

# 3. Self-Reported Health and Selected Health Conditions



Alpine Ararat Ballarat Banyule Bass Coast Baw Baw Bayside Benalla Boroondara Brimbank Buloke Campaspe Cardinia Casey Central Goldfields Colac-Otway Corangamite Darebin East Gippsland Frankston Gannawarra Glen Eira Glenelg Golden Plains Greater Bendigo Greater Dandenong Greater Geelong Greater Shepparton Hepburn Hindmarsh Hobsons Bay Horsham Hume Indigo Kingston Knox Latrobe Loddon Macedon Ranges Manningham Mansfield Maribyrnong Maroondah Melbourne Melton Mildura Mitchell Moira Monash Moonee Valley Moorabool Moreland Mornington Peninsula Mount Alexander Moyne Murrindindi Nillumbik Northern Grampians Port Phillip Pyrenees Queenscliffe South Gippsland Southern Grampians Stonnington Strathbogie Surf Coast Swan Hill Towong Wangaratta Warrnambool Wellington West Wimmera Whitehorse Whittlesea Wodonga Wyndham Yarra Yarra Ranges Yarriambiack Alpine Ararat Ballarat Banyule Bass Coast Baw Baw Bayside Benalla Boroondara Brimbank Buloke Campaspe Cardinia Casey Central Goldfields Colac-Otway Corangamite Darebin East Gippsland Frankston Gannawarra Glen Eira Glenelg Golden Plains Greater Bendigo Greater Dandenong Greater Geelong Greater Shepparton Hepburn Hindmarsh Hobsons Bay Horsham Hume Indigo Kingston Knox Latrobe Loddon Macedon Ranges Manningham Mansfield Maribyrnong Maroondah Melbourne Melton Mildura Mitchell Moira Monash Moonee Valley Moorabool Moreland Mornington Peninsula Mount Alexander Moyne Murrindindi Nillumbik Northern Grampians Port Phillip Pyrenees Queenscliffe South Gippsland Southern Grampians Stonnington Strathbogie Surf Coast Swan Hill Towong Wangaratta Warrnambool Wellington West Wimmera Whitehorse Whittlesea Wodonga Wyndham Yarra Yarra Ranges Yarriambiack Alpine Ararat Ballarat Banyule Bass Coast Baw Baw Bayside Benalla Boroondara Brimbank Buloke Campaspe Cardinia Casey Central Goldfields Colac-Otway Corangamite Darebin East Gippsland Frankston Gannawarra Glen Eira Glenelg Golden Plains Greater Bendigo Greater Dandenong Greater Geelong Greater Shepparton Hepburn Hindmarsh Hobsons Bay Horsham Hume Indigo Kingston Knox Latrobe Loddon Macedon Ranges Manningham Mansfield Maribyrnong Maroondah Melbourne Melton Mildura Mitchell Moira Monash Moonee Valley Moorabool Moreland Mornington Peninsula Mount Alexander Moyne Murrindindi Nillumbik Northern Grampians Port Phillip Pyrenees Queenscliffe South Gippsland Southern Grampians Stonnington Strathbogie Surf Coast Swan Hill Towong Wangaratta Warrnambool Wellington West Wimmera Whitehorse Whittlesea Wodonga Wyndham Yarra Yarra Ranges Yarriambiack Alpine Ararat Ballarat Banyule Bass Coast Baw Baw Bayside Benalla Boroondara Brimbank Buloke Campaspe Cardinia Casey Central Goldfields Colac-Otway Corangamite Darebin East Gippsland Frankston Gannawarra Glen Eira Glenelg Golden Plains Greater Bendigo Greater Dandenong Greater Geelong Greater Shepparton Hepburn Hindmarsh Hobsons Bay Horsham Hume Indigo Kingston Knox Latrobe Loddon Macedon Ranges Manningham Mansfield Maribyrnong Maroondah Melbourne Melton Mildura Mitchell Moira Monash Moonee Valley Moorabool Moreland Mornington Peninsula Mount Alexander Moyne Murrindindi Nillumbik Northern Grampians Port Phillip Pyrenees Queenscliffe South Gippsland Southern Grampians Stonnington Strathbogie Surf Coast Swan Hill Towong Wangaratta Warrnambool Wellington West Wimmera Whitehorse Whittlesea Wodonga Wyndham Yarra Yarra Ranges Yarriambiack

### 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.

#### Survey results

##### Self-reported health

- Approximately four out of five Victorians (81.5 per cent) reported their health status as being excellent, very good or good.
- The proportion of persons reporting excellent, very good, good, fair or poor health remained constant between 2005 and 2008.
- The proportion of males and females reporting excellent, very good, good, fair or poor health was similar between the rural and metropolitan areas of Victoria.
- The proportion of persons reporting fair or poor health in the North and West Metropolitan region was higher than the proportion for all Victorians, while the proportion of persons reporting excellent or very good health in the Southern Metropolitan region was higher than the proportion for all Victorians.

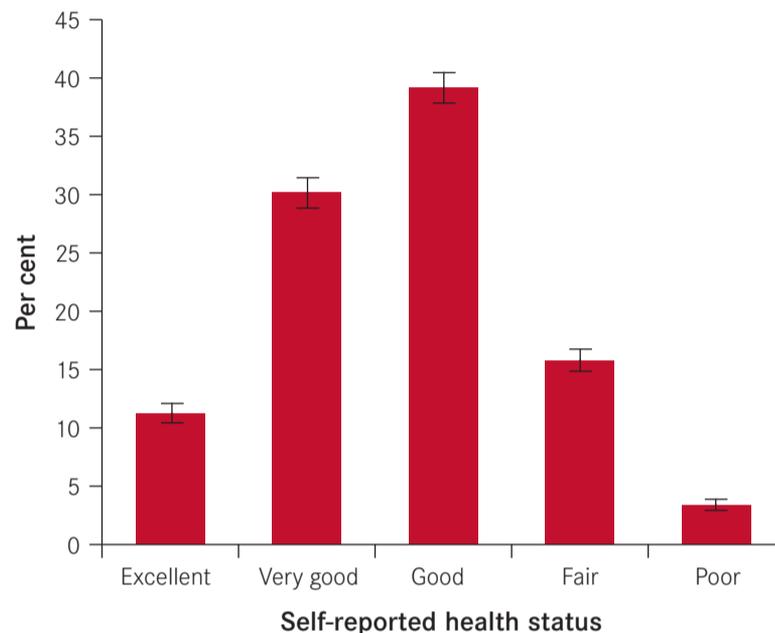
##### Selected health conditions

- The prevalence of having ever been told by a doctor that a person had heart disease was 6.7 per cent, stroke was 2.5 per cent, cancer was 6.6 per cent, osteoporosis was 4.8 per cent, osteoarthritis was 13.7 per cent and rheumatoid arthritis was 3.6 per cent.
- The prevalence of heart disease, stroke, cancer, osteoporosis and rheumatoid arthritis was similar for males and females between the rural and metropolitan areas of Victoria. However, males in rural areas had higher rates of osteoarthritis compared with their metropolitan counterparts.
- Persons in the LGAs of Central Goldfields, Maribyrnong, Pyrenees and Whittlesea had a higher prevalence of heart disease compared with all Victorians.
- Persons in the LGAs of Frankston and Hepburn had a higher prevalence of cancer compared with all Victorians.
- Females in the LGAs of Central Goldfields, Hume, Melbourne, Wellington and Yarra had a higher prevalence of osteoporosis compared with all Victorian females.

#### Self-reported health

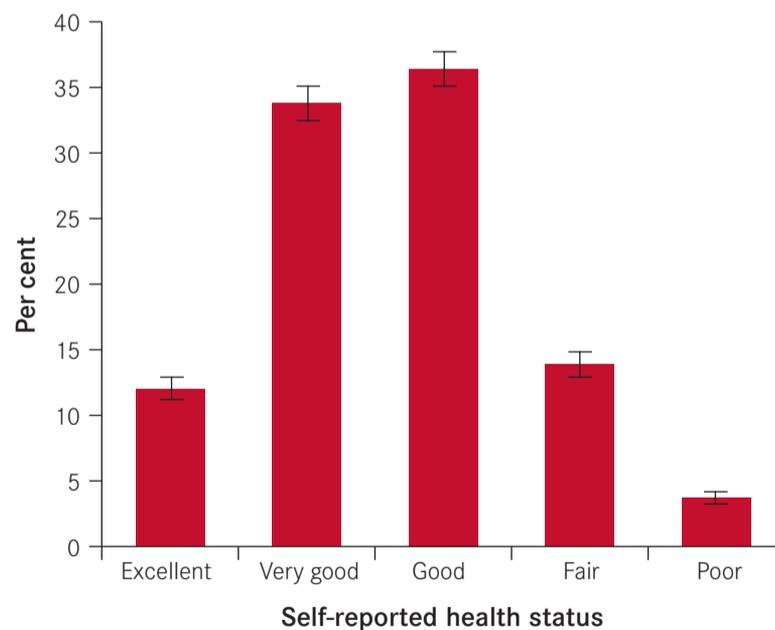
Approximately four out of five persons (81.5 per cent) aged 18 years and over reported their health status as being excellent, very good or good. Figures 3.1 and 3.2 show that similar proportions of males (80.6 per cent) and females (82.2 per cent) reported their health status as being excellent, very good or good.

Figure 3.1: Self-reported health, males, 2008



Data are age standardised to the 2006 Victorian population.

Figure 3.2: Self-reported health, females, 2008



Data are age standardised to the 2006 Victorian population.

More than one in five persons (22.9 per cent) aged 65 years and over, reported their health to be fair or poor (Table 3.1, figure 3.3 and figure 3.4). Among younger persons, a higher proportion of males (12.6 per cent) aged 18–24 years reported being in excellent health compared with females (6.9 per cent) in the same age group.

**Table 3.1: Self-reported health, by age group and sex, 2008**

Age group (years)	Excellent			Very good			Good			Fair			Poor		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
<b>Males</b>															
18–24 years	12.6	9.7	16.1	37.6	33.0	42.5	37.1	32.7	41.8	11.3	8.7	14.6	1.4*	0.8	2.4
25–34 years	11.0	8.8	13.6	32.3	28.6	36.3	39.3	35.5	43.3	14.5	11.9	17.4	2.9	1.9	4.6
35–44 years	11.3	9.5	13.5	29.8	27.2	32.5	40.1	37.2	43.1	16.3	14.1	18.6	2.4	1.6	3.5
45–54 years	10.4	8.8	12.2	27.1	24.7	29.6	41.2	38.5	44.0	17.5	15.4	19.9	3.7	2.9	4.8
55–64 years	10.8	9.3	12.6	27.8	25.5	30.3	40.5	37.9	43.1	15.8	13.9	17.8	4.8	3.8	6.1
65+	12.2	10.8	13.8	28.6	26.5	30.7	35.9	33.7	38.1	17.9	16.2	19.7	4.8	3.9	5.9
<b>Total</b>	<b>11.2</b>	<b>10.4</b>	<b>12.1</b>	<b>30.2</b>	<b>28.9</b>	<b>31.4</b>	<b>39.2</b>	<b>37.9</b>	<b>40.6</b>	<b>15.8</b>	<b>14.9</b>	<b>16.8</b>	<b>3.4</b>	<b>3.0</b>	<b>3.8</b>
<b>Females</b>															
18–24 years	6.9	4.9	9.6	36.2	32.0	40.6	41.4	37.2	45.9	13.5	10.7	16.9	1.9*	1.1	3.4
25–34 years	10.4	8.8	12.3	34.6	32.0	37.3	40.1	37.2	42.9	12.7	10.8	14.7	2.3	1.5	3.3
35–44 years	13.6	12.2	15.1	35.1	33.2	37.1	36.1	34.0	38.1	11.9	10.5	13.4	3.3	2.5	4.3
45–54 years	14.2	12.6	15.8	34.2	32.1	36.4	34.7	32.6	36.9	13.3	11.9	14.9	3.5	2.7	4.5
55–64 years	13.9	12.4	15.5	32.4	30.4	34.4	33.9	31.9	36.0	14.2	12.8	15.8	5.4	4.5	6.6
65+	12.7	11.5	14.0	31.0	29.3	32.8	32.5	30.7	34.3	17.5	16.1	19.1	5.6	4.7	6.6
<b>Total</b>	<b>12.0</b>	<b>11.4</b>	<b>12.7</b>	<b>33.8</b>	<b>32.8</b>	<b>34.9</b>	<b>36.4</b>	<b>35.4</b>	<b>37.5</b>	<b>13.9</b>	<b>13.1</b>	<b>14.6</b>	<b>3.7</b>	<b>3.3</b>	<b>4.1</b>
<b>Persons</b>															
18–24 years	9.8	8.0	12.0	36.9	33.8	40.2	39.2	36.1	42.5	12.4	10.4	14.7	1.6	1.1	2.5
25–34 years	10.7	9.3	12.3	33.5	31.2	35.8	39.7	37.3	42.1	13.6	12.0	15.3	2.6	1.9	3.5
35–44 years	12.5	11.3	13.7	32.5	30.8	34.2	38.1	36.3	39.9	14.0	12.8	15.4	2.8	2.3	3.6
45–54 years	12.3	11.2	13.5	30.7	29.1	32.3	37.9	36.2	39.7	15.4	14.1	16.8	3.6	3.0	4.3
55–64 years	12.4	11.3	13.5	30.1	28.6	31.7	37.2	35.5	38.8	15.0	13.8	16.3	5.1	4.4	5.9
65+	12.5	11.5	13.5	29.9	28.6	31.3	34.0	32.6	35.4	17.7	16.6	18.9	5.2	4.6	6.0
<b>Total</b>	<b>11.7</b>	<b>11.1</b>	<b>12.2</b>	<b>32.0</b>	<b>31.2</b>	<b>32.9</b>	<b>37.8</b>	<b>36.9</b>	<b>38.6</b>	<b>14.8</b>	<b>14.2</b>	<b>15.4</b>	<b>3.5</b>	<b>3.2</b>	<b>3.8</b>

95% CI = 95 per cent confidence interval.

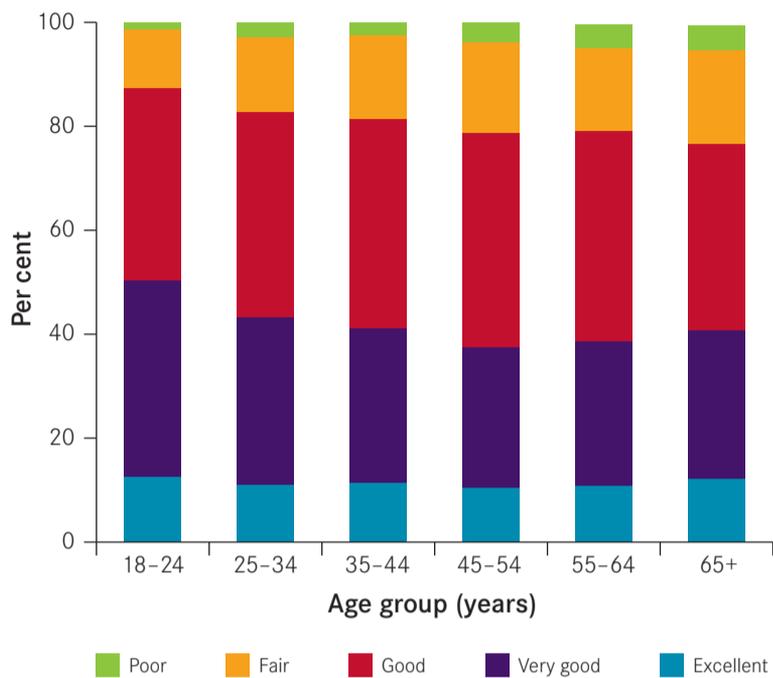
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.

Data are crude estimates, except for 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 Victoria / below Victoria.

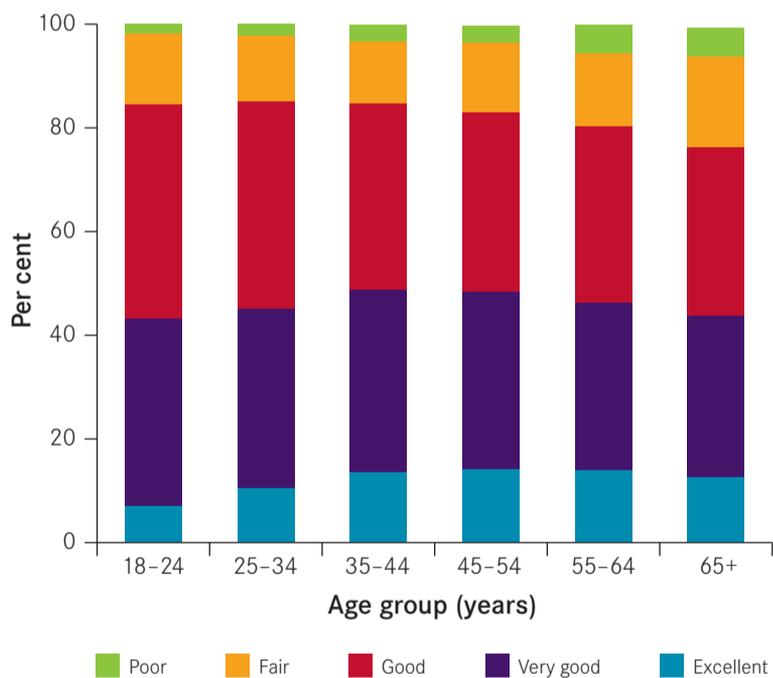
\* Estimate has a relative standard error of between 25 and 50 per cent and should be interpreted with caution.

Figure 3.3: Self-reported health, by age group, males, 2008



Data are crude estimates, they have not been age standardised.

Figure 3.4: Self-reported health, by age group, females, 2008



Data are crude estimates, they have not been age standardised.

Table 3.2 shows self-reported health status by sex for the period 2005–2008. The pattern for self-reported health was similar between males and females and there were no significant changes in the proportion of persons, male or female, reporting excellent, very good, good, fair or poor health between 2005 and 2008.

Table 3.2: Self-reported health, by sex, 2005–2008

	2005	2006	2007	2008
	Per cent			
<b>Males</b>				
Excellent	11.2	12.5	11.1	11.2
Very good	33.1	34.5	32.6	30.2
Good	37.3	36.4	40.2	39.2
Fair	14.8	13.2	12.6	15.8
Poor	3.6	3.1	3.3	3.4
<b>Females</b>				
Excellent	11.5	12.7	13.5	12.0
Very good	34.4	34.6	33.8	33.8
Good	36.9	37.8	36.0	36.4
Fair	13.7	10.9	13.4	13.9
Poor	3.3	3.7	3.1	3.7
<b>Persons</b>				
Excellent	11.4	12.6	12.3	11.7
Very good	33.8	34.6	33.2	32.0
Good	37.0	37.1	38.1	37.8
Fair	14.2	12.1	13.0	14.8
Poor	3.4	3.4	3.2	3.5

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

Data are age standardised to the 2006 Victorian population.

Ordinary least squares linear regression was used to test for trends over time.

### Self-reported health by region and LGA

Table 3.3 shows self-reported health status by sex and Department of Health region. The data show that self-reported health was similar between rural and metropolitan Victoria, for both males and females.

Among specific Department of Health regions, persons from the North and West Metropolitan region had a higher rate of fair/poor health (20.4 per cent) and a lower rate of excellent/very good health (39.3 per cent), compared with the rates for Victoria (18.3 per cent and 43.7 per cent, respectively). In contrast, persons from the Southern Metropolitan region had a higher rate of excellent/very good health (46.7 per cent) and a lower rate of good health (34.7 per cent) compared with the rates for Victoria (43.7 per cent and 37.8 per cent, respectively).

Table 3.3: Self-reported health, by sex and Department of Health region, 2008

Region	Excellent / Very Good			Good			Fair / Poor		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
<b>Males</b>									
Barwon-South Western	45.6	39.3	52.0	40.0	34.0	46.4	14.1	11.0	17.9
Eastern Metropolitan	44.3	40.8	47.8	38.7	35.3	42.2	16.8	14.4	19.5
Gippsland	38.7	34.5	43.0	41.4	37.1	45.9	19.9	16.8	23.4
Grampians	39.4	35.2	43.8	39.4	35.4	43.6	21.1	17.7	24.9
Hume	40.8	37.3	44.4	40.0	36.5	43.6	19.2	16.5	22.2
Loddon Mallee	38.8	34.7	43.0	43.1	38.9	47.4	17.8	15.3	20.6
North and West Metropolitan	36.5	34.2	38.8	43.1	40.7	45.5	20.4	18.6	22.3
Southern Metropolitan	44.8	41.9	47.7	34.0	31.2	36.9	20.8	18.5	23.3
<b>Metropolitan</b>	41.3	39.7	42.9	38.9	37.3	40.5	19.5	18.3	20.8
<b>Rural</b>	41.0	38.7	43.4	40.8	38.5	43.1	18.1	16.6	19.6
<b>Total</b>	41.4	40.0	42.7	39.2	37.9	40.6	19.2	18.2	20.2
<b>Females</b>									
Barwon-South Western	46.9	42.5	51.4	34.9	30.6	39.6	18.1	14.4	22.5
Eastern Metropolitan	47.4	44.6	50.2	36.6	33.9	39.4	15.8	14.0	17.9
Gippsland	44.7	41.6	47.8	37.4	34.2	40.7	17.8	15.2	20.7
Grampians	47.1	43.3	50.9	35.7	32.2	39.5	16.9	14.6	19.4
Hume	47.3	44.6	50.1	36.2	33.6	38.9	16.4	14.6	18.4
Loddon Mallee	42.9	39.8	46.0	37.7	34.6	40.9	19.3	17.1	21.8
North and West Metropolitan	42.2	40.4	44.1	37.2	35.4	39.0	20.3	18.8	21.8
Southern Metropolitan	48.4	46.0	50.7	35.5	33.3	37.8	15.9	14.2	17.7
<b>Metropolitan</b>	45.8	44.5	47.1	36.5	35.3	37.8	17.5	16.5	18.5
<b>Rural</b>	45.6	43.9	47.3	36.4	34.7	38.2	17.9	16.5	19.3
<b>Total</b>	45.9	44.8	46.9	36.4	35.4	37.5	17.5	16.7	18.3
<b>Persons</b>									
Barwon-South Western	46.2	42.2	50.2	37.4	33.6	41.4	16.2	13.6	19.2
Eastern Metropolitan	46.0	43.7	48.2	37.6	35.5	39.9	16.2	14.7	17.9
Gippsland	41.7	39.0	44.4	39.5	36.8	42.3	18.7	16.7	21.0
Grampians	43.4	40.6	46.3	37.5	34.8	40.3	18.8	16.7	21.2
Hume	44.1	41.8	46.4	38.1	35.9	40.4	17.8	16.1	19.6
Loddon Mallee	40.9	38.3	43.6	40.3	37.7	43.0	18.6	16.9	20.4
North and West Metropolitan	39.3	37.9	40.8	40.0	38.6	41.5	20.4	19.3	21.6
Southern Metropolitan	46.7	44.8	48.6	34.7	32.9	36.6	18.2	16.8	19.8
<b>Metropolitan</b>	43.6	42.6	44.7	37.6	36.6	38.7	18.5	17.7	19.3
<b>Rural</b>	43.3	41.5	44.8	38.6	37.1	40.0	17.9	16.9	19.0
<b>Total</b>	43.7	42.8	44.5	37.8	36.9	38.6	18.3	17.7	19.0

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.

95% CI = 95 per cent 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 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.

Table 3.4: Self-reported health, by LGA, males, 2008

LGA	Excellent / Very good			Good			Fair / Poor		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Alpine (S)	38.8	30.6	47.7	47.8	38.9	56.8	13.4	8.7	20.1
Ararat (RC)	31.0	25.1	37.6	44.9	35.4	54.8	24.2	16.6	33.8
Ballarat (C)	41.5	33.6	49.8	35.8	28.4	43.9	22.8	16.5	30.6
Banyule (C)	40.7	32.1	49.9	44.0	35.3	53.1	15.3	10.0	22.7
Bass Coast (S)	34.6	25.4	45.0	46.8	37.7	56.1	18.7	13.2	25.8
Baw Baw (S)	46.0	36.5	55.8	36.8	27.5	47.2	17.3	11.7	24.7
Bayside (C)	61.9	52.4	70.5	25.1	18.1	33.7	13.1	8.4	19.9
Benalla (RC)	37.4	28.2	47.7	40.2	31.1	50.2	22.4	14.9	32.1
Boroondara (C)	53.4	44.8	61.9	31.4	23.8	40.1	15.2	9.9	22.7
Brimbank (C)	29.3	22.7	37.0	48.0	40.3	55.7	22.4	16.3	30.0
Buloke (S)	32.6	26.3	39.6	52.6	45.6	59.5	14.8	9.7	21.8
Campaspe (S)	43.1	34.0	52.7	38.1	29.3	47.7	17.8	11.8	26.0
Cardinia (S)	42.2	33.2	51.6	39.8	31.9	48.4	17.2	11.7	24.6
Casey (C)	35.9	28.7	43.9	38.4	30.9	46.5	25.7	19.2	33.5
Central Goldfields (S)	30.2	21.4	40.6	41.6	30.8	53.2	28.2	20.2	37.8
Colac-Otway (S)	31.7	23.2	41.5	54.5	44.8	63.9	13.8	9.0	20.7
Corangamite (S)	43.7	36.2	51.4	35.7	29.0	43.0	20.6	14.8	28.0
Darebin (C)	37.6	30.6	45.1	35.3	28.0	43.4	27.1	20.7	34.7
East Gippsland (S)	41.4	32.4	51.0	38.0	29.9	46.9	20.4	14.8	27.4
Frankston (C)	39.0	30.4	48.3	32.4	25.4	40.4	27.9	20.5	36.7
Gannawarra (S)	46.3	36.8	56.0	36.6	28.0	46.1	17.2	11.9	24.1
Glen Eira (C)	43.9	36.1	52.1	36.6	28.6	45.4	18.3	12.6	25.9
Glenelg (S)	32.2	24.4	41.2	48.4	40.1	56.8	19.2	13.2	27.2
Golden Plains (S)	39.8	32.0	48.1	43.0	34.9	51.5	17.2	11.9	24.2
Greater Bendigo (C)	36.2	27.7	45.6	45.6	36.5	55.0	18.2	13.1	24.8
Greater Dandenong (C)	32.2	25.0	40.2	39.9	32.1	48.3	28.0	21.2	35.9
Greater Geelong (C)	48.2	38.2	58.3	39.8	30.4	50.1	11.8	7.3	18.5
Greater Shepparton (C)	41.4	32.3	51.0	39.1	30.2	48.8	19.5	14.0	26.6
Hepburn (S)	49.4	40.0	58.8	33.5	26.2	41.7	17.1	11.3	25.1
Hindmarsh (S)	37.9	29.1	47.6	47.3	38.2	56.7	14.6	10.1	20.6
Hobsons Bay (C)	39.5	31.5	48.1	39.3	31.2	48.0	21.2	15.1	28.9
Horsham (RC)	39.9	32.4	47.9	44.1	36.6	51.9	15.8	10.4	23.5
Hume (C)	32.5	25.5	40.5	49.1	41.0	57.2	18.4	13.0	25.3
Indigo (S)	50.0	40.6	59.3	36.7	28.5	45.7	13.3	8.4	20.6
Kingston (C)	55.8	47.8	63.5	26.8	20.3	34.5	17.1	12.0	23.8
Knox (C)	41.8	33.3	50.7	33.3	26.1	41.3	24.2	17.5	32.5
Latrobe (C)	35.6	27.8	44.1	44.0	35.4	52.9	20.4	15.0	27.2
Loddon (S)	33.5	24.8	43.5	41.4	32.9	50.4	25.1	17.3	35.0
Macedon Ranges (S)	35.7	28.3	44.0	47.8	38.6	57.2	16.5	10.4	25.1
Manningham (C)	45.4	36.5	54.5	44.9	35.9	54.2	9.8	6.0	15.5

Metropolitan and rural LGAs are identified by colour as follows: metropolitan / rural.

95% CI = 95 per cent 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 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.

Table 3.4: Self-reported health, by LGA, males, 2008 (continued)

LGA	Excellent / Very good			Good			Fair / Poor		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Mansfield (S)	48.6	39.6	57.8	32.2	24.1	41.5	17.7	12.7	24.1
Maribyrnong (C)	35.5	28.2	43.5	44.9	37.3	52.8	19.6	14.9	25.3
Maroondah (C)	48.1	40.3	56.1	30.5	23.1	39.0	20.2	14.2	27.9
Melbourne (C)	39.8	33.5	46.5	39.1	32.6	46.0	21.1	16.0	27.4
Melton (S)	28.6	21.0	37.8	45.5	36.9	54.4	25.8	19.2	33.8
Mildura (RC)	37.4	28.8	46.9	42.9	33.9	52.3	18.9	13.0	26.6
Mitchell (S)	41.9	34.3	50.0	42.5	34.5	51.0	15.6	11.0	21.5
Moira (S)	40.1	31.9	49.0	39.3	28.9	50.8	20.6	12.8	31.3
Monash (C)	41.2	31.9	51.3	39.5	30.5	49.2	19.3	12.4	28.7
Moonee Valley (C)	46.3	37.9	54.9	34.4	26.5	43.3	19.3	12.8	28.2
Moorabool (S)	31.4	24.1	39.8	46.4	37.9	55.1	22.2	15.6	30.6
Moreland (C)	40.3	33.3	47.8	39.6	32.7	47.1	20.0	14.7	26.6
Mornington Peninsula (S)	43.7	35.9	51.9	33.9	26.0	42.8	22.4	16.2	30.1
Mount Alexander (S)	44.6	36.6	53.0	27.5	20.5	35.7	27.7	22.4	33.7
Moyne (S)	37.2	28.5	46.8	52.2	42.6	61.6	10.6	7.0	15.8
Murrindindi (S)	41.6	32.0	52.0	40.3	30.6	50.9	18.1	10.2	30.0
Nillumbik (S)	44.1	36.7	51.8	37.4	29.6	45.8	17.4	11.6	25.2
Northern Grampians (S)	44.3	34.5	54.6	37.1	28.0	47.1	18.4	12.7	26.0
Port Phillip (C)	53.4	46.0	60.6	31.5	24.8	38.9	13.8	9.3	20.1
Pyrenees (S)	30.9	24.0	38.7	42.1	31.6	53.4	27.1	18.5	37.8
Queenscliffe (B)	67.0	57.9	74.9	28.1	20.5	37.1	5.0	2.6	9.3
Southern Grampians (S)	39.4	31.1	48.4	42.8	34.7	51.2	17.8	12.5	24.7
South Gippsland (S)	44.0	35.1	53.4	34.0	26.2	42.7	22.0	16.6	28.7
Stonnington (C)	60.1	51.1	68.4	26.2	18.9	35.0	13.8	9.1	20.2
Strathbogie (S)	39.0	30.2	48.6	47.9	39.6	56.3	13.0	8.4	19.5
Surf Coast (S)	59.0	49.3	68.0	20.3	15.2	26.6	19.9	12.6	29.9
Swan Hill (RC)	38.7	30.1	48.0	45.1	35.9	54.6	16.3	11.2	23.1
Towong (S)	46.9	39.3	54.6	43.1	35.3	51.3	10.0	6.6	15.0
Wangaratta (RC)	41.8	32.8	51.5	29.9	21.7	39.6	28.3	20.0	38.5
Warrnambool (C)	41.2	33.8	49.0	38.4	32.0	45.1	19.0	13.5	26.0
Wellington (S)	32.4	25.3	40.4	44.6	36.1	53.4	23.1	16.0	32.1
West Wimmera (S)	37.3	29.5	45.9	45.8	37.3	54.5	16.9	12.0	23.2
Whitehorse (C)	45.4	37.1	53.8	42.9	34.8	51.5	11.3	7.5	16.8
Whittlesea (C)	27.9	21.2	35.8	46.4	38.1	55.0	25.5	19.2	33.0
Wodonga (RC)	31.5	25.3	38.4	47.9	40.8	55.0	20.7	14.9	27.9
Wyndham (C)	34.7	27.9	42.2	46.2	38.6	53.9	19.1	13.9	25.7
Yarra (C)	39.8	32.9	47.1	39.5	32.4	47.1	20.5	15.3	26.9
Yarra Ranges (S)	39.2	31.8	47.1	44.0	36.2	52.1	16.9	12.1	23.0
Yarriambiack (S)	36.1	28.3	44.7	41.3	33.3	49.8	21.4	14.9	29.8
<b>Total</b>	<b>41.4</b>	<b>40.0</b>	<b>42.7</b>	<b>39.2</b>	<b>37.9</b>	<b>40.6</b>	<b>19.2</b>	<b>18.2</b>	<b>20.2</b>

Table 3.5: Self-reported health, by LGA, females, 2008

LGA	Excellent / Very good			Good			Fair / Poor		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Alpine (S)	48.1	41.1	55.2	26.5	20.3	33.8	25.4	21.7	29.5
Ararat (RC)	43.2	35.4	51.3	37.7	31.1	44.8	17.6	12.0	25.2
Ballarat (C)	46.7	39.9	53.6	35.6	29.2	42.6	17.4	13.4	22.3
Banyule (C)	50.1	42.5	57.7	32.3	25.8	39.6	17.5	12.6	23.9
Bass Coast (S)	50.2	42.2	58.1	36.1	28.7	44.3	13.4	9.7	18.4
Baw Baw (S)	52.2	44.9	59.4	35.5	28.9	42.8	12.3	8.5	17.3
Bayside (C)	60.9	53.0	68.2	26.8	21.3	33.2	12.3	7.6	19.3
Benalla (RC)	42.5	35.8	49.5	37.5	30.4	45.2	20.0	15.0	26.0
Boroondara (C)	60.3	53.1	67.0	29.5	23.4	36.6	10.2	6.7	15.3
Brimbank (C)	26.3	21.5	31.7	45.5	40.1	51.1	27.8	23.0	33.1
Buloke (S)	47.6	38.6	56.8	37.5	28.9	47.0	14.9	10.5	20.7
Campaspe (S)	48.0	40.8	55.2	31.5	25.4	38.2	20.3	14.5	27.6
Cardinia (S)	44.6	37.6	51.9	40.1	33.2	47.4	14.7	10.4	20.3
Casey (C)	42.9	36.7	49.3	37.6	31.7	44.0	19.1	14.6	24.6
Central Goldfields (S)	34.8	28.4	41.8	42.0	33.4	51.1	22.9	16.2	31.4
Colac-Otway (S)	50.2	43.0	57.3	32.9	26.5	40.0	16.6	11.6	23.2
Corangamite (S)	49.6	41.5	57.6	33.0	25.8	41.1	17.0	12.7	22.5
Darebin (C)	42.1	35.9	48.4	40.3	34.1	46.8	17.1	13.0	22.0
East Gippsland (S)	48.5	41.7	55.3	29.4	21.8	38.4	22.1	15.1	31.2
Frankston (C)	45.1	38.4	52.0	37.2	30.7	44.3	17.6	12.9	23.7
Gannawarra (S)	42.5	36.1	49.3	36.9	29.6	44.9	20.0	14.8	26.6
Glen Eira (C)	53.5	46.4	60.4	30.2	24.2	37.0	16.1	11.6	22.0
Glenelg (S)	45.6	38.6	52.7	38.2	31.6	45.2	16.3	11.8	22.1
Golden Plains (S)	53.3	45.9	60.6	34.4	28.8	40.5	11.8	7.3	18.5
Greater Bendigo (C)	43.6	37.2	50.3	37.2	30.9	43.9	19.2	14.8	24.7
Greater Dandenong (C)	40.7	34.1	47.5	36.0	29.7	42.8	22.3	17.3	28.2
Greater Geelong (C)	45.4	38.7	52.4	34.1	27.3	41.5	20.5	14.6	28.0
Greater Shepparton (C)	41.6	35.1	48.5	43.8	36.7	51.2	14.6	10.1	20.7
Hepburn (S)	50.1	42.4	57.8	31.4	24.4	39.3	18.3	13.6	24.1
Hindmarsh (S)	36.7	30.9	42.8	45.1	39.1	51.2	18.1	13.8	23.3
Hobsons Bay (C)	38.5	32.8	44.6	40.5	33.1	48.3	20.6	14.6	28.3
Horsham (RC)	41.6	35.5	48.0	37.9	31.5	44.8	20.4	15.2	26.7
Hume (C)	39.1	32.9	45.8	35.3	29.5	41.6	25.1	19.9	31.2
Indigo (S)	53.1	46.3	59.8	29.2	22.7	36.6	17.8	11.3	26.8
Kingston (C)	48.3	40.4	56.4	36.6	29.3	44.6	15.1	10.5	21.3
Knox (C)	43.6	37.3	50.2	35.2	28.7	42.3	20.2	14.9	26.7
Latrobe (C)	37.5	31.9	43.4	38.5	32.2	45.2	23.9	18.6	30.1
Loddon (S)	47.3	39.3	55.4	34.6	27.1	43.0	18.1	13.2	24.3
Macedon Ranges (S)	44.7	36.1	53.7	37.7	29.3	46.9	17.7	12.6	24.1
Manningham (C)	38.7	32.2	45.6	42.9	35.8	50.3	18.4	13.2	25.1

Metropolitan and rural LGAs are identified by colour as follows: metropolitan / rural.

95% CI = 95 per cent 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 age standardised to the 2006 Victorian population.

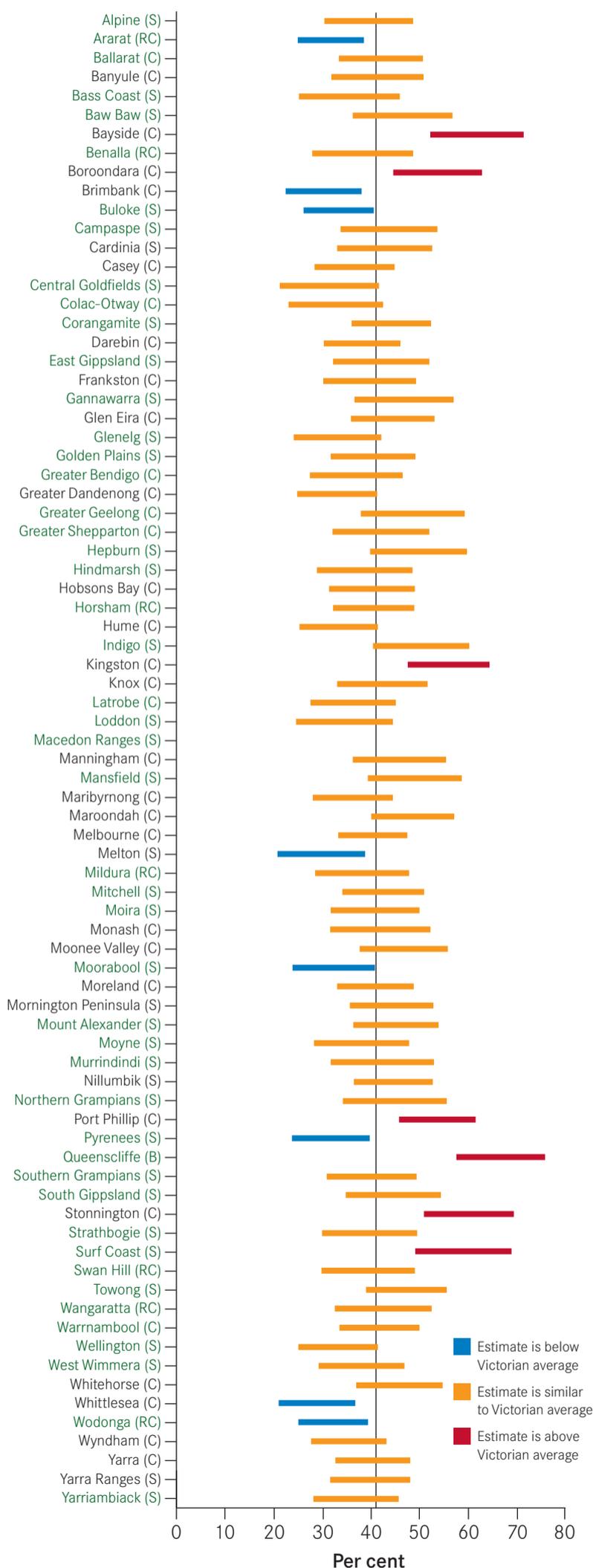
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above Victoria / below Victoria.

Table 3.5: Self-reported health, by LGA, females, 2008 (continued)

LGA	Excellent / Very good			Good			Fair / Poor		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Mansfield (S)	50.0	42.8	57.2	37.2	30.3	44.6	12.0	7.5	18.6
Maribyrnong (C)	44.9	39.0	51.0	37.9	31.8	44.5	17.2	12.9	22.5
Maroondah (C)	59.8	52.4	66.7	28.7	22.5	35.8	11.6	8.4	15.8
Melbourne (C)	55.8	49.1	62.3	31.0	25.0	37.6	13.2	9.7	17.8
Melton (S)	38.2	32.5	44.2	41.7	36.2	47.3	20.1	15.9	25.2
Mildura (RC)	37.6	31.2	44.5	39.2	32.8	46.0	23.1	17.7	29.6
Mitchell (S)	40.6	33.4	48.3	38.5	31.5	45.9	20.9	15.5	27.6
Moira (S)	51.6	45.8	57.4	33.2	27.6	39.3	15.2	11.6	19.7
Monash (C)	43.9	37.5	50.5	38.3	31.8	45.1	17.9	13.5	23.3
Moonee Valley (C)	46.7	40.4	53.2	33.6	27.5	40.2	19.6	15.0	25.1
Moorabool (S)	48.9	41.7	56.1	36.8	30.3	43.9	13.8	10.4	18.3
Moreland (C)	46.1	40.1	52.3	29.8	24.3	35.9	23.9	19.0	29.5
Mornington Peninsula (S)	47.2	40.2	54.3	41.4	34.5	48.6	11.1	7.3	16.5
Mount Alexander (S)	47.8	39.6	56.1	39.9	31.9	48.5	11.7	7.8	17.1
Moyne (S)	48.9	40.5	57.3	38.4	30.3	47.1	12.6	9.3	16.9
Murrindindi (S)	51.2	46.0	56.2	31.7	26.1	37.9	16.7	12.2	22.4
Nillumbik (S)	52.4	44.1	60.6	32.4	24.9	40.8	14.6	10.1	20.6
Northern Grampians (S)	45.4	38.8	52.3	31.6	25.4	38.5	23.0	18.1	28.7
Port Phillip (C)	55.1	48.4	61.6	30.6	24.9	36.9	14.3	10.4	19.4
Pyrenees (S)	38.9	31.8	46.6	37.3	30.3	45.0	23.7	17.1	31.9
Queenscliffe (B)	62.3	55.0	69.1	27.5	21.4	34.5	10.1	6.2	15.8
Southern Grampians (S)	50.3	42.7	57.8	35.4	28.1	43.4	14.4	10.1	20.1
South Gippsland (S)	55.0	48.5	61.5	32.0	26.3	38.2	13.0	9.0	18.4
Stonnington (C)	54.2	48.0	60.2	33.6	27.8	39.9	12.2	8.8	16.7
Strathbogie (S)	54.8	45.8	63.5	30.7	23.0	39.7	14.3	9.8	20.5
Surf Coast (S)	58.4	51.1	65.4	29.3	23.2	36.2	12.0	8.0	17.6
Swan Hill (RC)	36.3	30.5	42.4	37.4	31.6	43.5	26.0	22.0	30.4
Towong (S)	45.4	38.3	52.7	40.2	33.6	47.3	13.9	10.0	18.9
Wangaratta (RC)	53.3	45.4	61.0	33.3	26.3	41.2	13.4	9.6	18.4
Warrnambool (C)	49.5	42.1	57.0	38.3	31.3	45.9	12.1	8.8	16.5
Wellington (S)	44.1	37.3	51.1	43.9	37.1	50.9	11.6	8.3	16.0
West Wimmera (S)	43.4	37.0	49.9	38.7	31.6	46.3	17.5	12.3	24.3
Whitehorse (C)	37.2	31.6	43.3	48.7	42.6	54.9	13.9	10.3	18.6
Whittlesea (C)	42.1	36.2	48.2	40.7	35.0	46.6	17.2	13.4	21.9
Wodonga (RC)	46.0	39.6	52.6	36.5	30.6	42.8	17.5	13.0	23.2
Wyndham (C)	44.8	38.9	50.9	33.1	27.7	39.0	21.0	16.3	26.5
Yarra (C)	41.1	34.7	47.8	43.0	36.8	49.4	15.7	11.7	20.9
Yarra Ranges (S)	44.5	38.0	51.1	34.5	28.8	40.6	21.1	15.9	27.5
Yarriambiack (S)	48.5	40.8	56.3	34.2	27.3	41.8	16.9	12.1	23.1
<b>Total</b>	<b>45.9</b>	<b>44.8</b>	<b>46.9</b>	<b>36.4</b>	<b>35.4</b>	<b>37.5</b>	<b>17.5</b>	<b>16.7</b>	<b>18.3</b>

Table 3.4 and figure 3.5 show the proportion of males who reported being in excellent or very good health, by LGA. The highest proportion of males who reported being in excellent or very good health was in Queenscliffe (67.0 per cent) and the lowest proportion was in Whittlesea (27.9 per cent). A higher proportion of males reported being in excellent or very good health in seven LGAs: Queenscliffe (67.0 per cent), Bayside (61.9 per cent), Stonnington (60.1 per cent), Surf Coast (59.0 per cent), Kingston (55.8 per cent), Boroondara (53.4 per cent) and Port Phillip (53.4 per cent), compared with all Victorian males (41.4 per cent).

Figure 3.5: Excellent or very good self-reported health, by LGA, males, 2008



Metropolitan and rural LGAs are identified by colour as follows: metropolitan / rural.

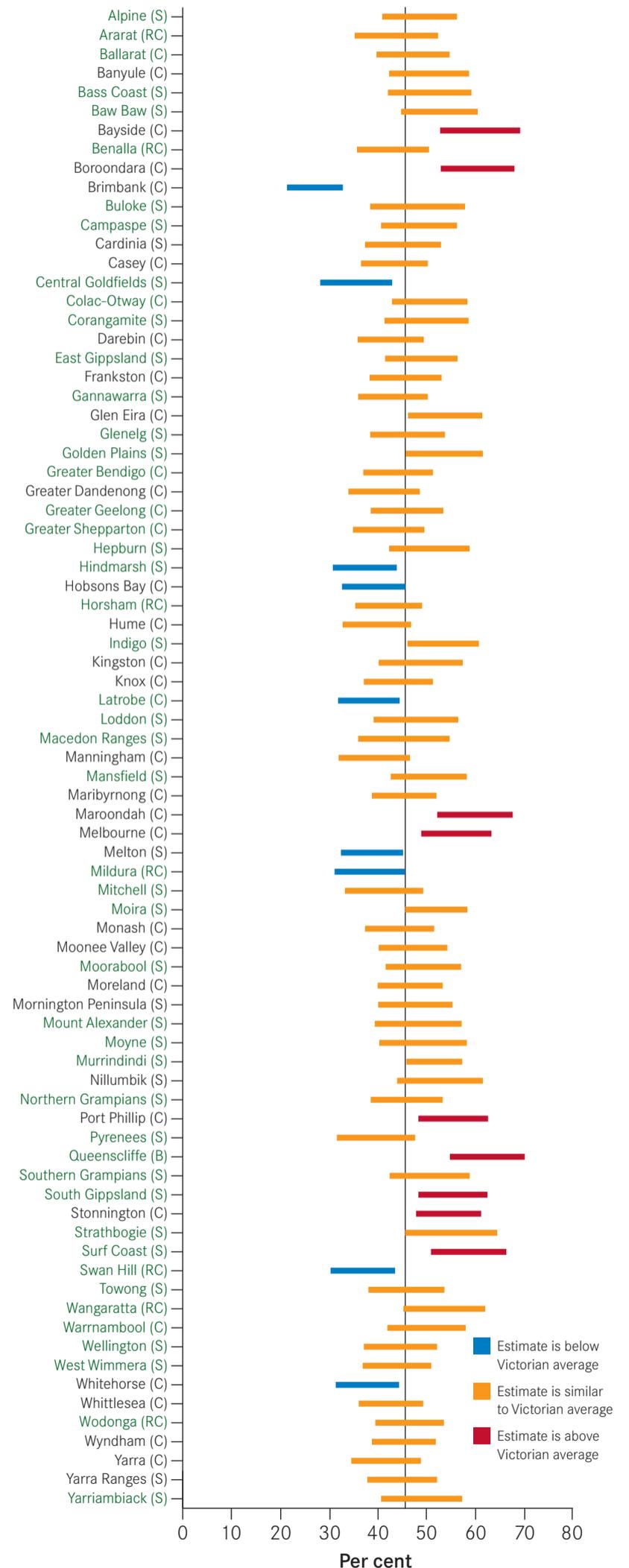
LGA = local government area.

Data are age standardised to the 2006 Victorian population.

The line on the graph is the Victorian estimate, it does not show the 95% CI. See the relevant table for the 95% CI for Victoria (Total).

Table 3.5 and figure 3.6 show the proportion of females who reported being in excellent or very good health, by LGA. The highest proportion of females who reported being in excellent or very good health was in Queenscliffe (62.3 per cent) and the lowest proportion was in Brimbank (26.3 per cent). A higher proportion of females reported being in excellent or very good health in nine LGAs: Queenscliffe (62.3 per cent), Bayside (60.9 per cent), Boroondara (60.3 per cent), Maroondah (59.8 per cent), Surf Coast (58.4 per cent), Melbourne (55.8 per cent), Port Phillip (55.1 per cent), South Gippsland (55.0 per cent) and Stonnington (54.2 per cent), compared with all Victorian females (45.9 per cent).

Figure 3.6: Excellent or very good self-reported health, by LGA, females, 2008



Metropolitan and rural LGAs are identified by colour as follows: metropolitan / rural.

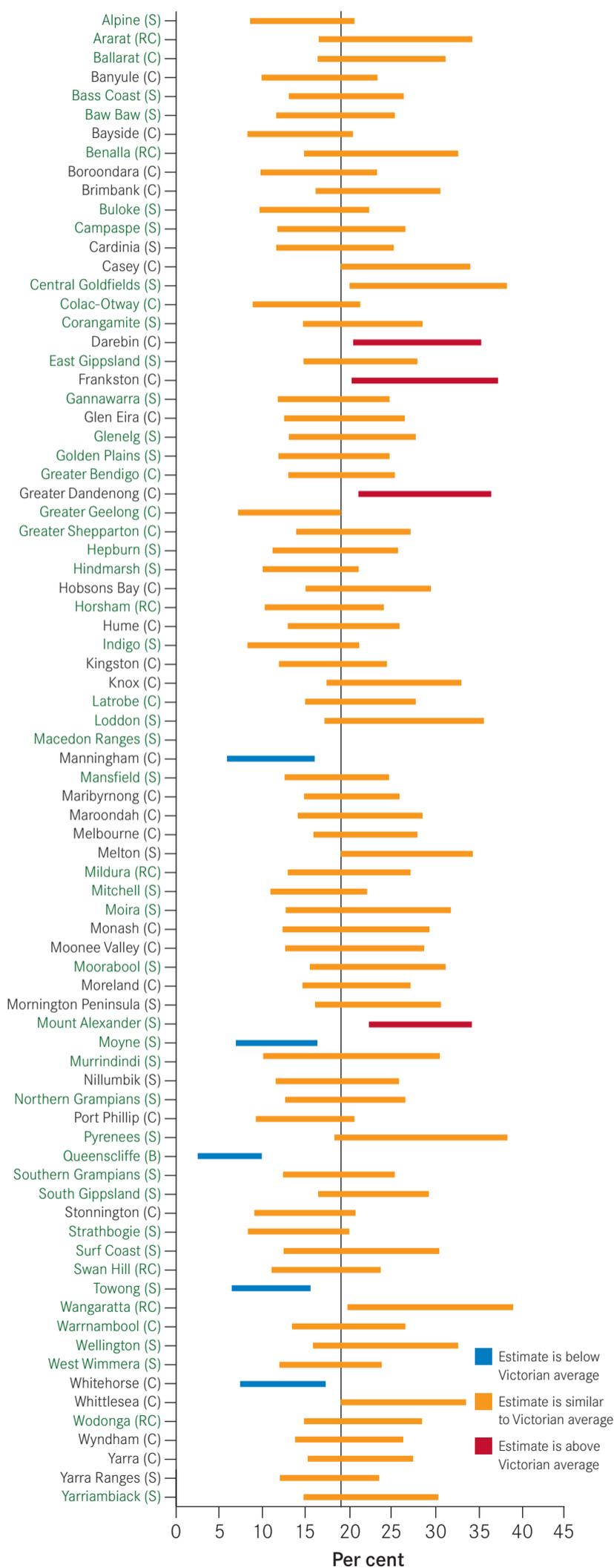
LGA = local government area.

Data are age standardised to the 2006 Victorian population.

The line on the graph is the Victorian estimate, it does not show the 95% CI. See the relevant table for the 95% CI for Victoria (Total).

Table 3.4 and figure 3.7 show the proportion of males who reported being in fair or poor health, by LGA. The highest proportion of males who reported being in fair or poor health was in Greater Dandenong (28.0 per cent) and the lowest proportion was in Queenscliffe (5.0 per cent). There was a higher proportion of males who reported being in fair or poor health in four LGAs: Greater Dandenong (28.0 per cent), Frankston (27.9 per cent), Mount Alexander (27.7 per cent) and Darebin (27.1 per cent), compared with all Victorian males (19.2 per cent).

Figure 3.7: Fair or poor self-reported health, by LGA, males, 2008



Metropolitan and rural LGAs are identified by colour as follows: metropolitan / rural.

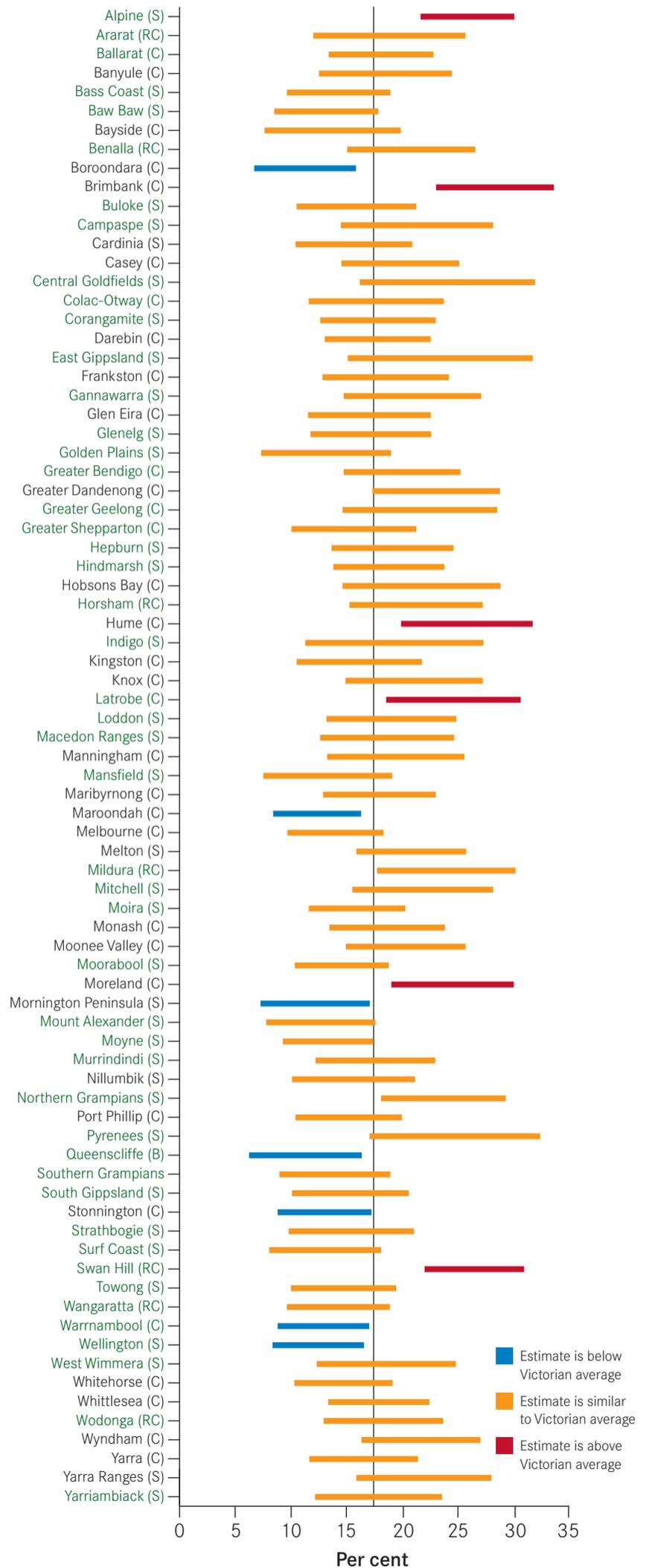
LGA = local government area.

Data are age standardised to the 2006 Victorian population.

The line on the graph is the Victorian estimate, it does not show the 95% CI. See the relevant table for the 95% CI for Victoria (Total).

Table 3.5 and figure 3.8 show the proportion of females who reported being in fair or poor health, by LGA. The highest proportion of females who reported being in fair or poor health was in Brimbank (27.8 per cent) and the lowest proportion was in Queenscliffe (10.1 per cent). There was a higher proportion of females who reported being in fair or poor health in six LGAs: Brimbank (27.8 per cent), Swan Hill (26.0 per cent), Alpine (25.4 per cent), Hume (25.1 per cent), Latrobe (23.9 per cent) and Moreland (23.9 per cent) compared with all Victorian females (17.5 per cent).

Figure 3.8: Fair or poor self-reported health, by LGA, females, 2008



Metropolitan and rural LGAs are identified by colour as follows: metropolitan / rural.

LGA = local government area.

Data are age standardised to the 2006 Victorian population.

The line on the graph is the Victorian estimate, it does not show the 95% CI. See the relevant table for the 95% CI for Victoria (Total).

## Self-reported health by selected health indicators

Tables 3.6 and 3.7 show self-reported health status for males and females, by selected health indicators. The rates for fair or poor self-reported health were higher than the rates for Victoria among males and females who reported higher levels of psychological distress, current smoking, underweight and obese body weight and lower levels of physical activity.

The rates for fair or poor health status were also higher for males who reported consuming alcohol at levels which put them at risk for long-term harm, while the rates for fair or poor health status were higher for females who also reported being abstainers (non-drinkers) and meeting neither the fruit or vegetable consumption guidelines.

**Table 3.6: Self-reported health status, by selected health indicators, males, 2008**

Region	Excellent / Very Good			Good			Fair / Poor		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
<b>Level of psychological distress<sup>(a)</sup></b>									
Low (10–15)	47.2	45.6	48.9	39.2	37.6	40.9	13.5	12.3	14.6
Moderate (16–21)	34.2	31.4	37.0	40.2	37.4	43.1	25.4	23.1	27.8
High (22–29)	20.8	17.2	25.0	38.2	33.7	42.9	40.4	36.2	44.8
Very high (30–50)	10.9	7.5	15.7	26.2	19.6	34.0	62.6	54.5	70.0
<b>Physical activity<sup>(b)</sup></b>									
Sedentary	25.1	19.8	31.3	40.2	34.0	46.8	34.5	28.9	40.7
Insufficient time and/or sessions	33.2	30.6	35.9	42.4	39.7	45.1	24.2	21.9	26.6
Sufficient time and sessions	46.7	45.0	48.5	38.1	36.4	39.8	15.0	13.8	16.2
<b>Alcohol consumption<sup>(c)</sup></b>									
At risk or high risk of long-term harm	26.7	22.2	31.8	44.6	38.9	50.5	28.5	23.2	34.5
At risk or high risk of short-term harm	41.2	39.4	43.0	40.8	39.0	42.7	17.7	16.4	19.2
Abstainer from alcohol	39.6	35.7	43.6	37.1	33.3	41.0	23.0	19.9	26.5
<b>Nutrition<sup>(d)</sup></b>									
Met guidelines for fruit and vegetable consumption	48.3	41.4	55.2	39.0	32.6	45.9	12.6	9.2	17.1
Met guidelines for vegetable consumption	47.5	41.6	53.6	37.4	31.9	43.2	14.9	11.4	19.2
Met guidelines for fruit consumption	48.1	46.0	50.2	36.1	34.1	38.2	15.6	14.2	17.1
Did not meet guidelines for either fruit or vegetables	36.7	35.0	38.5	41.8	40.0	43.6	21.3	19.9	22.8
<b>Smoking status</b>									
Non-smoker	47.6	45.7	49.4	37.2	35.4	39.0	15.2	13.9	16.6
Ex-smoker	38.6	35.2	42.1	38.4	35.2	41.6	22.8	19.9	26.0
Current	30.8	28.0	33.7	43.7	40.6	46.8	25.2	22.8	27.8
<b>Body weight status<sup>(e)</sup></b>									
Underweight	32.6	22.5	44.6	32.9	24.8	42.2	31.6	22.0	43.1
Normal weight	50.6	48.4	52.7	34.8	32.8	36.9	14.4	13.0	16.0
Overweight	41.6	39.4	43.8	40.8	38.6	43.0	17.4	15.8	19.1
Obese	21.8	19.1	24.7	44.9	41.3	48.6	33.2	29.8	36.7
<b>Total</b>	<b>41.4</b>	<b>40.0</b>	<b>42.7</b>	<b>39.2</b>	<b>37.9</b>	<b>40.6</b>	<b>19.2</b>	<b>18.2</b>	<b>20.2</b>

(a) Based on Kessler 10 Psychological Distress Scale 10 (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) Based on Body Mass Index (BMI) score.

95% CI = 95 per cent 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 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**.

Table 3.7: Self-reported health status, by selected health indicators, females, 2008

Region	Excellent / Very Good			Good			Fair / Poor		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
<b>Level of psychological distress<sup>(a)</sup></b>									
Low (10–15)	55.6	54.1	57.0	34.7	33.3	36.1	9.6	8.8	10.5
Moderate (16–21)	36.8	34.8	38.9	40.7	38.6	42.8	22.4	20.7	24.1
High (22–29)	22.0	19.4	24.8	38.2	35.0	41.5	39.4	36.3	42.7
Very high (30–50)	15.0	11.5	19.3	28.8	24.1	34.0	55.9	50.7	61.0
<b>Physical activity<sup>(b)</sup></b>									
Sedentary	37.2	32.5	42.1	31.2	26.3	36.6	31.0	26.5	35.9
Insufficient time and/or sessions	38.8	36.7	40.9	41.0	38.9	43.2	20.1	18.4	21.8
Sufficient time and sessions	51.0	49.5	52.4	35.3	33.9	36.7	13.7	12.7	14.8
<b>Alcohol consumption<sup>(c)</sup></b>									
At risk or high risk of long-term harm	37.6	32.7	42.6	41.3	35.5	47.4	21.1	16.4	26.7
At risk or high risk of short-term harm	49.6	47.7	51.4	36.6	34.8	38.3	13.7	12.5	15.0
Abstainer from alcohol	37.0	34.6	39.5	37.9	35.4	40.4	24.8	22.8	26.9
<b>Nutrition<sup>(d)</sup></b>									
Met guidelines for fruit and vegetable consumption	60.3	55.9	64.5	26.4	23.0	30.2	13.0	10.0	16.7
Met guidelines for vegetable consumption	57.9	54.2	61.5	28.7	25.6	31.9	13.2	10.6	16.2
Met guidelines for fruit consumption	51.0	49.5	52.5	34.3	32.9	35.8	14.5	13.5	15.6
Did not meet guidelines for either fruit or vegetables	40.2	38.6	41.7	39.1	37.5	40.7	20.6	19.4	22.0
<b>Smoking status</b>									
Non-smoker	49.0	47.6	50.3	35.4	34.1	36.8	15.4	14.5	16.5
Ex-smoker	45.5	42.8	48.1	36.5	33.9	39.3	17.8	15.6	20.1
Current	34.7	32.2	37.3	38.6	36.2	41.0	26.4	24.1	28.7
<b>Body weight status<sup>(e)</sup></b>									
Underweight	50.4	44.6	56.2	26.3	21.7	31.5	23.1	18.4	28.7
Normal weight	56.0	54.5	57.5	32.8	31.3	34.2	11.1	10.2	12.0
Overweight	43.6	41.4	45.9	38.8	36.5	41.0	17.4	15.6	19.2
Obese	26.1	23.6	28.6	42.7	39.8	45.7	31.1	28.3	34.0
<b>Total</b>	<b>45.9</b>	<b>44.8</b>	<b>46.9</b>	<b>36.4</b>	<b>35.4</b>	<b>37.5</b>	<b>17.5</b>	<b>16.7</b>	<b>18.3</b>

(a) Based on Kessler 10 Psychological Distress Scale 10 (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) Based on Body Mass Index (BMI) score.

95% CI = 95 per cent confidence interval.

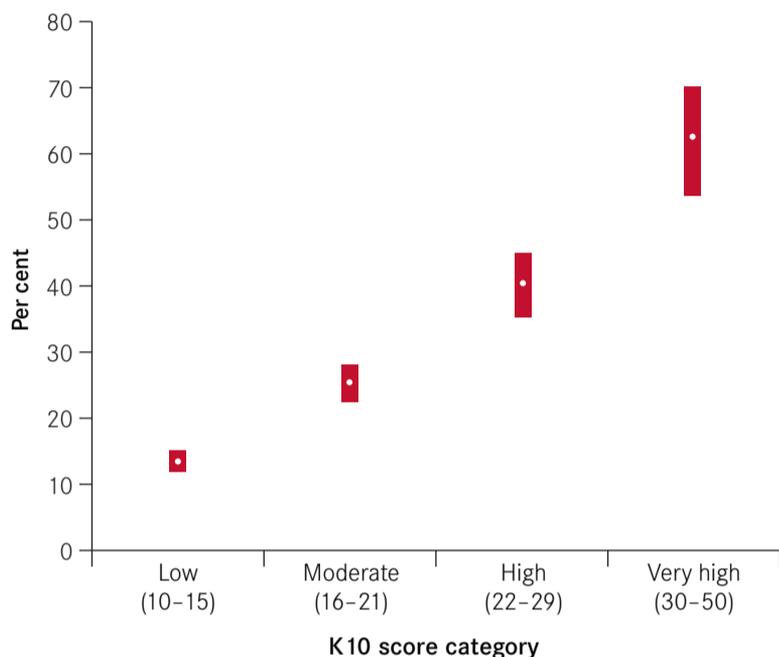
Note that figures may not add to 100 per cent due to a proportion of 'don't know' or 'refused' responses.

Data are 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.

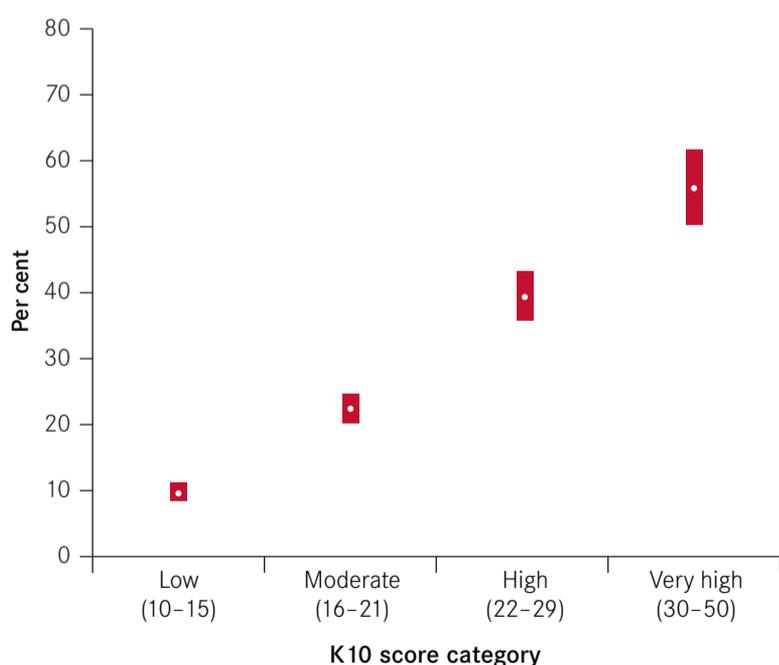
Figures 3.9 and 3.10 show the relationship between fair or poor self-reported health and levels of psychological distress for males and females. The figures show that levels of psychological distress increased as the proportion of males and females with fair or poor health increased.

**Figure 3.9: Fair or poor health status, by level of psychological distress, males, 2008**



Data are age standardised to the 2006 Victorian population.

**Figure 3.10: Fair or poor health status, by level of psychological distress, females, 2008**



Data are age standardised to the 2006 Victorian population.

## Selected health conditions

Table 3.8 shows the prevalence of selected doctor diagnosed health conditions by sex, between 2003 and 2008. The prevalence of heart disease, stroke, cancer and arthritis remained constant between 2003 and 2008, for males and females. However, although the prevalence of osteoporosis remained constant for males between 2003 and 2008, the prevalence increased for females from 6.6 per cent in 2003 to 7.0 per cent in 2008.

**Table 3.8: Selected health conditions, by sex, 2003–2008**

	2003	2004	2005	2006	2007	2008
<b>Males</b>						
Heart disease	8.4	7.9	8.4	8.6	8.7	8.3
Stroke	1.7	3.1	2.5	2.3	2.3	2.8
Cancer	6.8	5.5	6.7	5.8	6.6	6.1
Osteoporosis	1.4	1.9	1.8	1.7	1.9	2.2
Arthritis	16.8	17.2	15.7	15.3	16.2	16.6
<b>Females</b>						
Heart disease	4.8	4.1	6.0	5.7	5.2	5.2
Stroke	1.7	2.2	1.7	1.9	1.5	2.3
Cancer	6.6	6.4	6.7	7.0	6.7	7.1
Osteoporosis	6.6	6.7	6.8	6.9	6.8	7.0
Arthritis	23.5	23.3	23.7	23.8	24.5	23.5
<b>Persons</b>						
Heart disease	6.4	5.7	7.2	7.1	6.8	6.7
Stroke	1.7	2.6	2.1	2.1	1.9	2.5
Cancer	6.6	5.9	6.6	6.3	6.6	6.6
Osteoporosis	4.3	4.6	4.5	4.5	4.5	4.8
Arthritis	20.4	20.5	19.9	19.9	20.6	20.2

Data are age standardised to the 2006 Victorian population.

Ordinary least squares linear regression was used to test for trends over time.

### Heart Disease

In 2008, 6.7 per cent of persons reported having ever been told by a doctor that they had heart disease. 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. After the age of 45 years, the prevalence of heart disease was higher for males, compared with females (table 3.9).

### Stroke

The prevalence of doctor diagnosed stroke was 2.5 per cent in Victoria in 2008, with no difference in prevalence between males and females. However, the prevalence of stroke increased with increasing age and the highest rates were observed for males (9.3 per cent) and females (7.2 per cent) aged 65 years and over (table 3.9).

## Cancer

The prevalence of having ever been diagnosed with cancer was 6.6 per cent in 2008, with no difference in prevalence between males and females. However, the prevalence of cancer increased with increasing age. The highest rates were observed for persons aged 65 years and over (17.6 per cent) (table 3.9).

## Osteoporosis

The prevalence of having ever been diagnosed with osteoporosis was 4.8 per cent in 2008. Females (7.0 per cent) had higher rates than males (2.2 per cent) and prevalence increased with age. The highest rates were observed for males (6.8 per cent) and females (23.2 per cent) aged 65 years and over (table 3.9).

**Table 3.9: Selected health conditions, by age group and sex, 2008**

Age group (years)	Heart disease			Stroke			Cancer			Osteoporosis			Arthritis		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
<b>Males</b>															
18–44 years	0.6	0.4	0.9	0.5*	0.3	0.8	1.0	0.6	1.5	0.3*	0.2	0.7	4.3	3.6	5.2
45–54 years	6.9	5.5	8.6	1.9	1.3	2.9	3.9	3.0	5.1	1.5*	0.9	2.5	16.7	14.7	18.9
55–64 years	12.5	10.9	14.4	4.0	3.1	5.1	10.0	8.4	11.7	3.8	2.9	5.0	30.0	27.6	32.5
65+	27.9	25.9	30.0	9.3	8.1	10.7	19.5	17.7	21.4	6.8	5.8	8.0	41.3	39.1	43.6
<b>Total</b>	<b>8.3</b>	<b>7.8</b>	<b>8.9</b>	<b>2.8</b>	<b>2.5</b>	<b>3.2</b>	<b>6.1</b>	<b>5.6</b>	<b>6.6</b>	<b>2.2</b>	<b>1.9</b>	<b>2.5</b>	<b>16.6</b>	<b>15.9</b>	<b>17.4</b>
<b>Females</b>															
18–44 years	1.3	0.9	1.7	0.4	0.2	0.6	2.4	2.0	3.0	0.6	0.5	0.9	5.4	4.8	6.2
45–54 years	2.9	2.3	3.7	1.9	1.3	2.6	7.9	6.8	9.2	4.8	3.9	5.8	22.8	20.9	24.8
55–64 years	6.8	5.8	7.9	2.4	1.9	3.1	11.3	10.0	12.9	12.3	10.9	13.8	44.3	42.2	46.5
65+	16.8	15.4	18.3	7.2	6.3	8.3	16.1	14.8	17.5	23.2	21.6	24.8	60.6	58.7	62.4
<b>Total</b>	<b>5.2</b>	<b>4.9</b>	<b>5.6</b>	<b>2.3</b>	<b>2.0</b>	<b>2.5</b>	<b>7.1</b>	<b>6.6</b>	<b>7.5</b>	<b>7.0</b>	<b>6.7</b>	<b>7.5</b>	<b>23.5</b>	<b>22.8</b>	<b>24.1</b>
<b>Persons</b>															
18–44 years	0.9	0.7	1.2	0.4	0.3	0.6	1.7	1.4	2.1	0.5	0.4	0.7	4.9	4.4	5.4
45–54 years	4.9	4.1	5.8	1.9	1.4	2.5	5.9	5.2	6.8	3.1	2.6	3.8	19.8	18.4	21.2
55–64 years	9.6	8.6	10.7	3.2	2.7	3.8	10.7	9.6	11.8	8.1	7.2	9.1	37.3	35.6	38.9
65+	21.8	20.6	23.0	8.2	7.4	9.0	17.6	16.6	18.8	15.8	14.8	16.9	51.9	50.5	53.4
<b>Total</b>	<b>6.7</b>	<b>6.3</b>	<b>7.0</b>	<b>2.5</b>	<b>2.3</b>	<b>2.8</b>	<b>6.6</b>	<b>6.2</b>	<b>6.9</b>	<b>4.8</b>	<b>4.5</b>	<b>5.1</b>	<b>20.2</b>	<b>19.7</b>	<b>20.7</b>

95% CI = 95 per cent 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 Victoria** / **below Victoria**.

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

## Arthritis

Approximately one in five persons (20.2 per cent) aged 18 years and over had ever been diagnosed with arthritis in 2008 (table 3.9). The prevalence of arthritis was higher for females (23.5 per cent), compared with males (16.6 per cent) and increased with age. The highest rates were observed for males (41.3 per cent) and females (60.6 per cent) aged 65 years and over.

Table 3.10 and figure 3.11 show the prevalence of arthritis by sex and type of arthritis. Osteoarthritis was the most common type of arthritis reported by both males (10.6 per cent) and females (16.4 per cent). Females had a higher prevalence of osteoarthritis (16.4 per cent) and rheumatoid arthritis (4.2 per cent) compared with their male counterparts (10.6 per cent and 3.2 per cent respectively).

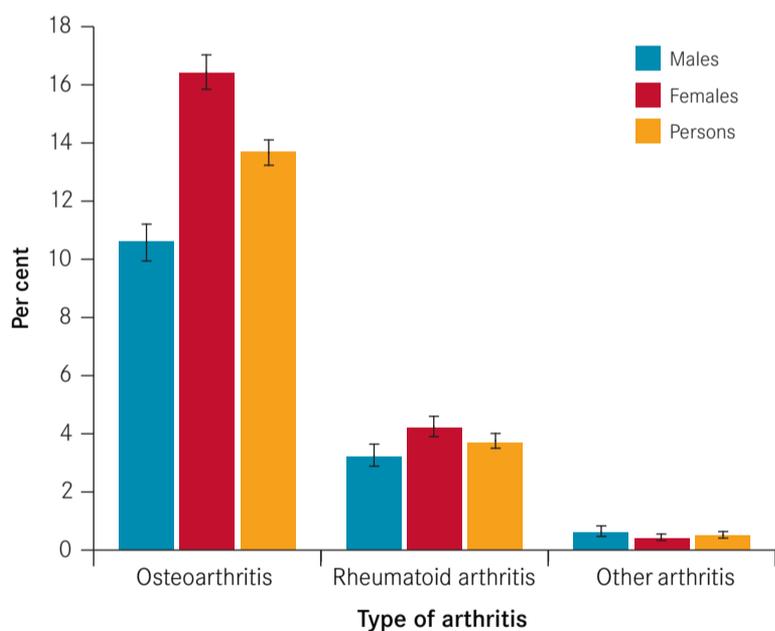
**Table 3.10: Prevalence of arthritis, by sex and arthritis type, 2008**

	Osteoarthritis			Rheumatoid arthritis			Other arthritis		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Males	10.6	10.0	11.2	3.2	2.9	3.6	0.6	0.4	0.8
Females	16.4	15.9	17.0	4.2	3.9	4.6	0.4	0.3	0.5
Persons	13.7	13.2	14.1	3.6	3.5	4.0	0.5	0.4	0.6

95% CI = 95 per cent confidence interval.

Data are age standardised to the 2006 Victorian population.

**Figure 3.11: Prevalence of arthritis, by type and sex, 2008**



Data are age standardised to the 2006 Victorian population.

Excess body weight or obesity, is a risk factor for both osteoarthritis (ARC 2009) and rheumatoid arthritis (Symmons & Harrison 2000). Table 3.11 shows the association between obesity and arthritis (osteoarthritis and rheumatoid arthritis). Persons with osteoarthritis (24.9 per cent) and rheumatoid arthritis (23.7 per cent) had higher rates of obese body weight (body mass index greater than or equal to 30 kg/m<sup>2</sup>) compared with all persons in Victoria (16.7 per cent).

**Table 3.11: Prevalence of arthritis, by type of arthritis, sex and body weight status<sup>(a)</sup>, 2008**

	Underweight (<18.5)			Normal (18.5–24.9)			Overweight (25.0–29.9)			Obese (≥30.0)		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
<b>Males</b>												
Osteoarthritis	**	**	**	<b>42.8</b>	36.5	49.2	<b>29.7</b>	25.5	34.2	<b>24.2</b>	18.6	30.7
Rheumatoid arthritis	**	**	**	<b>31.3</b>	25.0	38.3	<b>40.0</b>	31.5	49.0	<b>26.5</b>	19.5	34.8
Other arthritis	<b>0.9</b>	0.7	1.2	<b>38.9</b>	37.6	40.3	<b>40.4</b>	39.1	41.8	<b>16.5</b>	15.5	17.5
<b>Total</b>	<b>0.9</b>	<b>0.7</b>	<b>1.2</b>	<b>38.6</b>	<b>37.3</b>	<b>40.0</b>	<b>39.9</b>	<b>38.7</b>	<b>41.2</b>	<b>17.3</b>	<b>16.4</b>	<b>18.2</b>
<b>Females</b>												
Osteoarthritis	**	**	**	<b>37.3</b>	33.8	41.0	<b>27.3</b>	23.8	31.0	<b>26.8</b>	23.2	30.7
Rheumatoid arthritis	<b>1.2*</b>	0.6	2.3	<b>38.7</b>	32.9	44.9	<b>31.2</b>	25.4	37.6	<b>22.5</b>	18.5	27.0
Other arthritis	<b>3.8</b>	3.3	4.4	<b>49.5</b>	48.4	50.7	<b>23.7</b>	22.8	24.6	<b>14.9</b>	14.2	15.7
<b>Total</b>	<b>3.6</b>	<b>3.1</b>	<b>4.1</b>	<b>48.1</b>	<b>47.1</b>	<b>49.2</b>	<b>24.2</b>	<b>23.4</b>	<b>25.1</b>	<b>16.1</b>	<b>15.4</b>	<b>16.8</b>
<b>Persons</b>												
Osteoarthritis	<b>1.1*</b>	0.5	2.5	<b>41.7</b>	37.8	45.7	<b>27.4</b>	24.6	30.3	<b>24.9</b>	21.4	28.7
Rheumatoid arthritis	<b>1.3*</b>	0.6	2.6	<b>36.1</b>	31.5	41.0	<b>35.1</b>	29.6	41.1	<b>23.7</b>	18.8	29.3
Other arthritis	<b>2.3</b>	2.1	2.7	<b>44.1</b>	43.3	45.0	<b>32.3</b>	31.4	33.0	<b>15.7</b>	15.1	16.3
<b>Total</b>	<b>2.2</b>	<b>2.0</b>	<b>2.5</b>	<b>43.5</b>	<b>42.6</b>	<b>44.3</b>	<b>31.9</b>	<b>31.1</b>	<b>32.7</b>	<b>16.7</b>	<b>16.1</b>	<b>17.3</b>

(a) Based on Body Mass Index (BMI) score.

95% CI = 95 per cent confidence interval.

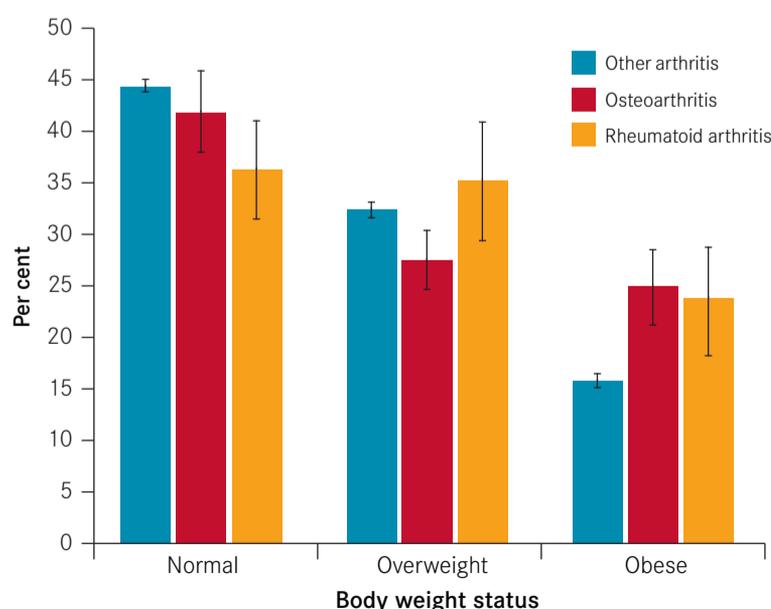
Data are age standardised to the 2006 Victorian population.

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 of greater than 50 per cent and is not reported as it is unreliable for general use.

Figure 3.12 shows the prevalence of arthritis by body weight and type of arthritis. It is important to note that the causal pathway between obesity and arthritis cannot be determined from survey data because surveys are cross-sectional in design. While obesity has been shown to be a risk factor for both osteoarthritis and rheumatoid arthritis, people with these conditions are also at higher risk of developing obesity or exacerbating pre-existing obesity.

**Figure 3.12: Prevalence of doctor diagnosed arthritis, by type of arthritis and body weight status<sup>(a)</sup>, 2008**

(a) Based on Body Mass Index (BMI) score.

Data are age standardised to the 2006 Victorian population.

## Selected health conditions by region and LGA

The tables and figures which follow show the prevalence of heart disease, stroke, cancer, osteoporosis and arthritis by sex and Department of Health region. The prevalence of heart disease, stroke, cancer, osteoporosis and rheumatoid arthritis for males and females was similar between rural and metropolitan Victoria. However, males in rural Victoria (12.2 per cent) had a higher prevalence of osteoarthritis compared with their metropolitan counterparts (9.9 per cent).

### Heart Disease

Females who were resident in the Grampians region had a higher prevalence of doctor diagnosed heart disease (7.3 per cent) compared with all Victorian females (5.2 per cent) (table 3.12). There were no other differences between the Department of Health regions and state estimates for heart disease.

**Table 3.12: Prevalence of heart disease, by sex and Department of Health region, 2008**

Regions	Males			Females			Persons		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Barwon-South Western	7.5	5.8	9.7	5.1	3.8	6.7	6.2	5.1	7.6
Eastern Metropolitan	7.6	6.4	8.9	4.2	3.4	5.1	5.7	5.0	6.5
Gippsland	9.2	7.7	10.9	6.3	5.2	7.6	7.7	6.8	8.8
Grampians	9.4	7.9	11.0	7.3	5.7	9.3	8.3	7.1	9.6
Hume	8.6	7.3	10.1	6.1	5.3	7.0	7.3	6.5	8.2
Loddon Mallee	8.5	7.3	9.9	5.5	4.5	6.6	6.9	6.1	7.8
North and West Metropolitan	8.2	7.1	9.3	5.8	5.1	6.7	6.9	6.2	7.6
Southern Metropolitan	8.7	7.5	10.0	4.7	3.9	5.6	6.5	5.8	7.3
<b>Metropolitan</b>	8.2	7.5	8.9	5.0	4.5	5.5	6.5	6.1	6.9
<b>Rural</b>	8.6	7.9	9.4	6.0	5.4	6.6	7.2	6.7	7.7
<b>Total</b>	8.3	7.8	8.9	5.2	4.9	5.6	6.7	6.3	7.0

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.

95% CI = 95 per cent confidence interval.

Data are 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.

Table 3.13 and figure 3.13 show the prevalence of heart disease for persons by LGA. Persons in four LGAs: Central Goldfields (12.9 per cent); Whittlesea (10.1 per cent); Maribyrnong (9.6 per cent) and Pyrenees (9.6 per cent) had a higher prevalence of doctor diagnosed heart disease compared with all Victorians (6.7 per cent), while Victorians in two LGAs: Towong (4.6 per cent) and Queenscliffe (4.3 per cent) had a lower prevalence of the disease.

# Self-Reported Health and Selected Health Conditions

Table 3.13: Prevalence of heart disease, by sex and LGA, 2008

LGA	Males			Females			Persons		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Alpine (S)	7.9	5.5	11.4	5.5	3.9	7.9	6.9	5.3	9.0
Ararat (RC)	12.6	9.1	17.0	5.7	3.9	8.1	8.6	6.6	11.3
Ballarat (C)	10.2	7.6	13.6	8.4	5.6	12.4	9.1	6.8	12.0
Banyule (C)	6.2*	3.7	10.4	6.3*	3.5	11.1	6.2	4.3	8.9
Bass Coast (S)	9.3	6.7	12.8	5.4	3.9	7.5	7.0	5.4	9.0
Baw Baw (S)	9.0	6.2	12.8	4.3*	2.6	6.9	6.6	4.9	8.8
Bayside (C)	5.8	3.7	8.9	4.9	3.2	7.5	5.2	3.8	7.1
Benalla (RC)	7.2	4.8	10.7	7.4	5.3	10.1	7.2	5.6	9.3
Boroondara (C)	6.4	4.2	9.7	3.1*	1.9	5.0	4.7	3.4	6.6
Brimbank (C)	8.9	6.6	11.7	6.0*	3.5	10.2	7.9	5.7	10.8
Buloke (S)	8.0	5.9	10.9	6.0	3.7	9.5	7.1	5.1	9.6
Campaspe (S)	9.2	5.9	13.9	7.7*	4.5	13.1	8.4	5.8	12.1
Cardinia (S)	9.6	6.7	13.5	4.4	2.8	6.9	6.8	5.0	9.1
Casey (C)	10.7	7.5	15.1	3.0*	1.6	5.6	6.1	4.3	8.6
Central Goldfields (S)	15.5	10.1	23.0	9.2	6.9	12.1	12.9	9.2	17.8
Colac-Otway (S)	7.9	5.4	11.4	6.6	4.6	9.4	7.2	5.3	9.6
Corangamite (S)	6.4	4.0	10.2	6.8	4.5	10.0	6.6	4.8	8.9
Darebin (C)	5.9*	3.4	9.9	5.4	3.7	7.9	5.5	3.9	7.7
East Gippsland (S)	9.8	7.3	13.1	7.3	4.8	10.8	8.5	6.6	11.0
Frankston (C)	9.7	6.8	13.7	6.5*	3.8	10.8	8.0	5.8	11.0
Gannawarra (S)	8.6	5.9	12.5	5.3*	2.9	9.7	6.7	4.8	9.3
Glen Eira (C)	7.0	4.6	10.7	5.0*	3.1	8.1	5.7	4.1	7.9
Glenelg (S)	8.8	6.1	12.5	3.9*	2.2	6.7	6.2	4.5	8.5
Golden Plains (S)	7.6	4.7	11.9	10.3*	5.9	17.2	8.9	5.9	13.1
Greater Bendigo (C)	8.6	5.9	12.2	5.8	3.7	9.0	7.1	5.3	9.6
Greater Dandenong (C)	9.1	5.8	14.1	4.2*	2.4	7.2	6.5	4.4	9.5
Greater Geelong (C)	6.5*	3.9	10.7	4.4*	2.6	7.3	5.6	3.8	8.1
Greater Shepparton (C)	7.2	4.6	11.2	6.4	4.3	9.2	6.8	4.9	9.3
Hepburn (S)	13.1	8.8	19.0	6.2	4.1	9.2	9.1	6.6	12.5
Hindmarsh (S)	7.8	5.9	10.3	6.3	4.2	9.3	7.2	5.4	9.5
Hobsons Bay (C)	6.1	3.9	9.4	3.4*	1.9	5.9	5.2	3.6	7.5
Horsham (RC)	8.7	5.8	12.7	6.8*	3.6	12.3	7.4	5.3	10.2
Hume (C)	10.9	7.4	15.9	6.7	4.2	10.6	8.9	6.5	12.1
Indigo (S)	7.8	5.2	11.5	5.2	3.4	8.0	6.7	4.9	9.0
Kingston (C)	10.1	7.0	14.2	6.7	4.4	10.1	7.8	5.9	10.4
Knox (C)	8.6	5.5	13.0	4.8	3.0	7.6	6.5	4.8	8.9
Latrobe (C)	10.7	7.6	14.9	5.6*	3.5	9.0	8.1	5.7	11.3
Loddon (S)	8.3	5.5	12.4	7.2	5.2	10.0	8.0	6.1	10.4
Macedon Ranges (S)	6.9	4.7	9.9	4.6	2.9	7.3	6.3	4.6	8.4
Manningham (C)	6.5	4.2	9.9	4.9*	3.0	7.9	5.5	4.0	7.6

Metropolitan and rural LGAs are identified by colour as follows: metropolitan / rural.

95% CI = 95 per cent confidence interval.

Data are age standardised to the 2006 Victorian population.

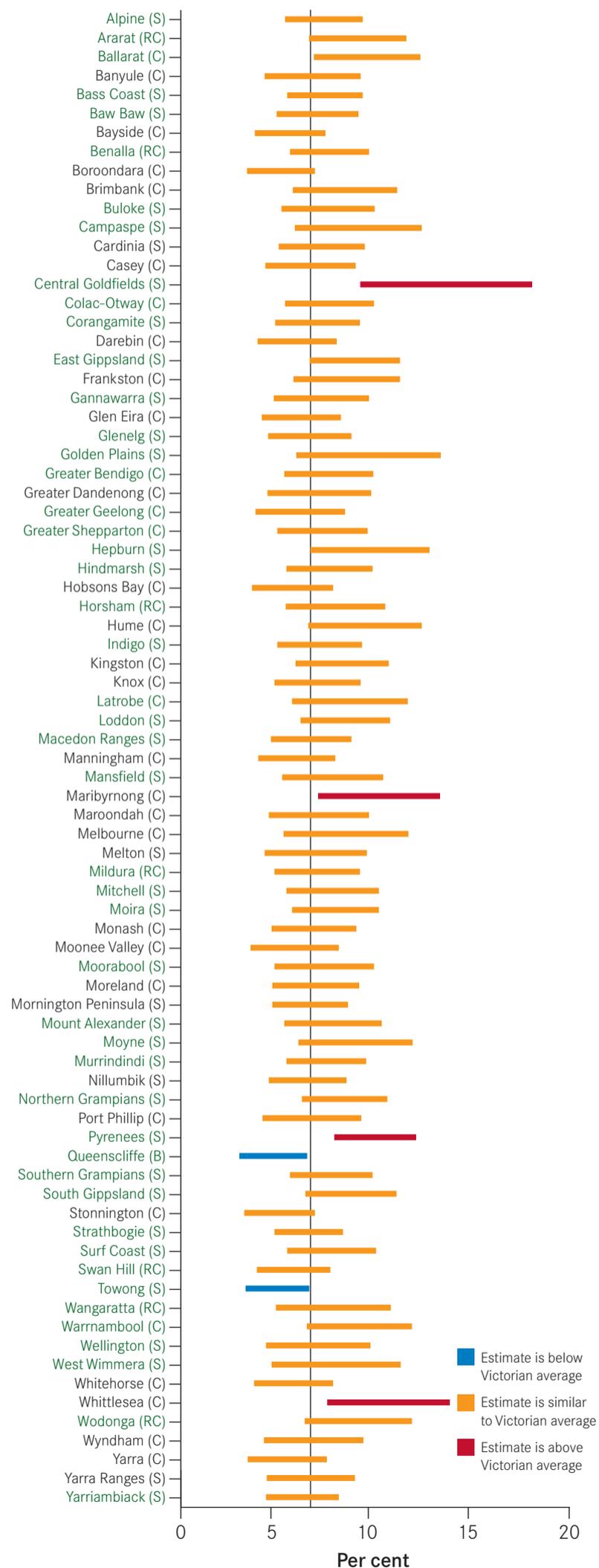
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above Victoria / below Victoria.

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

Table 3.13: Prevalence of heart disease, by sex and LGA, 2008 (continued)

LGA	Males			Females			Persons		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Mansfield (S)	8.8	5.8	13.0	7.1	4.5	11.0	7.3	5.2	10.1
Maribyrnong (C)	9.6	6.2	14.6	9.4	6.0	14.3	9.6	7.0	13.0
Maroondah (C)	9.0	5.8	13.8	3.9*	2.3	6.6	6.5	4.5	9.3
Melbourne (C)	7.3*	4.1	12.7	8.6	5.8	12.4	7.8	5.3	11.4
Melton (S)	10.4	7.5	14.4	3.4*	1.9	6.1	6.3	4.3	9.2
Mildura (RC)	9.7	7.3	12.9	3.5*	1.9	6.3	6.5	4.8	8.9
Mitchell (S)	6.3	4.1	9.7	8.2	5.8	11.5	7.3	5.4	9.8
Moira (S)	9.6	7.0	13.0	5.5	3.5	8.6	7.5	5.7	9.8
Monash (C)	7.3	4.7	11.1	5.7	3.7	8.7	6.4	4.6	8.7
Moonee Valley (C)	5.4*	3.0	9.5	5.2*	3.1	8.6	5.3	3.5	7.8
Moorabool (S)	9.8	6.5	14.4	3.2*	1.8	5.6	6.8	4.8	9.6
Moreland (C)	6.1	3.9	9.3	5.3	3.3	8.2	6.5	4.7	8.8
Mornington Peninsula (S)	8.2	6.0	11.3	3.6*	2.2	5.8	6.2	4.7	8.3
Mount Alexander (S)	9.2	6.0	13.9	5.7	3.6	8.9	7.3	5.3	10.0
Moyne (S)	10.8	7.1	16.0	5.5	3.6	8.2	8.4	6.0	11.6
Murrindindi (S)	8.2	5.8	11.5	5.3	3.6	7.7	7.1	5.4	9.2
Nilumbik (S)	6.3	4.2	9.3	4.3	2.8	6.5	6.1	4.5	8.2
Northern Grampians (S)	7.3	5.1	10.2	7.4	5.0	10.9	8.0	6.2	10.3
Port Phillip (C)	5.7*	3.2	10.2	5.6	3.8	8.3	6.1	4.2	8.9
Pyrenees (S)	9.0	6.8	11.7	7.9	5.3	11.6	9.6	7.9	11.8
Queenscliffe (B)	5.1*	3.1	8.2	3.9*	2.3	6.4	4.3	3.0	6.1
Southern Grampians (S)	7.4	5.4	10.1	7.5	4.9	11.3	7.3	5.6	9.5
South Gippsland (S)	8.8	6.1	12.4	8.0	6.0	10.6	8.3	6.4	10.8
Stonnington (C)	7.6	5.1	11.2	2.3*	1.3	4.0	4.6	3.2	6.6
Strathbogie (S)	7.7	5.6	10.7	4.7	3.2	7.0	6.2	4.8	8.0
Surf Coast (S)	10.1	7.2	13.9	4.2	2.7	6.6	7.3	5.4	9.7
Swan Hill (RC)	6.6	4.3	9.8	3.9	2.5	6.2	5.3	3.9	7.3
Towong (S)	5.7	3.8	8.5	4.3	2.7	6.6	4.6	3.3	6.3
Wangaratta (RC)	9.1*	5.2	15.4	5.4	3.7	7.7	7.2	4.9	10.5
Warrnambool (C)	8.3	5.6	12.1	7.5	4.9	11.4	8.7	6.4	11.5
Wellington (S)	5.8*	3.0	11.0	6.1	4.0	9.2	6.4	4.4	9.4
West Wimmera (S)	10.4	6.5	16.2	4.4	2.8	6.9	7.2	4.7	11.0
Whitehorse (C)	7.7	5.0	11.6	3.1*	1.8	5.3	5.3	3.7	7.5
Whittlesea (C)	12.2	8.2	17.8	7.3	4.8	11.0	10.1	7.5	13.5
Wodonga (RC)	12.4	8.8	17.4	5.8	3.7	9.1	8.6	6.3	11.6
Wyndham (C)	7.8	5.2	11.7	4.0*	2.1	7.3	6.2	4.2	9.1
Yarra (C)	6.9*	4.2	11.3	5.0	3.6	6.8	5.0	3.4	7.2
Yarra Ranges (S)	8.9	5.9	13.0	3.9*	2.2	7.1	6.2	4.4	8.6
Yarriambiack (S)	4.3*	2.4	7.3	8.0	5.9	10.9	5.9	4.4	7.8
<b>Total</b>	<b>8.3</b>	<b>7.8</b>	<b>8.9</b>	<b>5.2</b>	<b>4.9</b>	<b>5.6</b>	<b>6.7</b>	<b>6.3</b>	<b>7.0</b>

Figure 3.13: Prevalence of heart disease, by LGA, 2008



Metropolitan and rural LGAs are identified by colour as follows:  
metropolitan / rural.

LGA = local government area.

Data are age standardised to the 2006 Victorian population.

The line on the graph is the Victorian estimate, it does not show the 95% CI. See the relevant table for the 95% CI for Victoria (Total).

## Stroke

There were no differences between Department of Health regions and the state in the prevalence of stroke for either sex (table 3.14). The prevalence of stroke was too low to allow for reliable analysis at the LGA level.

**Table 3.14: Prevalence of stroke, by sex, and Department of Health region, 2008**

Regions	Males			Females			Persons		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Barwon-South Western	2.4	1.6	3.6	2.3	1.4	3.6	2.3	1.7	3.1
Eastern Metropolitan	2.6	1.9	3.6	1.7	1.3	2.3	2.2	1.7	2.7
Gippsland	2.9	1.9	4.3	2.4	1.7	3.4	2.7	2.1	3.5
Grampians	3.7	2.5	5.5	2.6	1.9	3.6	3.2	2.4	4.1
Hume	3.4	2.6	4.2	2.5	2.0	3.2	2.9	2.4	3.4
Loddon Mallee	2.7	1.8	4.0	2.7	2.1	3.5	2.7	2.1	3.4
North and West Metropolitan	2.9	2.3	3.7	2.5	2.0	3.1	2.7	2.3	3.2
Southern Metropolitan	2.9	2.2	3.8	2.3	1.8	3.1	2.6	2.1	3.1
<b>Metropolitan</b>	<b>2.8</b>	<b>2.4</b>	<b>3.3</b>	<b>2.2</b>	<b>1.9</b>	<b>2.5</b>	<b>2.5</b>	<b>2.2</b>	<b>2.8</b>
<b>Rural</b>	<b>2.9</b>	<b>2.4</b>	<b>3.4</b>	<b>2.5</b>	<b>2.1</b>	<b>2.9</b>	<b>2.7</b>	<b>2.4</b>	<b>3.0</b>
<b>Total</b>	<b>2.8</b>	<b>2.5</b>	<b>3.2</b>	<b>2.3</b>	<b>2.0</b>	<b>2.5</b>	<b>2.5</b>	<b>2.3</b>	<b>2.8</b>

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.

95% CI = 95 per cent confidence interval.

Data are age standardised to the 2006 Victorian population.

## Cancer

The prevalence of ever having been diagnosed with cancer was similar between most of the metropolitan and rural regions of Victoria (table 3.15). However, the lifetime prevalence of cancer was lower for persons in the North and West Metropolitan region (5.6 per cent), compared with Victoria (6.6 per cent).

**Table 3.15: Prevalence of cancer, by sex, and Department of Health region, 2008**

Regions	Males			Females			Persons		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Barwon-South Western	5.4	4.1	6.9	9.4	7.4	11.8	7.3	6.1	8.8
Eastern Metropolitan	5.4	4.4	6.6	6.7	5.7	7.8	6.0	5.3	6.8
Gippsland	6.2	5.0	7.6	6.2	5.0	7.6	6.1	5.2	7.0
Grampians	6.2	5.0	7.7	7.7	6.5	9.1	6.9	6.0	7.9
Hume	7.3	6.2	8.7	7.6	6.5	8.9	7.4	6.6	8.3
Loddon Mallee	6.9	5.7	8.3	8.0	6.5	9.8	7.4	6.5	8.6
North and West Metropolitan	5.1	4.2	6.1	6.1	5.4	6.9	5.6	5.0	6.2
Southern Metropolitan	7.2	6.0	8.5	7.7	6.7	8.9	7.4	6.6	8.3
<b>Metropolitan</b>	<b>6.0</b>	<b>5.4</b>	<b>6.6</b>	<b>6.8</b>	<b>6.3</b>	<b>7.4</b>	<b>6.4</b>	<b>6.0</b>	<b>6.8</b>
<b>Rural</b>	<b>6.3</b>	<b>5.7</b>	<b>7.0</b>	<b>7.9</b>	<b>7.1</b>	<b>8.7</b>	<b>7.1</b>	<b>6.6</b>	<b>7.6</b>
<b>Total</b>	<b>6.1</b>	<b>5.6</b>	<b>6.6</b>	<b>7.1</b>	<b>6.6</b>	<b>7.5</b>	<b>6.6</b>	<b>6.2</b>	<b>6.9</b>

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.

95% CI = 95 per cent confidence interval.

Data are 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.

Table 3.16 and figure 3.14 show the prevalence of cancer for persons by LGA (the rates for males and females were too low to allow reliable analysis at the LGA level). Persons in the LGAs of Frankston (10.5 per cent) and Hepburn (9.6 per cent) had a higher prevalence of doctor diagnosed cancer compared with all Victorians (6.6 per cent), while Victorians in the LGAs of Southern Grampians (4.3 per cent), Yarra Ranges (3.7 per cent) and Wyndham (3.5 per cent) had a lower prevalence of the disease.

Table 3.16: Prevalence of cancer, by sex and LGA, 2008

LGA	Males			Females			Persons		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Alpine (S)	4.6	2.9	7.1	6.8	4.6	10.0	5.8	4.2	7.8
Ararat (RC)	7.6	4.9	11.7	8.1	5.0	13.0	7.4	5.2	10.4
Ballarat (C)	4.4*	2.3	8.3	7.9	5.6	11.2	6.4	4.6	8.9
Banyule (C)	6.1*	3.3	11.2	4.7	3.0	7.5	5.5	3.5	8.3
Bass Coast (S)	6.2*	3.8	9.9	7.1	4.9	10.0	6.4	4.7	8.7
Baw Baw (S)	4.4*	2.5	7.6	4.6*	2.8	7.4	4.4	3.0	6.4
Bayside (C)	5.8	3.7	9.1	7.5	5.1	10.8	6.7	5.0	8.9
Benalla (RC)	8.0	5.2	12.0	9.2	5.9	14.2	8.6	6.2	11.9
Boroondara (C)	7.6	5.0	11.3	7.1	4.9	10.2	7.2	5.4	9.4
Brimbank (C)	2.1*	1.0	4.4	7.4	5.0	10.9	4.4	3.0	6.3
Buloke (S)	5.7	3.7	8.8	5.2	3.2	8.3	5.5	3.9	7.7
Campaspe (S)	5.5	3.5	8.6	5.5	3.6	8.5	5.5	4.0	7.5
Cardinia (S)	4.6*	2.6	7.8	6.7	4.4	9.9	5.7	4.1	8.0
Casey (C)	4.9*	2.9	8.0	7.7	5.2	11.4	7.2	5.3	9.8
Central Goldfields (S)	6.2	3.9	9.6	10.1	7.1	14.3	8.4	6.3	11.2
Colac-Otway (S)	3.0*	1.6	5.4	10.6	7.8	14.3	6.7	4.7	9.4
Corangamite (S)	3.1*	1.6	5.9	8.4	6.1	11.6	5.9	4.3	7.9
Darebin (C)	9.7	6.0	15.1	7.0	4.7	10.1	8.3	5.9	11.5
East Gippsland (S)	7.8	5.6	10.7	5.3	3.6	7.7	6.4	4.8	8.4
Frankston (C)	10.5	6.5	16.6	10.4	7.3	14.6	10.5	7.6	14.2
Gannawarra (S)	7.4	5.0	10.8	9.6*	5.6	16.1	7.5	5.4	10.2
Glen Eira (C)	6.8*	4.2	10.9	9.9	6.9	14.2	8.4	6.2	11.3
Glenelg (S)	6.6*	4.0	10.5	6.6*	3.9	11.1	6.7	4.4	10.1
Golden Plains (S)	8.4	5.6	12.4	6.0	3.9	9.0	7.4	5.3	10.3
Greater Bendigo (C)	9.9	6.8	14.2	9.1	5.9	13.6	9.3	6.9	12.3
Greater Dandenong (C)	5.0*	2.5	9.8	6.0	3.8	9.2	5.8	3.8	8.7
Greater Geelong (C)	5.4	3.5	8.1	11.4	8.2	15.5	8.2	6.2	10.9
Greater Shepparton (C)	6.6	4.2	10.3	8.9	5.6	14.0	7.3	5.2	9.9
Hepburn (S)	6.3*	3.8	10.2	13.2	10.1	17.1	9.6	7.5	12.3
Hindmarsh (S)	4.9*	2.7	8.8	5.1	3.2	8.0	5.2	3.5	7.7
Hobsons Bay (C)	5.8*	3.4	9.8	8.1	5.5	11.8	7.4	5.3	10.1
Horsham (RC)	5.9*	3.5	9.7	4.5	2.9	7.0	5.4	3.9	7.6
Hume (C)	4.8*	2.5	9.0	4.4*	2.5	7.5	4.3	2.8	6.6
Indigo (S)	6.3	4.0	10.0	10.0	7.3	13.4	8.7	6.6	11.5
Kingston (C)	6.4	4.1	10.1	8.2*	4.7	14.0	6.9	4.8	9.9
Knox (C)	6.7*	3.9	11.2	7.2	4.9	10.4	6.8	4.9	9.3
Latrobe (C)	6.1	4.3	8.5	6.9	4.5	10.6	6.1	4.1	8.8
Loddon (S)	5.7	3.6	8.7	6.1	4.2	8.9	6.0	4.4	8.0
Macedon Ranges (S)	8.3	5.3	12.7	7.9	5.5	11.3	7.5	5.5	10.0
Manningham (C)	3.7*	2.0	6.7	8.1	5.7	11.3	6.0	4.4	8.1

Metropolitan and rural LGAs are identified by colour as follows: metropolitan / rural.

95% CI = 95 per cent confidence interval.

Data are 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.

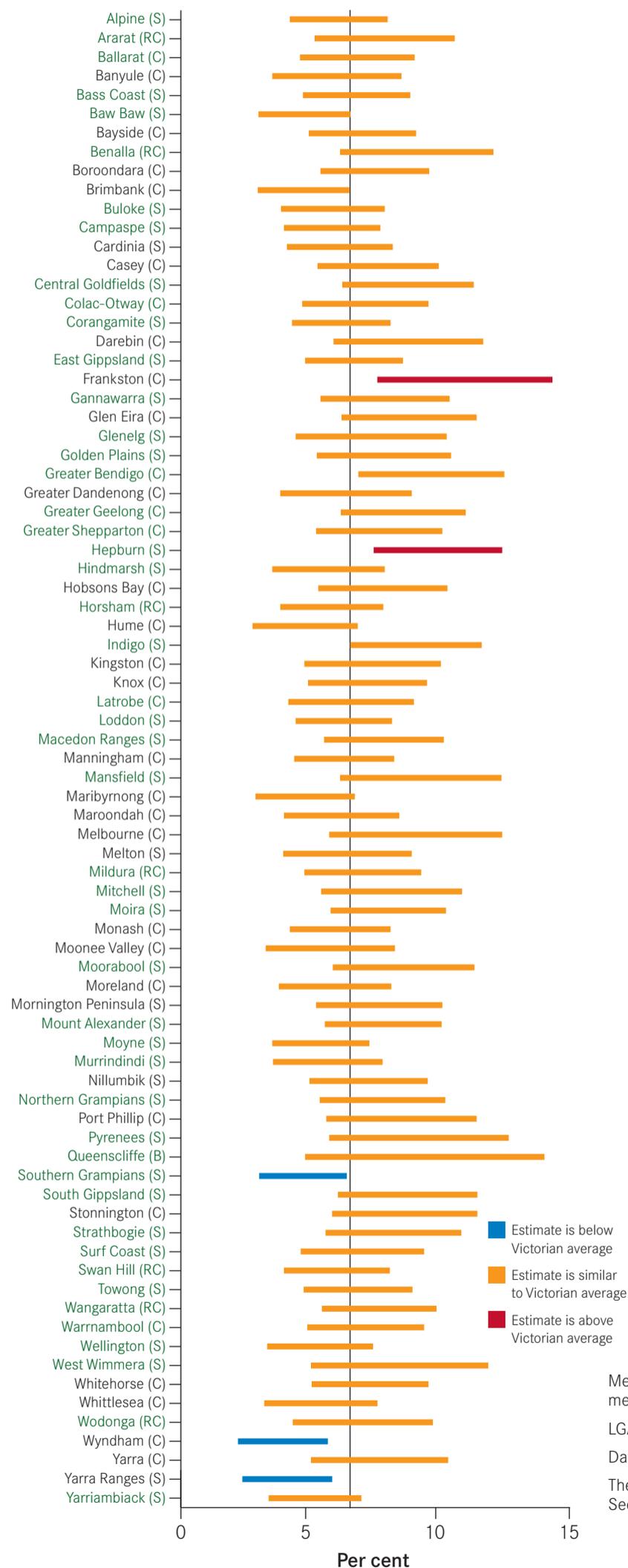
\* Estimate has a relative standard error of between 25 and 50 per cent and should be interpreted with caution.

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

Table 3.16: Prevalence of cancer, by sex and LGA, 2008 (continued)

LGA	Males			Females			Persons		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Mansfield (S)	9.6	6.5	13.8	8.8	5.5	13.9	8.7	6.2	12.3
Maribyrnong (C)	**			7.3	4.7	11.0	4.3	2.9	6.5
Maroondah (C)	6.0*	3.7	9.7	6.0*	3.5	9.8	5.8	4.0	8.2
Melbourne (C)	11.0	7.4	15.9	6.2*	3.4	11.1	8.5	5.8	12.3
Melton (S)	6.6	4.3	9.9	7.1	4.5	10.9	5.9	4.0	8.8
Mildura (RC)	5.1*	2.9	8.7	7.3	4.8	11.0	6.6	4.8	9.1
Mitchell (S)	5.7	3.5	9.0	9.0*	5.5	14.4	7.7	5.4	10.7
Moira (S)	7.5	4.9	11.2	7.9	5.6	11.2	7.7	5.8	10.1
Monash (C)	3.3	2.1	5.2	7.1	4.7	10.4	5.8	4.2	7.9
Moonee Valley (C)	5.1*	2.5	10.1	4.9*	3.0	7.9	5.2	3.3	8.1
Moorabool (S)	8.5	5.8	12.2	8.0*	4.8	12.9	8.2	5.9	11.2
Moreland (C)	3.2*	1.8	5.6	7.9	5.0	12.3	5.5	3.8	7.9
Mornington Peninsula (S)	7.2	4.6	11.2	6.6	4.2	10.0	7.2	5.2	9.9
Mount Alexander (S)	6.0	3.8	9.3	8.7	5.9	12.5	7.5	5.6	9.9
Moyne (S)	3.7*	2.0	6.6	6.3	4.1	9.5	5.0	3.5	7.1
Murrindindi (S)	6.9*	4.1	11.3	3.9*	2.4	6.4	5.2	3.6	7.6
Nilumbik (S)	8.7	5.7	13.0	5.0*	3.0	8.2	6.9	5.0	9.4
Northern Grampians (S)	5.7	3.5	9.1	8.2	5.5	12.0	7.4	5.4	10.1
Port Phillip (C)	7.5	4.8	11.6	10.0	6.8	14.5	8.0	5.6	11.3
Pyrenees (S)	10.3*	6.1	16.9	7.0	4.4	10.9	8.6	5.8	12.5
Queenscliffe (B)	3.2*	1.5	6.8	17.3	14.7	20.3	8.3	4.8	13.9
Southern Grampians (S)	4.6*	2.7	7.7	4.5*	2.8	7.2	4.3	3.0	6.2
South Gippsland (S)	9.3	6.0	14.1	7.4	4.8	11.2	8.3	6.1	11.3
Stonnington (C)	11.2	7.3	17.0	5.4	3.5	8.2	8.2	5.9	11.3
Strathbogie (S)	8.3	5.8	11.8	6.9	4.4	10.8	7.8	5.6	10.7
Surf Coast (S)	7.4*	4.2	12.7	6.4	4.4	9.2	6.6	4.6	9.2
Swan Hill (RC)	3.7*	2.1	6.6	7.3	4.9	10.8	5.6	4.0	7.9
Towong (S)	8.5	5.8	12.4	5.0	3.3	7.5	6.5	4.8	8.8
Wangaratta (RC)	7.5	5.1	11.1	7.1	4.9	10.3	7.3	5.5	9.7
Warrnambool (C)	7.4	4.8	11.4	6.0	3.9	9.0	6.7	4.9	9.2
Wellington (S)	5.2*	2.9	9.1	4.5*	2.7	7.5	4.9	3.3	7.2
West Wimmera (S)	11.7	7.3	18.3	3.9	2.4	6.2	7.7	5.0	11.7
Whitehorse (C)	8.0	5.2	12.1	6.1	4.0	9.3	6.9	5.1	9.4
Whittlesea (C)	4.2*	2.1	8.2	5.9*	3.6	9.6	4.9	3.2	7.4
Wodonga (RC)	7.7*	4.4	13.1	4.2	2.6	6.7	6.5	4.3	9.6
Wyndham (C)	3.0*	1.4	6.2	4.2*	2.5	7.2	3.5	2.2	5.5
Yarra (C)	8.0	5.3	11.9	7.2	4.5	11.2	7.2	5.0	10.2
Yarra Ranges (S)	2.3*	1.0	5.1	5.0*	3.0	8.3	3.7	2.4	5.6
Yarriambiack (S)	3.6*	2.1	6.0	6.1	4.0	9.2	4.8	3.4	6.8
<b>Total</b>	<b>6.1</b>	<b>5.6</b>	<b>6.6</b>	<b>7.1</b>	<b>6.6</b>	<b>7.5</b>	<b>6.6</b>	<b>6.2</b>	<b>6.9</b>

Figure 3.14: Prevalence of cancer, by LGA, 2008



Metropolitan and rural LGAs are identified by colour as follows:  
metropolitan / rural.

LGA = local government area.

Data are age standardised to the 2006 Victorian population.

The line on the graph is the Victorian estimate, it does not show the 95% CI.  
See the relevant table for the 95% CI for Victoria (Total).

## Osteoporosis

The prevalence of osteoporosis was similar between Department of Health regions and the state, for both sexes (table 3.17).

**Table 3.17: Prevalence of osteoporosis, by sex, and Department of Health region, 2008**

Regions	Males			Females			Persons		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Barwon-South Western	1.7	1.1	2.5	6.4	5.1	8.0	4.2	3.4	5.1
Eastern Metropolitan	2.2	1.5	3.1	7.1	6.2	8.2	4.8	4.2	5.5
Gippsland	1.8	1.2	2.7	7.6	6.5	8.9	4.7	4.1	5.5
Grampians	2.3	1.6	3.3	6.0	5.1	7.2	4.3	3.6	5.0
Hume	2.4	1.8	3.3	7.0	6.2	7.9	4.8	4.2	5.4
Loddon Mallee	3.0	2.2	4.2	7.6	6.7	8.8	5.5	4.8	6.3
North and West Metropolitan	2.0	1.5	2.7	8.0	7.2	8.9	5.2	4.6	5.8
Southern Metropolitan	2.3	1.7	3.1	6.2	5.4	7.2	4.4	3.8	5.0
<b>Metropolitan</b>	2.1	1.8	2.6	7.1	6.6	7.6	4.8	4.5	5.2
<b>Rural</b>	2.2	1.9	2.6	6.9	6.4	7.5	4.7	4.4	5.0
<b>Total</b>	2.2	1.9	2.5	7.0	6.7	7.5	4.8	4.5	5.1

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.

95% CI = 95 per cent confidence interval.

Data are age standardised to the 2006 Victorian population.

Table 3.18 and figure 3.15 show the prevalence of osteoporosis for females by LGA. Females in the LGAs of Hume (13.2 per cent), Central Goldfields (11.4 per cent), Yarra (11.4 per cent), Wellington (11.1 per cent) and Melbourne (10.1 per cent) had a higher prevalence of doctor diagnosed osteoporosis compared with all Victorian females (7.0 per cent), while females in the LGAs of Queenscliffe (4.3 per cent), Hindmarsh (4.0 per cent) and Mornington Peninsula (3.5 per cent) had a lower prevalence of the disease.

The prevalence of osteoporosis for males was too low to allow reliable analysis at the LGA level.

Table 3.18: Prevalence of osteoporosis, by LGA, females, 2008

LGA	%	Lower 95% CI	Upper 95% CI	LGA	%	Lower 95% CI	Upper 95% CI
Alpine (S)	7.2	5.3	9.7	Mansfield (S)	6.5	4.5	9.3
Ararat (RC)	5.1	3.3	7.7	Maribyrnong (C)	8.3	5.1	13.0
Ballarat (C)	5.9	3.9	8.7	Maroondah (C)	5.7	3.9	8.3
Banyule (C)	5.4	3.5	8.1	Melbourne (C)	10.1	7.5	13.4
Bass Coast (S)	4.9	3.5	6.7	Melton (S)	9.6	6.9	13.1
Baw Baw (S)	7.4	5.1	10.7	Mildura (RC)	6.4	4.3	9.4
Bayside (C)	6.5	4.5	9.4	Mitchell (S)	7.1	4.8	10.3
Benalla (RC)	8.5	6.2	11.6	Moira (S)	7.0	5.1	9.6
Boroondara (C)	6.9	4.8	9.7	Monash (C)	8.5	6.0	11.8
Brimbank (C)	9.3	7.0	12.2	Moonee Valley (C)	8.8	6.5	11.8
Buloke (S)	7.8	5.5	10.7	Moorabool (S)	6.2	4.4	8.6
Campaspe (S)	6.4	4.5	9.1	Moreland (C)	9.3	6.2	13.8
Cardinia (S)	5.5	3.6	8.3	Mornington Peninsula (S)	3.5*	2.2	5.6
Casey (C)	5.1	3.2	7.9	Mount Alexander (S)	6.7	4.5	9.7
Central Goldfields (S)	11.4	8.6	15.0	Moyne (S)	7.4	5.3	10.1
Colac-Otway (S)	7.9	5.4	11.3	Murrindindi (S)	7.5	5.3	10.6
Corangamite (S)	7.1	5.1	9.7	Nilumbik (S)	7.3	5.0	10.7
Darebin (C)	6.6	4.3	10.0	Northern Grampians (S)	5.7	4.1	8.0
East Gippsland (S)	6.4	4.5	8.9	Port Phillip (C)	7.0	4.8	10.0
Frankston (C)	9.9	7.4	13.2	Pyrenees (S)	10.9*	6.2	18.2
Gannawarra (S)	7.0	5.1	9.5	Queenscliffe (B)	4.3	2.9	6.3
Glen Eira (C)	4.9	3.2	7.4	Southern Grampians (S)	5.9	4.0	8.6
Glenelg (S)	8.8	5.6	13.4	South Gippsland (S)	5.6	3.7	8.3
Golden Plains (S)	5.6	3.6	8.4	Stonnington (C)	6.3	4.1	9.4
Greater Bendigo (C)	7.6	5.6	10.1	Strathbogie (S)	6.8	4.9	9.5
Greater Dandenong (C)	7.8	5.1	11.6	Surf Coast (S)	4.7	3.2	6.9
Greater Geelong (C)	5.7	3.7	8.5	Swan Hill (RC)	9.4	6.8	12.9
Greater Shepparton (C)	5.9	4.0	8.6	Towong (S)	6.0	4.0	8.9
Hepburn (S)	5.8	3.9	8.4	Wangaratta (RC)	7.2	5.2	10.0
Hindmarsh (S)	4.0	2.6	6.0	Warrnambool (C)	8.2	5.5	12.1
Hobsons Bay (C)	4.8	3.0	7.5	Wellington (S)	11.1	8.1	14.9
Horsham (RC)	7.7	5.3	11.0	West Wimmera (S)	5.7	3.9	8.3
Hume (C)	13.2	10.5	16.4	Whitehorse (C)	7.0	4.9	10.0
Indigo (S)	5.3	3.5	7.9	Whittlesea (C)	9.1	6.7	12.3
Kingston (C)	5.1	3.3	8.0	Wodonga (RC)	8.8	6.2	12.3
Knox (C)	8.0	5.7	11.2	Wyndham (C)	8.5	6.0	11.8
Latrobe (C)	9.2	7.1	11.9	Yarra (C)	11.4	8.2	15.5
Loddon (S)	5.0	3.5	7.2	Yarra Ranges (S)	5.0	3.5	7.1
Macedon Ranges (S)	7.0	4.6	10.5	Yarriambiack (S)	8.6*	5.3	13.7
Manningham (C)	7.4	5.0	10.9	<b>Total</b>	<b>7.0</b>	<b>6.7</b>	<b>7.5</b>

Metropolitan and rural LGAs are identified by colour as follows: metropolitan / rural.

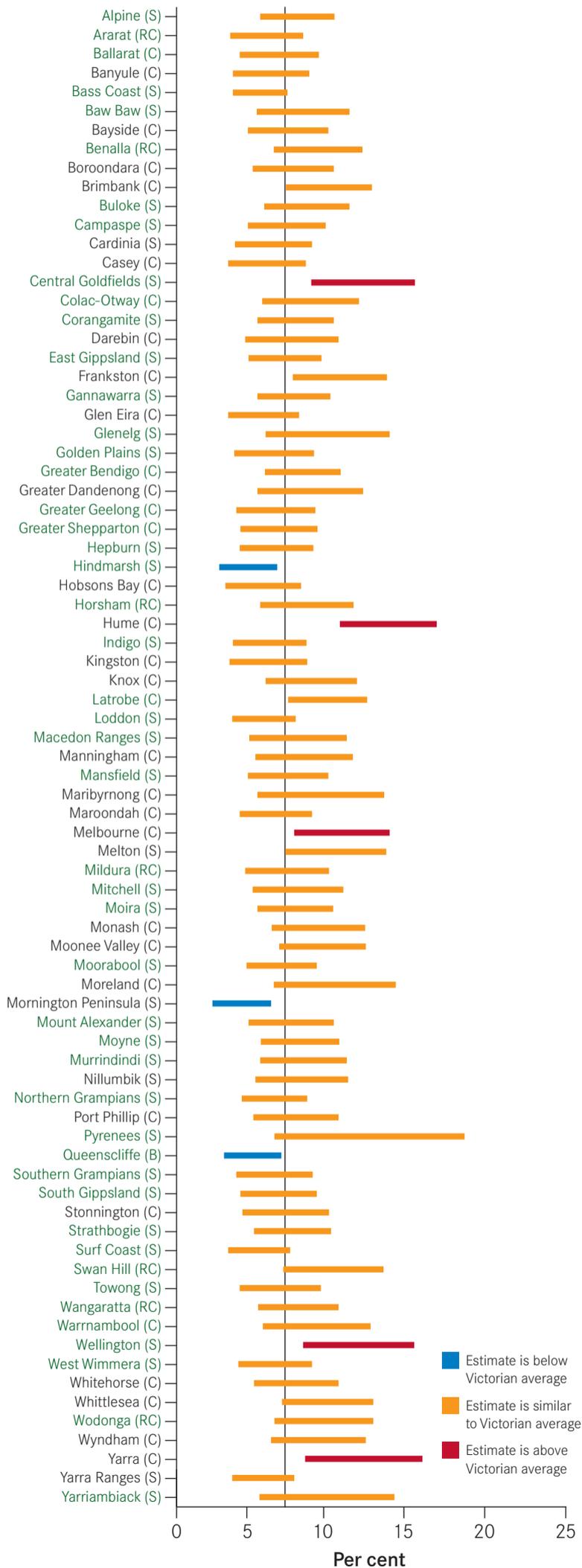
95% CI = 95 per cent confidence interval.

Data are 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 greater than 50 per cent and is not reported as it is unreliable for general use.

Figure 3.15: Prevalence of osteoporosis, by LGA, females, 2008



Metropolitan and rural LGAs are identified by colour as follows: metropolitan / rural.

LGA = local government area.

Data are age standardised to the 2006 Victorian population.

The line on the graph is the Victorian estimate, it does not show the 95% CI. See the relevant table for the 95% CI for Victoria (Total).

## Osteoarthritis

The prevalence of osteoarthritis was similar between most of the metropolitan and rural regions of Victoria (table 3.19). However, males in the Loddon Mallee region (14.0 per cent) had a higher prevalence of osteoarthritis, compared with all Victorian males (10.6 per cent).

**Table 3.19: Prevalence of arthritis, by type of arthritis, sex and Department of Health region, 2008**

Region	%	Osteoarthritis		%	Rheumatoid arthritis	
		Lower 95% CI	Upper 95% CI		Lower 95% CI	Upper 95% CI
<b>Males</b>						
Barwon-South Western	11.8	9.8	14.2	2.4	1.6	3.6
Eastern Metropolitan	8.8	7.6	10.3	2.9	2.2	3.9
Gippsland	10.5	8.6	12.6	3.7	2.4	5.5
Grampians	12.1	10.4	14.2	3.5	2.6	4.7
Hume	12.6	11.0	14.4	4.1	3.2	5.3
Loddon Mallee	14.0	12.0	16.3	4.7	3.5	6.3
North and West Metropolitan	10.1	8.9	11.4	4.0	3.3	5.0
Southern Metropolitan	10.3	9.0	11.8	2.3	1.7	3.3
<b>Metropolitan</b>	<b>9.9</b>	<b>9.1</b>	<b>10.7</b>	<b>3.1</b>	<b>2.7</b>	<b>3.6</b>
<b>Rural</b>	<b>12.2</b>	<b>11.3</b>	<b>13.2</b>	<b>3.6</b>	<b>3.1</b>	<b>4.2</b>
<b>Total</b>	<b>10.6</b>	<b>10.0</b>	<b>11.2</b>	<b>3.2</b>	<b>2.9</b>	<b>3.6</b>
<b>Females</b>						
Barwon-South Western	14.9	13.0	17.0	3.9	2.6	5.9
Eastern Metropolitan	16.8	15.3	18.3	3.1	2.5	4.0
Gippsland	17.1	15.4	18.8	5.1	4.1	6.2
Grampians	18.2	16.6	19.9	4.5	3.6	5.7
Hume	16.7	15.5	18.0	4.9	4.0	6.0
Loddon Mallee	17.7	16.0	19.4	5.0	4.0	6.4
North and West Metropolitan	16.0	14.9	17.1	5.3	4.6	6.2
Southern Metropolitan	16.6	15.3	18.0	3.6	2.9	4.5
<b>Metropolitan</b>	<b>16.4</b>	<b>15.6</b>	<b>17.1</b>	<b>4.1</b>	<b>3.7</b>	<b>4.6</b>
<b>Rural</b>	<b>16.8</b>	<b>16.0</b>	<b>17.6</b>	<b>4.6</b>	<b>4.1</b>	<b>5.3</b>
<b>Total</b>	<b>16.4</b>	<b>15.9</b>	<b>17.0</b>	<b>4.2</b>	<b>3.9</b>	<b>4.6</b>
<b>Persons</b>						
Barwon-South Western	13.5	12.1	15.1	3.0	2.2	4.1
Eastern Metropolitan	13.0	12.0	14.1	2.9	2.4	3.6
Gippsland	13.8	12.5	15.2	4.0	3.2	5.0
Grampians	15.3	14.0	16.6	3.7	3.1	4.5
Hume	14.7	13.7	15.8	4.3	3.7	5.1
Loddon Mallee	15.9	14.6	17.3	4.7	3.8	5.7
North and West Metropolitan	13.2	12.4	14.1	4.5	3.9	5.1
Southern Metropolitan	13.7	12.7	14.7	2.8	2.3	3.4
<b>Metropolitan</b>	<b>13.3</b>	<b>12.8</b>	<b>13.9</b>	<b>3.4</b>	<b>3.1</b>	<b>3.8</b>
<b>Rural</b>	<b>14.6</b>	<b>14.0</b>	<b>15.2</b>	<b>3.9</b>	<b>3.5</b>	<b>4.3</b>
<b>Total</b>	<b>13.7</b>	<b>13.2</b>	<b>14.1</b>	<b>3.6</b>	<b>3.3</b>	<b>3.8</b>

Metropolitan and rural regions are identified by colour as follows: metropolitan / rural.

95% CI = 95 per cent confidence interval.

Data are 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.

Males in the LGAs of Glenelg (20.7 per cent), Central Goldfields (19.3 per cent), Macedon Ranges (19.2 per cent), Moira (16.3 per cent), Murrindindi (16.3 per cent), Buloke (16.2 per cent), Greater Bendigo (15.8 per cent), Yarriambiack (15.5 per cent), Gannawarra (15.4 per cent), Casey (15.4 per cent) and Strathbogie (15.2 per cent), had a higher prevalence of doctor diagnosed osteoarthritis compared with all Victorian males (10.6 per cent), while males in the LGAs of Manningham (5.7 per cent) and Port Phillip (4.5 per cent) had a lower prevalence of the disease (table 3.20 and figure 3.16).

Females in the LGAs of Murrindindi (24.1 per cent), Pyrenees (23.2 per cent), Greater Bendigo (22.5 per cent), Strathbogie (21.9 per cent), Central Goldfields (21.7 per cent) and Mitchell (20.6 per cent), had a higher prevalence of doctor diagnosed osteoarthritis compared with all Victorian females (16.4 per cent). There were no LGAs where females had a lower prevalence of osteoarthritis compared with all Victorian females (table 3.20 and figure 3.17).

Table 3.20: Prevalence of osteoarthritis, by sex and LGA, 2008

LGA	Males			Females			Persons		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Alpine (S)	8.6	5.9	12.4	15.3	12.3	18.8	12.2	10.0	14.8
Ararat (RC)	14.4	10.2	19.9	20.8	15.1	27.8	15.9	12.5	20.0
Ballarat (C)	11.9	8.3	16.8	20.0	16.8	23.7	16.0	13.5	18.8
Banyule (C)	8.6*	5.2	13.9	18.4	14.9	22.5	13.7	11.0	17.0
Bass Coast (S)	10.0	7.0	14.0	17.4	14.0	21.4	13.5	11.1	16.4
Baw Baw (S)	8.7	5.7	12.8	13.3	10.4	17.0	11.0	8.8	13.6
Bayside (C)	8.5	5.9	12.2	15.2	12.7	18.1	12.0	10.0	14.3
Benalla (RC)	11.7	8.1	16.5	14.3	11.5	17.6	13.0	10.6	15.8
Boroondara (C)	8.0	5.4	11.8	15.0	12.0	18.6	11.7	9.6	14.3
Brimbank (C)	10.5	6.9	15.7	16.1	12.6	20.3	14.0	11.1	17.4
Buloke (S)	16.2	12.0	21.5	16.5	12.9	20.8	17.1	13.8	20.9
Campaspe (S)	11.9	8.3	16.8	14.6	11.3	18.7	13.2	10.6	16.2
Cardinia (S)	8.4	5.6	12.4	17.7	14.1	22.1	13.5	10.9	16.5
Casey (C)	15.4	11.2	20.7	20.0	16.1	24.7	18.4	15.3	21.9
Central Goldfields (S)	19.3	13.3	27.2	21.7	17.8	26.1	19.8	16.0	24.2
Colac-Otway (S)	14.4	9.7	20.8	14.1	11.0	17.8	14.0	11.1	17.6
Corangamite (S)	12.5	8.4	18.1	16.2	13.2	19.7	14.3	11.7	17.5
Darebin (C)	15.3	10.8	21.3	13.4	10.5	16.8	14.3	11.4	17.8
East Gippsland (S)	7.8	5.0	11.9	16.4	13.3	20.0	12.0	9.7	14.7
Frankston (C)	9.5	6.4	13.9	19.2	15.5	23.6	15.2	12.4	18.4
Gannawarra (S)	15.4	11.6	20.1	17.4	13.7	21.8	16.0	13.2	19.2
Glen Eira (C)	8.2	5.3	12.4	12.8	9.7	16.7	10.8	8.5	13.7
Glenelg (S)	20.7	15.3	27.3	20.7	16.7	25.4	20.8	17.2	25.0
Golden Plains (S)	12.0	8.2	17.2	14.1	11.1	17.7	12.6	10.1	15.7
Greater Bendigo (C)	15.8	11.8	20.9	22.5	18.6	26.9	18.9	15.9	22.2
Greater Dandenong (C)	12.9	9.0	18.0	16.6	12.5	21.7	15.2	12.4	18.4
Greater Geelong (C)	11.0	7.8	15.2	14.4	11.4	18.1	12.9	10.6	15.6
Greater Shepparton (C)	9.7	6.4	14.5	14.5	11.5	18.1	12.2	9.8	15.1
Hepburn (S)	9.8	6.8	13.9	17.7	14.4	21.7	14.3	11.8	17.2
Hindmarsh (S)	10.4	6.9	15.5	14.1	10.9	18.1	12.1	9.5	15.2
Hobsons Bay (C)	9.0	6.7	12.0	14.7	11.2	19.0	12.0	9.6	14.9
Horsham (RC)	13.1	9.2	18.2	17.9	14.3	22.2	15.5	12.7	18.8
Hume (C)	14.2	10.9	18.3	12.9	9.6	17.1	13.4	10.5	16.9
Indigo (S)	10.9	7.7	15.2	16.2	13.1	19.9	13.3	10.8	16.1
Kingston (C)	8.2	5.3	12.4	17.6	12.9	23.5	13.2	10.4	16.6
Knox (C)	9.0	5.9	13.3	15.6	12.4	19.4	12.5	10.1	15.3
Latrobe (C)	14.1	9.5	20.6	18.5	14.9	22.8	16.1	13.1	19.8
Loddon (S)	15.1	10.7	20.8	15.4	12.2	19.3	14.7	12.0	17.9
Macedon Ranges (S)	19.2	12.9	27.5	18.5	15.0	22.6	18.6	14.2	24.1
Manningham (C)	5.7	3.6	9.0	17.7	14.2	21.8	12.3	9.9	15.0

Metropolitan and rural LGAs are identified by colour as follows: metropolitan / rural.

95% CI = 95 per cent confidence interval.

LGA = local government area.

Data are 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.

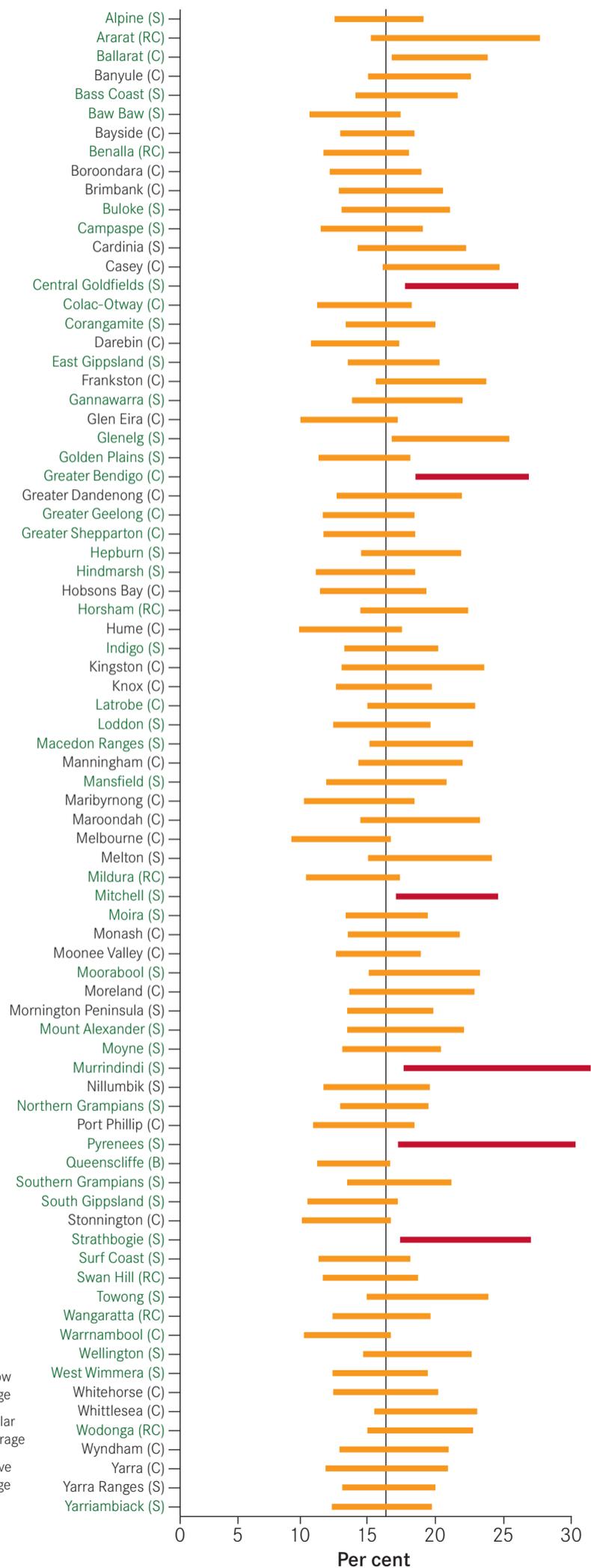
Table 3.20: Prevalence of osteoarthritis, by sex and LGA, 2008 (continued)

LGA	Males			Females			Persons		
	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI	%	Lower 95% CI	Upper 95% CI
Mansfield (S)	13.4	9.6	18.4	15.6	11.7	20.6	13.8	10.8	17.4
Maribyrnong (C)	6.1*	3.6	10.0	13.5	10.0	18.0	10.0	7.6	13.0
Maroondah (C)	9.8	6.4	14.8	18.4	14.4	23.2	14.2	11.5	17.4
Melbourne (C)	9.7	6.2	14.9	12.2	9.0	16.2	10.7	8.0	14.0
Melton (S)	13.0	9.3	17.8	19.1	14.9	24.0	16.0	12.9	19.6
Mildura (RC)	11.4	7.8	16.4	13.2	10.1	16.9	12.8	10.3	15.9
Mitchell (S)	12.7	9.0	17.7	20.6	17.1	24.6	16.1	13.2	19.6
Moira (S)	16.3	11.5	22.7	15.9	13.2	19.1	16.2	13.4	19.5
Monash (C)	7.7	5.7	10.3	17.1	13.4	21.6	12.7	10.2	15.8
Moonee Valley (C)	8.6	5.4	13.6	15.2	12.4	18.5	12.4	9.9	15.4
Moorabool (S)	10.1	6.8	14.8	18.7	15.0	23.1	14.9	12.1	18.3
Moreland (C)	7.3	4.6	11.2	17.6	13.5	22.7	12.7	10.1	15.9
Mornington Peninsula (S)	10.6	7.4	15.1	16.2	13.3	19.5	13.9	11.6	16.7
Mount Alexander (S)	10.2	7.6	13.6	17.2	13.3	21.9	13.9	11.4	16.7
Moyne (S)	13.3	10.2	17.2	16.2	12.9	20.1	14.6	12.3	17.3
Murrindindi (S)	16.3	11.9	21.9	24.1	17.7	32.0	20.0	15.4	25.5
Nilumbik (S)	10.8	7.8	15.0	14.9	11.5	19.2	13.3	10.8	16.3
Northern Grampians (S)	13.7	9.3	19.7	15.7	12.8	19.1	15.3	12.4	18.8
Port Phillip (C)	4.5*	2.5	8.1	14.0	10.7	18.1	9.3	7.1	12.1
Pyrenees (S)	14.7	10.5	20.2	23.2	17.3	30.6	18.4	13.5	24.7
Queenscliffe (B)	9.3	6.4	13.2	13.4	11.0	16.2	11.7	9.6	14.0
Southern Grampians (S)	11.9	8.1	17.0	16.8	13.3	20.9	14.4	11.7	17.6
South Gippsland (S)	10.8	7.2	16.0	13.1	10.2	16.7	12.3	9.8	15.4
Stonnington (C)	12.2	8.6	17.0	12.7	9.8	16.2	12.7	10.2	15.8
Strathbogie (S)	15.2	11.2	20.2	21.9	17.4	27.1	18.1	14.9	21.9
Surf Coast (S)	10.8	7.3	15.6	14.1	11.1	17.8	12.7	10.3	15.7
Swan Hill (RC)	9.3	6.3	13.5	14.5	11.4	18.3	12.1	9.8	14.9
Towong (S)	11.4	8.2	15.6	18.9	14.8	23.8	14.6	11.9	17.7
Wangaratta (RC)	10.7	6.7	16.7	15.4	12.2	19.3	13.4	10.4	17.1
Warrnambool (C)	8.2	5.3	12.3	12.8	10.0	16.2	10.6	8.5	13.1
Wellington (S)	11.6	8.2	16.1	18.2	14.5	22.5	14.5	11.9	17.7
West Wimmera (S)	13.1	9.0	18.7	15.3	12.1	19.1	14.2	11.4	17.5
Whitehorse (C)	7.6	4.9	11.5	15.7	12.2	19.9	12.1	9.8	14.9
Whittlesea (C)	11.0	7.4	16.1	18.9	15.4	22.9	14.9	12.3	18.0
Wodonga (RC)	12.4	8.8	17.2	18.4	14.9	22.6	15.7	12.8	19.1
Wyndham (C)	10.0	6.6	14.9	16.3	12.7	20.7	13.2	10.5	16.4
Yarra (C)	11.3	7.5	16.7	15.6	11.6	20.6	13.4	10.4	17.0
Yarra Ranges (S)	12.4	8.7	17.5	16.0	12.9	19.7	14.3	11.7	17.2
Yarriambiack (S)	15.5	11.5	20.5	15.4	12.1	19.4	14.7	12.1	17.8
<b>Total</b>	<b>10.6</b>	<b>10.0</b>	<b>11.2</b>	<b>16.4</b>	<b>15.9</b>	<b>17.0</b>	<b>13.7</b>	<b>13.2</b>	<b>14.1</b>

Figure 3.16: Prevalence of osteoarthritis, by LGA, males, 2008



Figure 3.17: Prevalence of osteoarthritis, by LGA, females, 2008



Metropolitan and rural LGAs are identified by colour as follows: metropolitan / rural.

LGA = local government area.

Data are age standardised to the 2006 Victorian population.

The line on the graph is the Victorian estimate, it does not show the 95% CI. See the relevant table for the 95% CI for Victoria (Total).

## Rheumatoid arthritis

Persons in the Loddon Mallee (4.7 per cent) and North and West Metropolitan (4.5 per cent) regions had a higher prevalence of rheumatoid arthritis compared with the state average (3.6 per cent) (table 3.19). The prevalence of rheumatoid arthritis was too low to allow for reliable analysis at the LGA level.

## References

ARC (Arthritis Research Campaign) 2009, *Osteoarthritis and Obesity: A report by the Arthritis Research Campaign*, ARC, Chesterfield, United Kingdom.

Burstrom, B & Fredlund, P 2001, 'Self-rated health: Is it as good a predictor of subsequent mortality among adults in lower as well as in higher social classes?', *Journal of Epidemiology and Community Health*, vol. 55, pp. 836-40.

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

Idler, E & Benyamini, Y 1997, 'Self-rated health and mortality: a review of twenty-seven community studies', *Journal of Health and Social Behaviour*, vol. 38, pp. 21-37.

Miilunpalo, S, Vuori, I & Oja, P 1997, 'Self-rated health as a health measure: the predictive value of self-reported health status on the use of physician services and on mortality in the working age population', *Journal of Clinical Epidemiology*, vol. 50, no. 5, pp. 517-28.

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.

Symmons, D & Harrison, B 2000, 'Early inflammatory polyarthritis: results from the Norfolk Arthritis Register with a review of the literature. I. Risk factors from the development of inflammatory polyarthritis and rheumatoid arthritis', *Rheumatology*, vol. 39, pp. 385-843.

