6.1**	3.9	9.4
PERSONS															
<$20,000	**29.1**	23.4	35.4	**35.4**	29.6	41.6	**18.4**	14.0	23.7	**7.9**	4.9	12.5	**8.2**	5.0	13.1
$20,000 - 39,999	**26.5**	22.5	31.0	**35.8**	31.6	40.2	**18.1**	14.4	22.4	**11.4**	8.2	15.6	**7.5**	5.5	10.1
$40,000 - 59,999	**18.9**	15.7	22.6	**35.5**	32.1	39.1	**22.2**	18.8	26.0	**10.3**	8.0	13.1	**12.3**	9.6	15.5
$60,000 - 99,999	**15.6**	12.6	19.1	**35.8**	32.3	39.6	**22.9**	20.3	25.8	**14.7**	12.1	17.8	**10.8**	8.8	13.2
$100,000+	**6.8**	5.0	9.1	**40.0**	36.4	43.7	**24.5**	21.0	28.3	**17.9**	14.9	21.3	**10.8**	8.2	14.1

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for females are identified by colour as follows: above / below females.

Figure 9.6 shows the proportion of males and females who abstained from alcohol consumption, by household income. More than one-quarter of males and almost one-third of females who reported household incomes of less than $20,000 abstained from alcohol consumption, compared with less than one in 20 males (4.9 per cent) and less than one in 10 females (9.4 per cent) who reported household incomes of $100,000 or more. There was a strong socioeconomic gradient, where the proportion of males and females who abstained from alcohol consumption decreased with increasing household income. Given that abstinence from alcohol consumption is considered to be beneficial for a person's health, this is an unexpected finding as positive findings in relation to health usually trend in favour of the more socioeconomically advantaged.

Figure 9.6 Proportion of males and females who abstained from alcohol consumption, by total annual household income, 2010

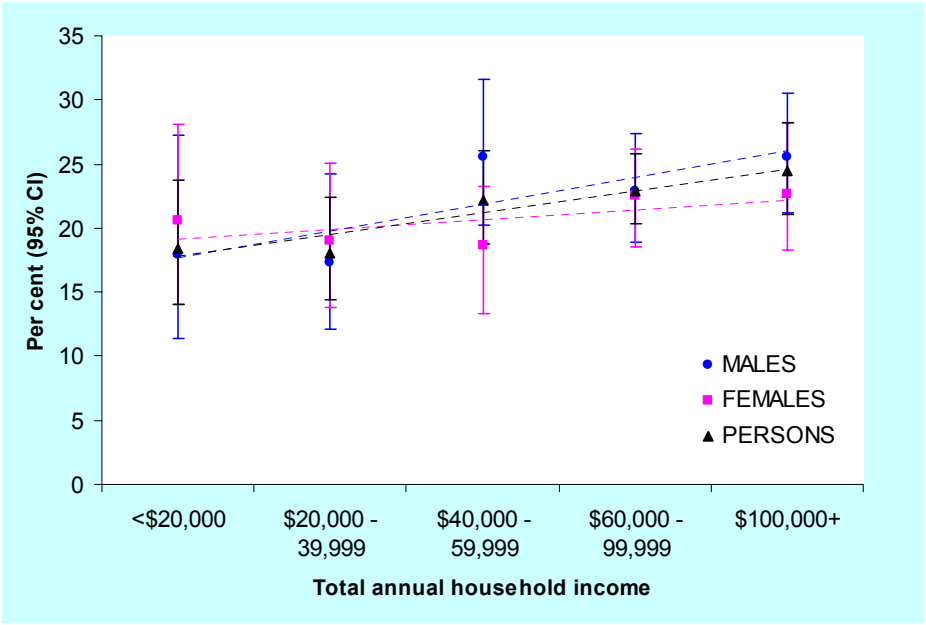


Data were age-standardised to the 2006 Victorian population.
Ordinary least squares regression was used to test for significance of socioeconomic gradient.

There was no socioeconomic gradient in the proportion of males or females who were at low risk of short-term risk of alcohol-related harm.

Figure 9.7 shows the proportion of persons who consumed alcohol, at least yearly, at levels that put them at short-term risk of alcohol-related harm, by total annual household income. There was a significant reverse socioeconomic gradient, where the proportion of persons who consumed alcohol, at least yearly, at levels that put them at short-term risk of alcohol-related harm increased with increasing household income. Similar socioeconomic gradients were observed in the data for males and females, but these did not reach statistical significance until the data for the sexes were combined. As with the findings for abstinence from alcohol consumption, the findings of a socioeconomic gradient opposite to the typical gradient usually observed for most health outcomes and their risk factors, where poorer outcomes are usually related to disadvantage rather than advantage, is of interest.

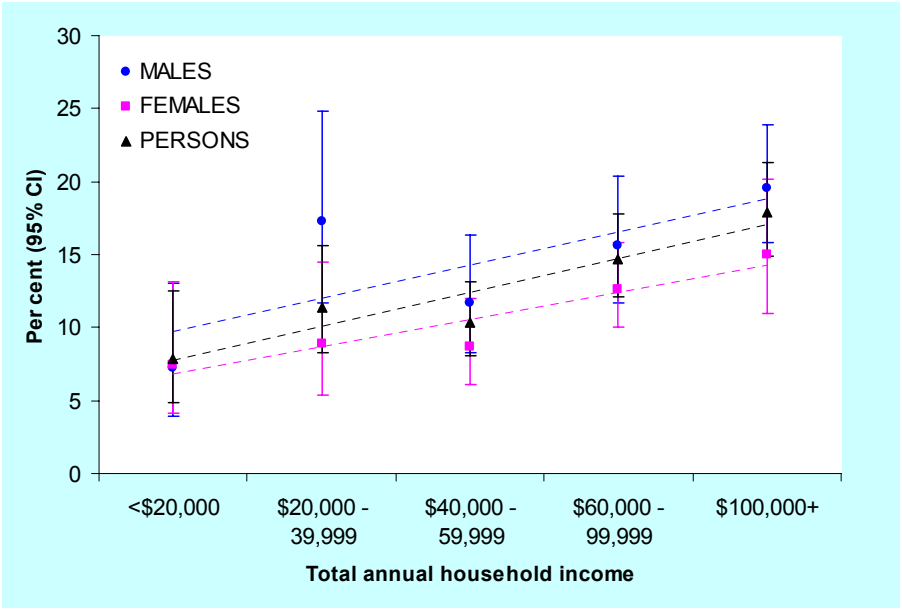
Figure 9.7 Proportion of persons at short-term risk of alcohol-related harm at least yearly, by total annual household income, 2010



Data were age-standardised to the 2006 Victorian population.
Ordinary least squares regression was used to test for significance of socioeconomic gradient.

Figure 9.8 shows the proportion of persons who consumed alcohol, at least monthly, at levels that put them at short-term risk of alcohol-related harm, by total annual household income. There was a significant reverse socioeconomic gradient, where the proportion of females and persons, but not males, who consumed alcohol, at least monthly, at levels that put them at short-term risk of alcohol-related harm increased with increasing household income.

Figure 9.8 Proportion of persons at short-term risk of alcohol-related harm at least monthly, by total annual household income, 2010



Data were age-standardised to the 2006 Victorian population.
Ordinary least squares regression was used to test for significance of socioeconomic gradient.

In contrast to the findings for abstinence and short-term risk of alcohol-related harm at least yearly or monthly, there were no socioeconomic gradients in the short-term risk of alcohol-related harm, at least weekly, for males, females or persons.

Table 9.7 shows the data for long-term risk of alcohol-related harm, by total annual household income and sex. The estimates of males and females who consumed levels of alcohol that put them at long-term risk of alcohol-related harm were associated with relative standard errors in excess of 25 per cent which mans that the data must be interpreted with caution. However, the estimates for both sexes combined were robust. There was no socioeconomic gradient in the proportion of persons at long-term risk of alcohol-related harm, by household income. At each level of income, less than one in 20 adults consumed sufficient alcohol to put them at long-term risk of alcohol-related harm.

Table 9.7 Long-term risk of alcohol-related harm, by household income and sex, 2010

	Abstainer			Low risk			Risky or high risk		
		95% CI			95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL	**%**	LL	UL
<$20,000	**26.0**	16.9	37.9	**69.6**	58.2	79.0	**4.2***	2.2	7.9
$20,000 - 39,999	**23.7**	17.8	30.9	**70.1**	62.8	76.5	**4.1***	2.4	7.0
$40,000 - 59,999	**17.5**	12.8	23.5	**78.3**	72.3	83.2	**3.6***	2.2	5.9
$60,000 - 99,999	**14.1**	10.1	19.4	**81.2**	75.7	85.7	**4.1***	2.4	7.1
$100,000+	**4.9***	2.9	8.1	**91.5**	87.6	94.3	**3.6***	2.0	6.5
FEMALES									
<$20,000	**31.4**	24.2	39.5	**61.9**	53.7	69.5	**3.3***	1.7	6.5
$20,000 - 39,999	**27.0**	22.6	31.8	**71.1**	66.3	75.5	**1.6***	0.9	2.8
$40,000 - 59,999	**21.2**	16.9	26.2	**73.0**	67.9	77.6	**4.8***	2.9	7.8
$60,000 - 99,999	**16.8**	13.3	21.1	**78.6**	74.3	82.3	**2.4***	1.5	4.0
$100,000+	**9.4**	6.9	12.6	**84.2**	80.6	87.1	**3.9**	2.5	6.1
PERSONS									
<$20,000	**29.1**	23.4	35.4	**65.6**	59.2	71.5	**3.5**	2.2	5.4
$20,000 - 39,999	**26.5**	22.5	31.0	**69.3**	64.5	73.6	**2.7**	1.8	4.1
$40,000 - 59,999	**18.9**	15.7	22.6	**76.3**	72.4	79.7	**4.1**	2.8	5.9
$60,000 - 99,999	**15.6**	12.6	19.1	**81.0**	77.4	84.1	**3.2**	2.1	4.7
$100,000+	**6.8**	5.0	9.1	**88.8**	85.8	91.2	**4.2**	2.8	6.5

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for females are identified by colour as follows: above / below females.
Ordinary least squares regression was used to test for significance of socioeconomic gradient.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Physical activity levels

Table 9.8 shows the proportion of males and females who did or did not meet the Australian guidelines for sufficient time and sessions of physical activity (DoHA 1999), by total annual household income. There were no statistically significant socioeconomic gradients in the proportion of males, females or persons who did or did not meet the Australian recommended guidelines for weekly physical activity, by total annual household income.

Figure 9.8 Physical activity, by total annual household income and sex, 2010

Household income	Insufficient time & sessions (includes sedentary)			Sufficient time & sessions		
		95% CI			95% CI	
MALES	**%**	LL	UL	**%**	LL	UL
<$20,000	**33.3**	25.2	42.6	**58.0**	49.0	66.5
$20,000 - 39,999	**44.4**	37.1	52.0	**52.0**	44.4	59.4
$40,000 - 59,999	**33.2**	28.2	38.7	**62.9**	57.6	67.9
$60,000 - 99,999	**34.4**	29.5	39.6	**56.4**	51.1	61.6
$100,000+	**29.9**	25.6	34.6	**67.4**	62.6	71.8
FEMALES						
<$20,000	**37.0**	31.4	42.9	**56.7**	50.2	63.0
$20,000 - 39,999	**40.3**	35.5	45.3	**50.1**	45.2	55.0
$40,000 - 59,999	**40.3**	35.2	45.5	**56.3**	51.0	61.4
$60,000 - 99,999	**34.5**	29.6	39.7	**61.0**	55.8	66.0
$100,000+	**28.7**	24.2	33.7	**65.8**	60.1	71.1
PERSONS						
<$20,000	**36.0**	31.0	41.3	**58.2**	52.8	63.5
$20,000 - 39,999	**45.0**	40.5	49.7	**49.8**	45.2	54.5
$40,000 - 59,999	**37.0**	33.2	40.9	**59.3**	55.4	63.2
$60,000 - 99,999	**36.1**	31.9	40.4	**60.0**	55.6	64.2
$100,000+	**29.5**	25.9	33.3	**67.7**	63.8	71.4

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for females are identified by colour as follows: above / below females.
Ordinary least squares regression was used to test for significance of socioeconomic gradient.

Fruit and vegetable consumption

Table 9.9 shows the proportion of males and females who did or did not meet the recommended Australian guidelines for daily consumption of fruit (NHMRC 2003), by total annual household income. Females who reported total annual household incomes of $40,000 or more were significantly more likely to have met the guidelines for fruit consumption, compared with their male counterparts.

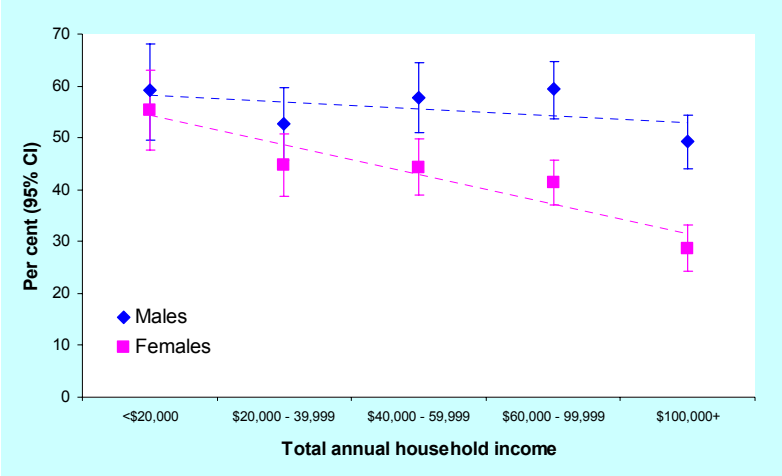
Table 9.9 Fruit consumption, by total annual household income and sex, 2010

	Did NOT meet guidelines			Met guidelines		
Males	**%**	95% CI		**%**	95% CI	
<$20,000	59.1	49.6	68.0	**35.8**	27.7	44.8
$20,000 - 39,999	52.7	45.6	59.8	**47.0**	40.0	54.1
$40,000 - 59,999	57.8	50.9	64.4	**41.7**	35.1	48.6
$60,000 - 99,999	59.4	53.7	64.8	**40.4**	35.0	46.1
$100,000+	49.2	43.9	54.5	**50.8**	45.5	56.0
Females						
<$20,000	55.4	47.6	62.9	**43.9**	36.4	51.7
$20,000 - 39,999	44.7	38.8	50.8	**55.1**	49.0	61.1
$40,000 - 59,999	44.3	39.0	49.7	**55.4**	49.9	60.7
$60,000 - 99,999	41.3	37.1	45.6	**56.3**	51.9	60.5
$100,000+	28.5	24.3	33.2	**69.0**	64.3	73.3
All persons						
<$20,000	59.4	53.5	65.1	**38.4**	32.9	44.2
$20,000 - 39,999	47.9	43.0	52.8	**51.9**	47.0	56.8
$40,000 - 59,999	51.5	47.0	55.9	**48.1**	43.7	52.5
$60,000 - 99,999	51.8	48.2	55.4	**47.9**	44.3	51.5
$100,000+	43.2	39.2	47.3	**56.6**	52.5	60.6

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for females are identified by colour as follows: above / below females.
Ordinary least squares regression was used to test for significance of socioeconomic gradient.

Figure 9.9 shows the proportion of males and females who did not meet the recommended guidelines for fruit consumption, by total annual household income. There was a significant typical socioeconomic gradient in females, but not males or persons, where the proportion that did not meet the guidelines for fruit consumption decreased with increasing income (figure 9.9).

Figure 9.9 Proportion of males and females who did not meet the guidelines for fruit consumption, by household income, 2010



Estimates have been age standardised to the 2006 Victorian population
Ordinary least squares regression was used to test for significance of socioeconomic gradient

Table 9.10 shows the proportion of males and females who did or did not meet the recommended Australian guidelines for daily consumption of vegetables (NHMRC 2003), by total annual household income. At every level of total annual household income, females were two to almost four times more likely to have met the guidelines for vegetable

consumption compared with their male counterparts. In those reporting household incomes of less than $20,000, almost four times as many females (12.3 per cent) had met the vegetable guidelines compared with their males counterparts (3.2 per cent). However, there were no statistically significant socioeconomic gradients in the proportion of males or females who met or did not meet the guidelines for daily vegetable consumption.

Table 9.10 Vegetable consumption, by total annual household income and sex, 2010

	Did NOT meet guidelines			Met guidelines		
Males	**%**	95% CI		**%**	95% CI	
<$20,000	92.1	84.2	96.2	**3.2***	1.7	6.0
$20,000 - 39,999	95.1	92.4	96.9	**3.0**	1.9	4.8
$40,000 - 59,999	94.3	91.6	96.2	**4.3**	2.8	6.6
$60,000 - 99,999	95.7	93.5	97.2	**3.2**	2.1	4.8
$100,000+	93.1	89.9	95.4	**6.7**	4.4	10.0
Females						
<$20,000	84.8	78.1	89.7	**12.3**	7.9	18.8
$20,000 - 39,999	90.2	87.5	92.4	**8.7**	6.6	11.3
$40,000 - 59,999	89.9	86.5	92.5	**9.8**	7.2	13.2
$60,000 - 99,999	87.7	84.8	90.0	**10.2**	7.9	13.1
$100,000+	82.5	77.7	86.4	**15.3**	11.4	20.2
All persons						
<$20,000	90.2	85.4	93.6	**6.1**	3.9	9.6
$20,000 - 39,999	91.9	89.8	93.6	**6.6**	5.1	8.5
$40,000 - 59,999	92.2	90.1	93.9	**6.9**	5.4	8.8
$60,000 - 99,999	93.0	91.2	94.4	**6.4**	5.1	8.1
$100,000+	90.5	87.5	92.8	**9.4**	7.1	12.4

LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for females are identified by colour as follows: above / below females.
Ordinary least squares regression was used to test for significance of socioeconomic gradient.
* Estimate has a relative standard error (RSE) between 25 and 50 per cent and should be interpreted with caution.

Body weight status

Being overweight or obese is a significant risk factor for a number of chronic diseases, including type 2 diabetes, certain types of cancer and cardiovascular disease. Table 9.11 shows the proportion of males and females who were overweight or obese, by total annual household income.

Table 9.11 Body weight status, by total annual household income and sex, 2010

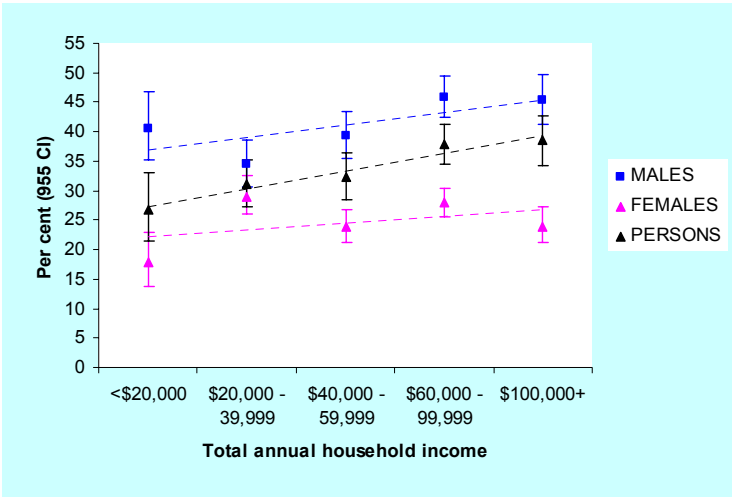
	Overweight			Obese		
MALES	%	95% CI		%	95% CI	
<$20,000	**40.6**	31.0	51.0	**16.8**	11.3	24.4
$20,000 - 39,999	**34.6**	29.4	40.2	**15.6**	11.2	21.4
$40,000 - 59,999	**39.3**	33.6	45.3	**15.8**	12.5	19.8
$60,000 - 99,999	**45.9**	40.9	50.9	**19.4**	15.8	23.7
$100,000+	**45.4**	40.3	50.7	**17.7**	14.0	22.3
FEMALES						
<$20,000	**17.9**	14.2	22.3	**19.7**	15.3	24.9
$20,000 - 39,999	**29.0**	24.3	34.1	**18.7**	14.9	23.2
$40,000 - 59,999	**23.8**	19.8	28.4	**21.5**	17.5	26.1
$60,000 - 99,999	**27.9**	24.1	32.1	**12.7**	10.4	15.5
$100,000+	**24.0**	20.6	27.8	**9.1**	6.7	12.1
PERSONS						
<$20,000	**26.8**	21.4	32.9	**19.5**	15.3	24.6
$20,000 - 39,999	**31.2**	27.4	35.3	**16.9**	13.9	20.4
$40,000 - 59,999	**32.3**	28.4	36.4	**18.5**	15.8	21.6
$60,000 - 99,999	**37.8**	34.4	41.3	**16.2**	13.9	18.7
$100,000+	**38.5**	34.4	42.8	**15.2**	12.4	18.6

Body weight status was based on the calculation of BMI from self-reported height and weight.
Overweight = BMI of 25-29.9 kg/m^2 ; obesity = BMI ≥30 kg/m^2.
LL/UL 95% CI = Lower/Upper Limit of 95% Confidence Interval.
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.
Data were age-standardised to the 2006 Victorian population.
Estimates that are (statistically) significantly different to the corresponding estimate for females are identified by colour as follows: above / below females.
Ordinary least squares regression was used to test for significance of socioeconomic gradient.

Figure 9.10 shows the prevalence of overweight (BMI = 25-29.9 kg/m^2), by total annual household income. There were significantly higher proportions of overweight males than females, for all levels of household income, except those reporting household incomes between $20,000-$39,999.

In persons, but not males or females separately, there was a significant reverse socioeconomic gradient, where the prevalence of overweight increased with increasing household income. When the data were analysed using the expanded dataset of possible household incomes, there was also a statistically significant reverse socioeconomic gradient in males, but not females.

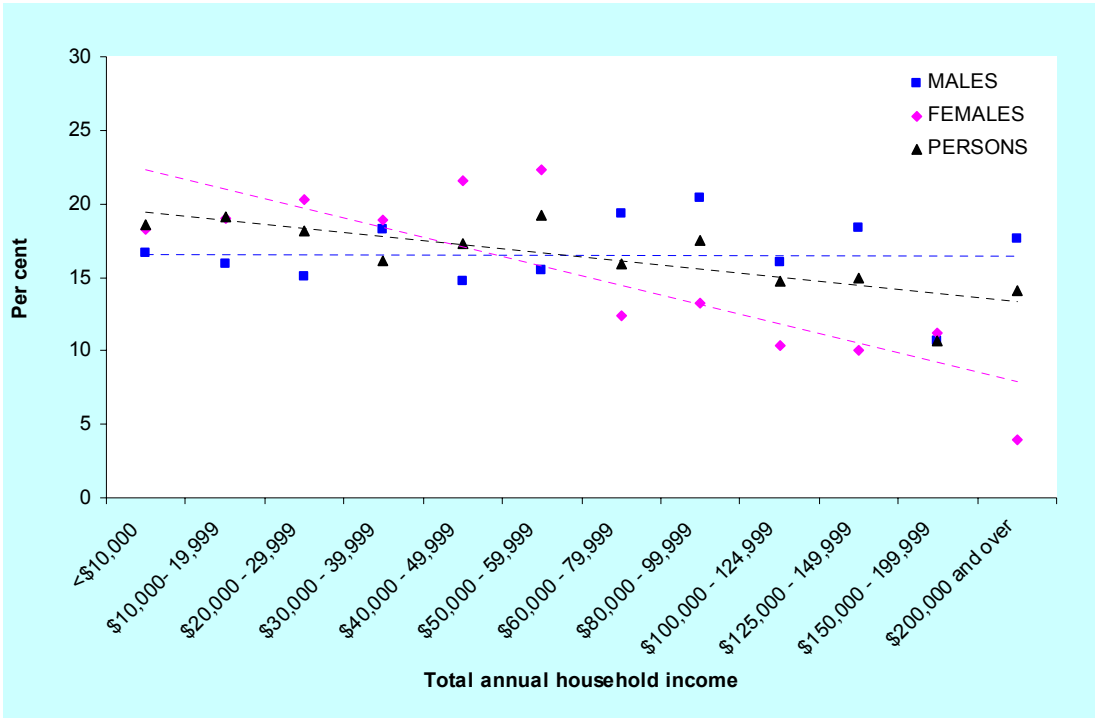
Figure 9.10 Prevalence of overweight, by total annual household income and sex, 2010



Estimates have been age standardised to the 2006 Victorian population
Ordinary least squares regression was used to test for significance of socioeconomic gradient

Respondents were asked to indicate which in a list of income categories they would place their total annual household income. This ranged in $10,000 increments from less than $10,000 to $200,000 or more. When the income categories were collapsed for ease of analysis as shown above, there were no socioeconomic gradients in the prevalence of obesity, by total annual household income, contrary to what was observed in previous VPHS surveys. However, when the data were analysed by the full range of household incomes, there were statistically significant typical socioeconomic gradients in females and persons, but not males, where the prevalence of obesity decreased with increasing income. This is consistent with previous findings. Figure 9.11 shows the prevalence of obesity (BMI ≥30 kg/m^2), by total annual household income and sex.

Figure 9.11 Prevalence of obesity, by total annual household income and sex, 2010



Estimates have been age standardised to the 2006 Victorian population.
Ordinary least squares regression was used to test for significance of socioeconomic gradient.

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Appendix A

Questionnaire items for the Victorian Population Health Survey 2010

Alcohol

Whether had an alcoholic drink of any kind in previous 12 months
Frequency of having an alcoholic drink of any kind
Amount of standard drinks consumed when drinking
Level of frequency of high risk drinking

Asthma

Asthma status (current and past)
Use of asthma action plan

Blood pressure

High blood pressure status
Management of high blood pressure
Age at diagnosis

Body weight status

Self-reported height and weight

Demographics

Age
Sex
Marital status
Household composition
Country of birth
Main language spoken at home
Country of birth of mother
Country of birth of father
Highest level of education
Employment status
Main field of occupation
Household income
Housing tenure
Whether has private health insurance
Indigenous status
Area of state (Department of Health region)
Number of adults aged 18 years or over in household

Chronic diseases

Arthritis
Heart disease
Stroke
Cancer
Osteoporosis

Diabetes

Diabetes status
Type of diabetes
Age first diagnosed with diabetes
Type of health care received in past year

Eye care

Change in vision in previous 12 months
Visits to eye healthcare professional
Selected eye diseases and conditions

Folate

Use of folate supplements
Reasons for use
Source of knowledge

Health checks

Whether had blood pressure check in previous two years
Whether had cholesterol check in previous two years
Whether had a test for elevated blood glucose level in previous two years
Examination for bowel cancer in previous two years

Mental Health

Psychological distress (Kessler 10 Psychological Distress Scale)
Whether sought help for mental health related problem
Type of mental health professional sought
Depression and/or anxiety

Nutrition

Daily vegetable consumption
Daily fruit consumption
Milk consumption
Water consumption
Food security

Physical activity

Frequency and amount of vigorous physical activity in past week
Physical activity at work

Self-reported health status

Smoking

Smoking status
Frequency of smoking
Smoking in home

Social capital measures

Social networks and support structures
Social and community participation
Civic involvement and empowerment
Trust in people and social institutions
Tolerance of diversity

Sun protection

Use of hat and sunglasses

health

State Government Victoria