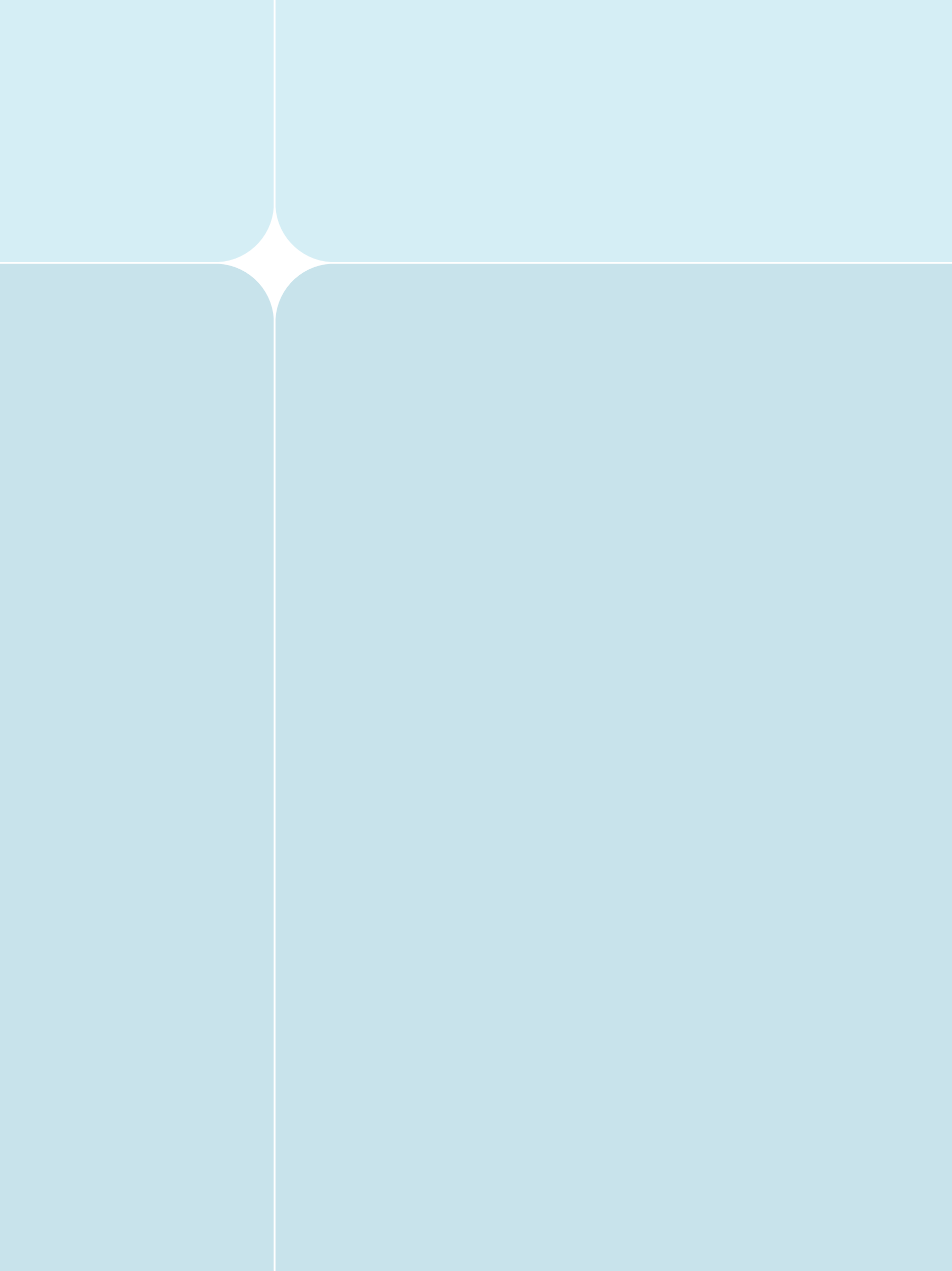


6. Eye health

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 QUEENSLIFFE SOUTHERN GRAMPIANS SOUTH GIPPSLAND 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 QUEENSLIFFE SOUTHERN GRAMPIANS SOUTH GIPPSLAND 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 QUEENSLIFFE SOUTHERN GRAMPIANS SOUTH GIPPSLAND STONNINGTON STRATHBOGIE SURF COAST SWAN HILL TOWONG WANGARATTA WARRNAMBOOL WELLINGTON WEST WIMMERA WHITEHORSE WHITTLESEA WODONGA WYNDHAM YARRA YARRA RANGES YARRIAMBIACK





6. Eye health

Introduction

Good eyesight is an important part of wellbeing and a significant factor in retaining independence and quality of life as we get older. Eye health is also an important issue for Victoria's ageing population. A report by Access Economics estimated that in 2009 there were almost 145,370 people aged 40 or over with vision loss in Victoria, accounting for more than 5.9 per cent of the population in this age group. Of these, around 16,940 people were blind (Access Economics 2010).

Without appropriate action, it is projected that the number of people with vision loss aged 40 years or over in Victoria will rise to more than 201,000 and those who are blind will rise to 26,400 by 2020 (Access Economics 2010).

Eighty per cent of vision loss and blindness is associated with five main eye conditions: age-related macular degeneration, cataract, diabetic retinopathy, glaucoma and uncorrected refractive error (Access Economics 2010). Approximately 60 per cent of this vision loss is related to uncorrected refractive error, which can usually be corrected through glasses prescribed by an eye health professional. The good news is that 75 per cent of vision loss is preventable or treatable if detected early (Access Economics 2010).

Many eye conditions have no symptoms in their early stages. Regular eye tests with an eye health professional are important to ensure early detection and treatment to prevent avoidable sight loss.

People over the age of 40, smokers, people with diabetes, those with a family history of eye disease and Aboriginal and/or Torres Strait Islander people are more at risk of developing eye conditions that can lead to vision loss. Regular eye tests are particularly important for these at-risk groups.

In 2011–12 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.

Survey results

Sun-protective behaviours

- Overall, 39.3 per cent of people usually wear both sunglasses and a hat when they go out in the sun, while 15.6 per cent wear neither. A higher proportion of men wear both a hat and sunglasses compared with their female counterparts; however, men were also more likely than women not to wear either.
- The proportion of women and Victorian adults overall who usually wear a hat and sunglasses declined between 2003 and 2011–12, while no such decline was observed in men. However, the proportion of men and women who did not engage in sun protection for eye health remained constant between 2003 and 2011–12.

- A higher proportion of men and women living in rural Victoria wore both a hat and sunglasses when exposed to sunlight compared with their metropolitan counterparts.
- There were 26 LGAs, all located in rural Victoria, where a higher proportion of adults engaged in appropriate eye health sun protection behaviours (wearing both a hat and sunglasses) compared with all Victorian adults – Alpine (S), Ararat (RC), Ballarat (C), Bass Coast (S), Benalla (RC), Buloke (S), Campaspe (S), Corangamite (S), Gannawarra (S), Glenelg (S), Hindmarsh (S), Horsham (RC), Indigo (S), Macedon Ranges (S), Mansfield (S), Mildura (RC), Mitchell (S), Moira (S), Moyne (S), Murrindindi (S), Queenscliffe (B), Strathbogie (S), Surf Coast (S), Towong (S), West Wimmera (S) and Yarriambiack (S).

Change in vision

- In 2011–12, 42.1 per cent of Victorian adults indicated they had noticed significant changes in their vision in the previous 12 months; this was higher in women compared with men and increased with age.
- The proportion of adults who had noticed a change in their vision in the previous 12 months was similar between the metropolitan and rural areas of the state.

Contact with an eye health professional

- The majority of Victorians (79.6 per cent) indicated that they had ever seen an eye health professional (optician, optometrist, ophthalmologist or eye clinic); this was higher among women compared with men and increased with age.
- There was no difference in the proportion of men and women who had ever seen an eye health professional between those who lived in rural compared with metropolitan Victoria.
- A higher proportion of people who had never seen an eye health professional lived in the LGAs of Campaspe (S), Mitchell (S) and Queenscliffe (B) compared with all Victorian adults.

Most recent visit to an eye health professional

- Of those who had ever visited an eye health professional, 29.3 per cent had done so less than six months preceding the survey. A further 25.0 per cent reported visiting an eye health professional between six months and one year prior to the survey, 19.7 per cent more than one year but less than two years prior, 15.1 per cent more than two years but less than five years prior, and 10.6 per cent five years or more prior.
- A higher proportion of women reported visiting an eye health professional between six months and one year prior to the survey compared with their male counterparts. A lower proportion of adults living in rural Victoria had last visited an eye health professional in the previous six months compared with their metropolitan counterparts.
- There were 10 LGAs where a lower proportion of people reported having visited an eye health professional less than six months prior to the survey compared with all Victorian adults – East Gippsland (S), Greater Bendigo (C), Hindmarsh (S), Loddon (S), Mansfield (S), Mount Alexander (S), Pyrenees (S), South Gippsland (S), Surf Coast (S) and Towong (S).

Selected eye diseases

- Overall, 8.9 per cent of Victorian adults reported having ever had a cataract, 2.2 per cent reported glaucoma, 0.5 per cent reported diabetic retinopathy, and 1.8 per cent reported macular degeneration.
- The prevalence of cataract was higher in women compared with men, but there was no difference between men and women for glaucoma, diabetic retinopathy or macular degeneration. The prevalence of all the selected eye diseases increased with age.
- The prevalence of cataract was higher among women and adults who lived in metropolitan Victoria compared with their rural counterparts. The prevalence of glaucoma, diabetic retinopathy or macular degeneration did not differ between the metropolitan and rural areas of the state.

Sun-protective behaviours

Cataracts are a form of eye damage in which a loss of transparency in the lens of the eye clouds the vision of the eye. If left untreated, cataracts can lead to blindness. Research has shown that cumulative exposure to ultraviolet (UV) radiation increases the risk of developing cataracts as well as pterygium (tissue growth that can block vision), skin cancer around the eyes and degeneration of the macula (the part of the retina where visual perception is most acute). Eye protection when out in sunlight is strongly recommended by health professionals as a means of reducing the risk of the aforementioned adverse outcomes. Such protection should include UV-blocking sunglasses and a hat.

Survey respondents were asked 'When you go out in the sun do you usually wear a hat and do you usually wear sunglasses?'. Table 6.1 shows the proportion of Victorian adults who wore appropriate sun protection, by age group and sex. Overall, 39.3 per cent of people wore both sunglasses and a hat, while 15.6 per cent wore neither. A significantly higher proportion of men wore both a hat and sunglasses compared with their female counterparts. However, men were also more likely than women not to wear either (17.9 per cent versus 13.3 per cent). Women were more likely to wear sunglasses than men (80.3 per cent versus 66.6 per cent), while men were more likely to wear hats than women (59.1 per cent versus 40.9 per cent).

There was an age-related pattern, where significantly lower proportions of men and women aged 18–34 years wore a hat and sunglasses compared with all Victorian men and women, while significantly higher proportions of men and women aged 35–65 years or over wore a hat and sunglasses. Men and women aged 18–24 years were a particularly at-risk group, with 41.5 per cent of men and 20.2 per cent of women choosing not to wear either a hat or sunglasses.

Table 6.1: Sun-protective behaviours, by age group and sex, Victoria, 2011–12

Age group (years)	Hat and sunglasses			Neither			Hat only			Sunglasses only		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL		LL	UL
Males												
18–24	20.1	16.0	25.1	41.5	35.9	47.2	28.7	23.9	34.0	49.9	44.1	55.6
25–34	35.4	30.8	40.3	22.1	18.2	26.6	45.6	40.7	50.7	67.5	62.5	72.1
35–44	53.9	50.7	57.1	10.4	8.5	12.6	65.9	62.8	68.9	77.4	74.6	80.0
45–54	52.2	49.4	54.9	12.4	10.6	14.4	65.9	63.2	68.6	73.4	70.8	75.8
55–64	50.5	47.8	53.1	12.6	10.9	14.4	69.6	67.1	72.0	67.8	65.3	70.2
65+	48.5	46.4	50.6	13.0	11.5	14.5	74.6	72.7	76.5	60.7	58.7	62.8
Total	43.9	42.5	45.4	17.9	16.7	19.3	59.1	57.6	60.6	66.6	65.1	68.1
Females												
18–24	14.6	11.6	18.3	20.2	16.1	25.0	19.8	16.1	24.2	74.0	68.7	78.6
25–34	29.4	26.1	33.0	13.8	11.4	16.7	33.9	30.4	37.5	81.6	78.4	84.4
35–44	40.5	38.2	42.9	9.7	8.3	11.2	45.3	42.9	47.7	85.4	83.6	87.0
45–54	40.1	37.9	42.3	10.0	8.7	11.4	45.3	43.1	47.5	84.7	83.1	86.3
55–64	42.1	40.0	44.3	11.4	10.1	12.7	49.4	47.2	51.6	81.0	79.3	82.6
65+	40.0	38.3	41.7	14.9	13.7	16.3	49.3	47.5	51.0	75.3	73.7	76.7
Total	34.8	33.7	35.9	13.3	12.3	14.2	40.9	39.7	42.0	80.3	79.2	81.3
Persons												
18–24	17.5	14.8	20.5	31.0	27.4	34.9	24.4	21.2	27.8	61.6	57.7	65.4
25–34	32.4	29.6	35.4	18.0	15.6	20.6	39.8	36.7	42.9	74.5	71.5	77.3
35–44	47.1	45.1	49.1	10.0	8.8	11.3	55.5	53.5	57.4	81.5	79.8	83.0
45–54	46.0	44.2	47.8	11.1	10.0	12.4	55.5	53.7	57.2	79.2	77.6	80.6
55–64	46.2	44.5	47.9	11.9	10.9	13.1	59.3	57.6	60.9	74.6	73.1	76.0
65+	43.9	42.5	45.2	14.0	13.1	15.0	60.8	59.4	62.1	68.7	67.4	69.9
Total	39.3	38.4	40.2	15.6	14.9	16.5	49.7	48.8	50.7	73.6	72.6	74.5

Data are age-specific estimates, except for 'Total', which represent the estimates for Victoria and were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

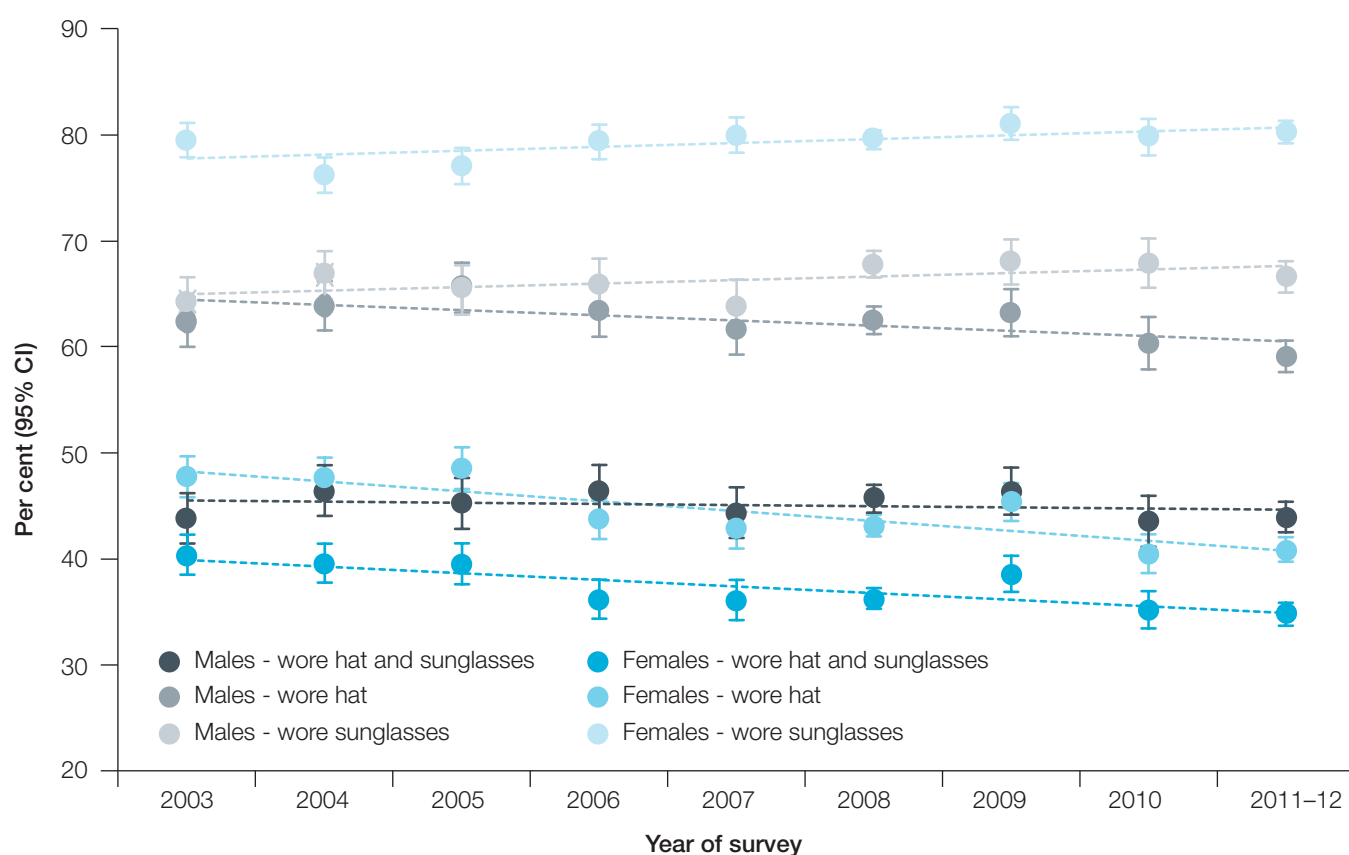
The trend over time of the age-adjusted prevalence of sun-protective behaviours is presented in Figure 6.1. The proportion of women and Victorians adults overall who usually wear a hat and sunglasses significantly declined between 2003 and 2011–12, while no such decline was observed in men. However, the proportions of men and women who did not engage in sun protection remained constant between 2003 and 2011–12.

The explanation for these seemingly paradoxical findings is that the proportion of both men and women who wore a hat (irrespective of whether they also wore sunglasses) also significantly declined during this period. By contrast while there were no significant changes in men and women who

wore sunglasses, overall there was a significant increase in the proportion of Victorian adults who wore sunglasses. Given that there is a significant decline in the proportion of men wearing a hat, it may be that in the near future this will manifest itself in an overall significant decline in men wearing both a hat and sunglasses, as observed in women.

These findings may suggest that public health messages about the advantages of wearing a hat are slowly waning and may point to a call for action, particularly since wearing a hat not only provides eye protection but also protection from the sun for the skin on the face and neck.

Figure 6.1: Sun-protective behaviours from 2003 to 2011–12, Victoria



Data were age-standardised to the 2011 Victorian population.
95% CI = 95 per cent confidence interval.
Ordinary least squares regression was used to test for trends over time.

Table 6.2 shows the proportion of Victorian adults who wore appropriate sun protection, by Department of Health region and sex. Significantly higher proportions of men and women who lived in rural Victoria wore both a hat and sunglasses when exposed to sunlight compared with their metropolitan counterparts. Moreover this was reflected in every rural Department of Health region for men. There were significantly higher proportions of women who lived in Grampians Region and Hume Region who wore both a hat and sunglasses compared with all Victorian women.

A significantly higher proportion of men and adults, but not women, who lived in North & West Metropolitan Region did not protect their eyes from the sun.

Table 6.2: Sun-protective behaviours, by Department of Health region and sex, Victoria, 2011–12

Region	Hat and sunglasses			Neither		
	%	95% CI		%	95% CI	
		LL	UL		LL	UL
Males						
Eastern Metropolitan	40.5	37.1	43.9	18.9	16.0	22.3
North & West Metropolitan	38.9	36.5	41.3	22.6	20.3	25.1
Southern Metropolitan	43.0	40.0	46.0	17.3	14.8	20.0
Metropolitan males	40.8	39.2	42.5	19.9	18.4	21.5
Barwon-South Western	56.9	48.9	64.6	12.0	7.8	18.0
Gippsland	51.1	46.8	55.4	11.3	8.4	15.0
Grampians	52.2	47.2	57.1	13.9	10.6	18.0
Hume	56.7	52.2	61.0	10.1	7.6	13.4
Loddon Mallee	55.7	50.7	60.5	9.8	7.2	13.2
Rural males	54.6	51.6	57.6	11.2	9.5	13.1
Total	43.9	42.5	45.4	17.9	16.7	19.3
Females						
Eastern Metropolitan	35.7	32.3	39.1	14.2	12.0	16.8
North & West Metropolitan	31.6	29.9	33.4	15.6	14.0	17.3
Southern Metropolitan	34.8	32.5	37.2	11.7	9.8	13.8
Metropolitan females	33.6	32.3	34.9	14.0	12.9	15.2
Barwon-South Western	37.1	32.4	42.1	10.3	7.6	13.9
Gippsland	36.9	33.8	40.1	12.2	10.1	14.7
Grampians	42.1	38.1	46.2	10.7	8.7	13.2
Hume	42.0	38.9	45.1	9.6	8.1	11.3
Loddon Mallee	37.5	34.0	41.2	10.4	8.5	12.7
Rural females	38.6	36.8	40.5	10.7	9.5	11.9
Total	34.8	33.7	35.9	13.3	12.3	14.2
Persons						
Eastern Metropolitan	37.9	35.6	40.3	17.0	15.0	19.2
North & West Metropolitan	35.1	33.7	36.6	19.2	17.7	20.7
Southern Metropolitan	38.8	36.9	40.7	14.4	12.8	16.1
Metropolitan persons	37.1	36.1	38.2	17.0	16.1	18.0
Barwon-South Western	46.3	41.2	51.5	11.0	8.5	14.1
Gippsland	43.6	40.9	46.3	11.9	10.0	14.1
Grampians	47.2	43.9	50.5	12.3	10.1	15.0
Hume	49.2	46.5	52.0	9.9	8.3	11.7
Loddon Mallee	46.0	42.7	49.3	10.0	8.3	12.0
Rural persons	46.4	44.6	48.3	10.9	9.9	12.1
Total	39.3	38.4	40.2	15.6	14.9	16.5

Data were age-standardised to the 2011 Victorian population.

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

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

Eye health

Table 6.3 shows the proportion of Victorian adults who did or did not wear appropriate sun protection, by LGA. There were significantly higher proportions of adult Victorians who did not wear any sun protection in the LGAs of Darebin (C), Greater Dandenong (C) and Melbourne (C) compared with all Victorian adults.

However, there were significantly higher proportions of people who engaged in appropriate sun protection by wearing both a hat and sunglasses in the LGAs of Alpine (S), Ararat (RC), Ballarat (C), Bass Coast (S), Benalla (RC), Buloke (S), Campaspe (S), Corangamite (S), Gannawarra (S), Glenelg (S), Hindmarsh (S), Horsham (RC), Indigo (S), Macedon Ranges (S), Mansfield (S), Mildura (RC), Mitchell (S), Moira (S), Moyne (S), Murrindindi (S), Queenscliffe (B), Strathbogie (S), Surf Coast (S), Towong (S), West Wimmera (S), and Yarriambiack (S) compared with all Victorian adults. All of these LGAs are located in rural Victoria.

Figure 6.2 shows the proportion of Victorian adults who engaged in adequate sun protection by usually wearing both a hat and sunglasses when out in the sun, by LGA.

Table 6.3: Sun-protective behaviours, by LGA, Victoria, 2011–12

LGA	Wore both a hat and sunglasses			Wore neither		
	%	95% CI		%	95% CI	
		LL	UL		LL	UL
Alpine (S)	49.9	40.1	59.7	10.6*	4.8	21.9
Ararat (RC)	48.7	42.3	55.0	13.7	8.4	21.6
Ballarat (C)	46.9	40.6	53.4	13.3	9.0	19.3
Banyule (C)	38.6	33.1	44.5	11.5	7.4	17.5
Bass Coast (S)	51.8	44.0	59.5	12.7	8.3	19.0
Baw Baw (S)	44.3	38.0	50.8	11.5	7.9	16.5
Bayside (C)	43.4	35.9	51.2	13.2	8.2	20.6
Benalla (RC)	49.7	40.7	58.7	5.8	3.9	8.5
Boroondara (C)	35.7	29.4	42.6	21.2	15.8	28.0
Brimbank (C)	32.6	27.7	37.9	20.4	16.0	25.6
Buloke (S)	50.5	42.6	58.3	16.0	10.5	23.6
Campaspe (S)	53.3	46.3	60.2	11.9	7.7	18.0
Cardinia (S)	41.6	36.3	47.0	12.1	8.8	16.5
Casey (C)	38.1	32.9	43.6	14.7	10.7	20.0
Central Goldfields (S)	47.6	37.7	57.8	14.7	8.9	23.1
Colac-Otway (S)	42.0	35.3	49.0	16.4	11.1	23.5
Corangamite (S)	59.4	53.1	65.4	7.7	5.6	10.4
Darebin (C)	31.9	27.6	36.6	23.7	18.8	29.5
East Gippsland (S)	45.3	38.6	52.1	10.3	6.7	15.7
Frankston (C)	44.1	37.7	50.6	10.6	6.6	16.6
Gannawarra (S)	52.8	45.5	60.0	6.5*	3.7	11.0
Glen Eira (C)	38.6	32.7	44.7	13.7	9.5	19.3
Glenelg (S)	49.5	41.7	57.4	14.7*	8.6	24.0
Golden Plains (S)	45.7	39.1	52.3	15.2	9.8	22.9
Greater Bendigo (C)	44.6	37.2	52.3	8.2	5.4	12.4
Greater Dandenong (C)	34.6	29.6	40.1	23.2	18.8	28.3
Greater Geelong (C)	43.9	36.7	51.5	10.7	7.2	15.6
Greater Shepparton (C)	43.8	36.5	51.3	9.7	6.3	14.7
Hepburn (S)	45.9	37.3	54.7	19.3	12.0	29.5
Hindmarsh (S)	50.6	42.5	58.6	14.6	9.3	22.2
Hobsons Bay (C)	36.3	31.0	42.0	17.0	12.6	22.5
Horsham (RC)	56.1	48.6	63.3	7.0	5.1	9.7
Hume (C)	34.9	29.7	40.3	18.8	14.1	24.5
Indigo (S)	55.5	48.1	62.6	7.3	4.7	11.2
Kingston (C)	41.8	35.6	48.4	13.2	8.7	19.4
Knox (C)	38.7	33.2	44.5	13.4	9.7	18.2
Latrobe (C)	39.8	34.5	45.3	12.2	8.6	17.1
Loddon (S)	41.3	36.1	46.7	20.4	13.9	29.0
Macedon Ranges (S)	48.7	42.0	55.5	9.4	5.8	14.9
Manningham (C)	39.2	32.7	46.1	16.8	12.2	22.8
Mansfield (S)	57.2	49.1	64.9	9.6*	5.5	16.3
Maribyrnong (C)	29.6	25.3	34.2	21.3	16.2	27.4

Table 6.3: Sun-protective behaviours, by LGA, Victoria, 2011–12 (continued)

LGA	Wore both a hat and sunglasses			Wore neither		
	%	95% CI		%	95% CI	
		LL	UL		LL	UL
Maroondah (C)	37.4	32.0	43.1	17.1	12.6	22.9
Melbourne (C)	30.1	25.1	35.6	28.1	23.0	33.9
Melton (S)	36.8	31.7	42.2	18.1	13.9	23.2
Mildura (RC)	46.2	40.4	52.1	11.9	7.5	18.5
Mitchell (S)	51.2	44.3	58.0	10.3	6.7	15.6
Moira (S)	52.7	44.8	60.6	9.5	6.3	14.2
Monash (C)	35.1	29.8	40.7	18.7	13.8	24.7
Moonee Valley (C)	35.0	29.7	40.6	19.6	14.4	26.3
Moorabool (S)	36.6	30.8	42.9	13.7	9.9	18.5
Moreland (C)	36.3	30.9	42.0	15.4	11.6	20.1
Mornington Peninsula (S)	40.4	35.4	45.6	11.9	7.7	18.1
Mount Alexander (S)	48.0	39.8	56.3	7.4	5.0	10.8
Moyne (S)	48.8	41.1	56.6	8.2	5.6	11.8
Murrindindi (S)	52.0	43.3	60.5	9.6*	5.4	16.5
Nillumbik (S)	38.3	31.9	45.0	16.0	11.1	22.5
Northern Grampians (S)	45.8	37.4	54.4	7.3*	4.2	12.4
Port Phillip (C)	31.0	26.0	36.5	15.0	10.3	21.3
Pyrenees (S)	42.9	35.9	50.3	11.2*	6.4	18.7
Queenscliffe (B)	56.5	46.6	65.8	4.7*	2.5	8.7
South Gippsland (S)	38.6	32.5	45.1	13.1*	7.4	22.1
Southern Grampians (S)	45.9	37.7	54.3	9.1	5.5	14.7
Stonnington (C)	33.1	28.0	38.7	17.7	12.9	23.9
Strathbogie (S)	54.5	43.6	65.0	10.5*	5.6	18.9
Surf Coast (S)	49.1	42.0	56.2	15.0	9.0	23.9
Swan Hill (RC)	45.7	38.8	52.8	12.9	8.7	18.6
Towong (S)	51.5	44.5	58.5	11.4*	6.0	20.6
Wangaratta (RC)	43.9	37.7	50.3	9.3	5.8	14.6
Warrnambool (C)	44.3	38.4	50.4	11.6	8.1	16.2
Wellington (S)	43.6	38.1	49.3	13.0	8.6	19.3
West Wimmera (S)	53.4	46.9	59.9	10.0	6.4	15.2
Whitehorse (C)	34.3	29.3	39.7	19.1	13.9	25.7
Whittlesea (C)	38.8	33.3	44.5	19.8	15.5	25.1
Wodonga (RC)	45.3	39.3	51.4	10.5	6.9	15.6
Wyndham (C)	36.4	31.2	41.8	12.0	8.9	16.0
Yarra (C)	33.3	28.4	38.5	18.5	12.8	25.9
Yarra Ranges (S)	42.6	36.9	48.6	15.3	10.6	21.7
Yarriambiack (S)	48.6	41.9	55.5	11.6	7.1	18.6
Victoria	39.0	38.1	39.9	15.8	15.0	16.7

Data were age-standardised to the 2011 Victorian population, using 10-year age groups.

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

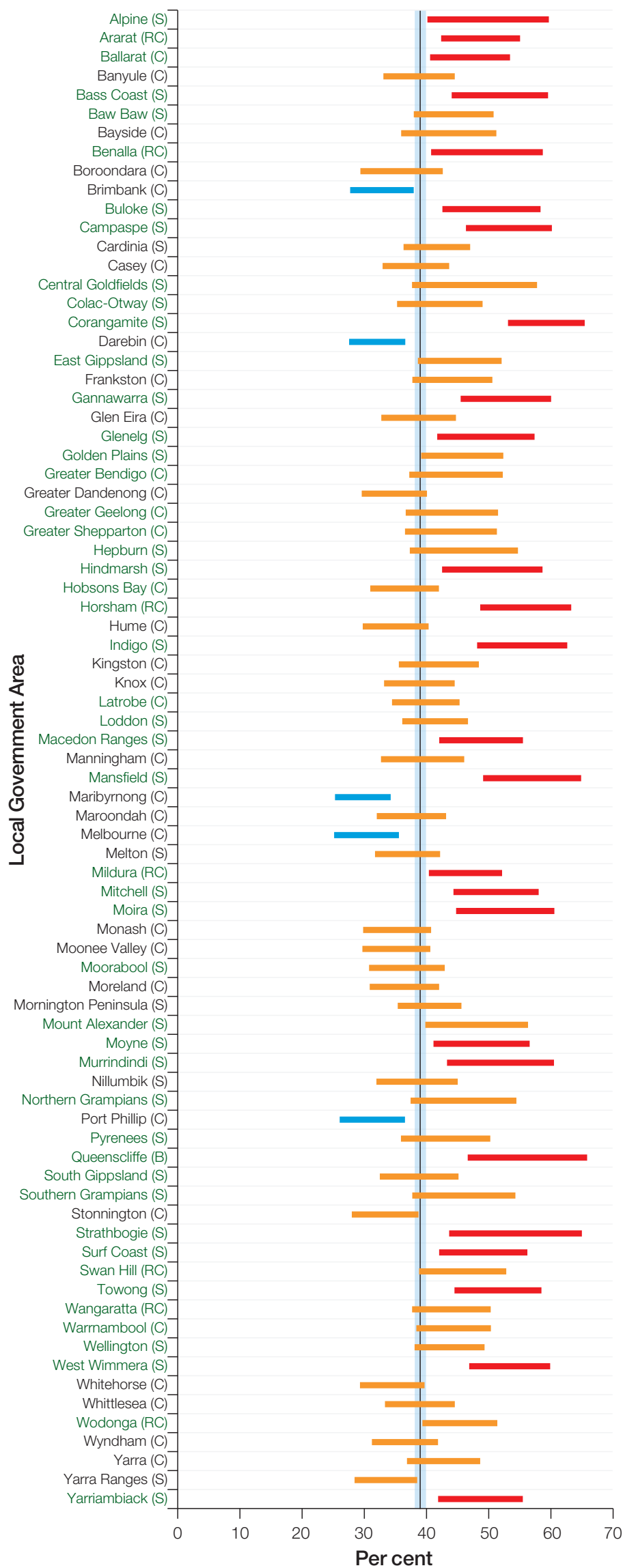
LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

LGA= Local government area; B = Borough; C = City; S = Shire; RC = Rural City.

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 6.2: Proportion of persons who wore both a hat and sunglasses, by LGA, Victoria, 2011–12



Data were age-standardised to the 2011 Victorian population using 10-year age groups.

The horizontal bars represent the 95% CI around the estimate for each LGA.

The vertical line on the graph is the Victorian estimate and the vertical column is the 95% CI around the estimate for Victoria.

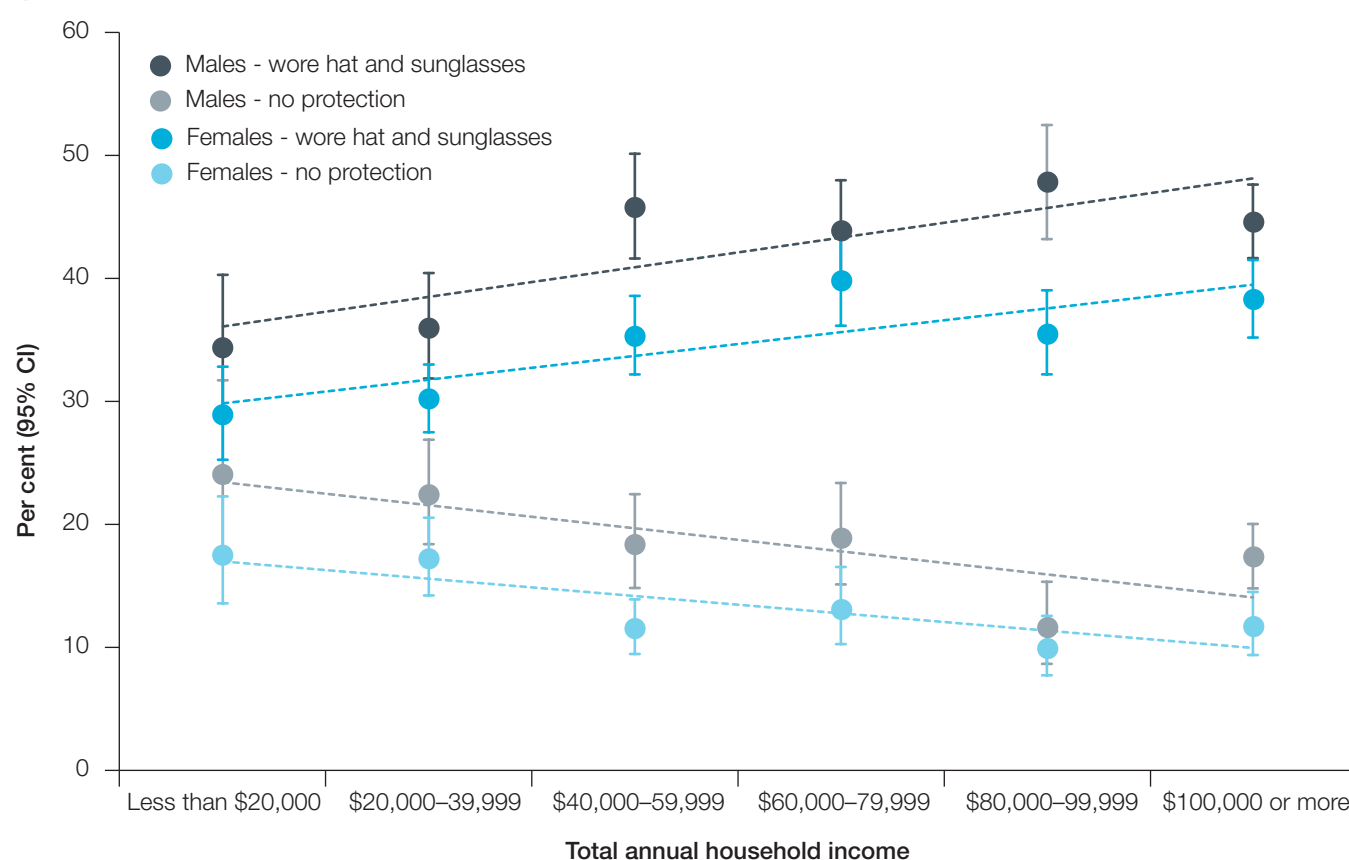
Metropolitan and rural LGAs are identified by colour as follows: metropolitan/rural.

95% CI = 95 per cent confidence interval; LGA= local government area; B = Borough; C = City; S = Shire; RC = Rural City.

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

The relationship was investigated between SES and the age-adjusted proportion of men and women who did or did not engage in adequate sun protection, using total annual household income as a measure of SES (Figure 6.3). The proportion of both men and women who wore a hat and sunglasses when out in the sun significantly increased with increasing total annual household income. By contrast the proportion of women who did not wear a hat or sunglasses when out in the sun significantly declined with increasing income, while there was no association with SES in men.

Figure 6.3: Proportion of men and women who did or did not engage in adequate protection from the sun, by total annual household income, Victoria, 2011–12



Data were age-standardised to the 2011 Victorian population.

95% CI = 95 per cent confidence interval.

Ordinary least squares regression was used to test for statistical significance.

Change in vision

Survey respondents were asked 'Have you noticed a change in your vision in the last 12 months?'. Table 6.4 shows the proportion of Victorian adults who noticed a change in their vision in the 12 months preceding the survey, by age group and sex.

Overall, 42.1 per cent of people had noticed significant changes in their vision in the previous 12 months, which was significantly higher in women (44.4 per cent) compared with men (39.7 per cent).

There was an age-related pattern, where the prevalence of vision change increased with age. There was a significantly higher proportion of men, women and adults aged 45 years or over who had noticed changes in their vision compared with all Victorian men, women and adults, respectively. By contrast there was a significantly lower proportion of men, women and adults aged 18–44 years who had noticed a change in their vision compared with all Victorian men, women and adults, respectively.

Table 6.4: Change in vision in the previous 12 months, by age group and sex, Victoria, 2011–12

Age group (years)	Males			Females			Persons		
	%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL
18–24	23.8	18.9	29.6	29.0	24.5	34.0	26.4	22.9	30.1
25–34	21.3	17.3	25.9	24.6	21.5	28.1	22.9	20.3	25.8
35–44	29.9	27.1	32.9	37.5	35.2	39.8	33.8	31.9	35.7
45–54	64.4	61.6	67.0	72.2	70.1	74.1	68.3	66.6	70.0
55–64	50.5	47.9	53.1	53.6	51.5	55.8	52.1	50.4	53.8
65+	47.6	45.5	49.7	50.4	48.6	52.1	49.1	47.8	50.5
Total	39.7	38.3	41.2	44.4	43.3	45.6	42.1	41.2	43.0

Data are age-specific estimates, except for 'Total', which represent the estimates for Victoria and were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

Table 6.5 shows the proportion of Victorian adults who had noticed a change in their vision in the previous 12 months, by Department of Health region and sex. There were no significant differences in the proportion of men, women and adults who had noticed a change in their vision in the previous 12 months and who lived in rural compared with metropolitan Victoria. There were also no significant differences by Department of Health region.

Table 6.5: Change in vision in previous 12 months, by Department of Health region and sex, Victoria, 2011–12

Region	%	Males		%	Females		%	Persons	
		95% CI			95% CI			95% CI	
		LL	UL		LL	UL		LL	UL
Eastern Metropolitan	42.5	39.0	46.0	44.3	41.4	47.2	43.6	41.3	45.9
North & West Metropolitan	39.3	36.9	41.8	44.9	43.0	46.9	42.1	40.6	43.7
Southern Metropolitan	38.0	35.3	40.8	42.5	40.1	45.1	40.2	38.3	42.1
Metropolitan	39.8	38.1	41.5	44.2	42.8	45.5	42.0	40.9	43.1
Barwon-South Western	41.9	33.8	50.4	45.7	41.5	50.0	43.6	38.8	48.5
Gippsland	39.0	35.5	42.5	46.6	42.9	50.3	42.8	40.2	45.5
Grampians	36.6	33.2	40.2	46.5	42.3	50.7	41.5	38.7	44.3
Hume	38.0	34.7	41.4	42.4	39.8	45.1	40.2	38.1	42.4
Loddon Mallee	38.3	35.1	41.6	45.6	42.4	48.8	42.6	40.1	45.2
Rural	39.2	36.3	42.2	45.5	43.5	47.4	42.4	40.6	44.2
Total	39.7	38.3	41.2	44.4	43.3	45.6	42.1	41.2	43.0

Data were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

Table 6.6 shows the proportion of Victorian adults who had noticed a change in their vision in the previous 12 months, by LGA. There was a significantly higher proportion of people who had noticed a change in their vision in the previous 12 months in the LGA of Monash (C) compared with all Victorian adults. By contrast there were significantly lower proportions of people who had noticed a change in their vision in the previous 12 months who lived in the LGAs of Banyule (C), Greater Shepparton (C), Macedon Ranges (S), Maribyrnong (C) and Moyne (S) compared with all Victorian adults.

Table 6.6: Change in vision in previous 12 months, by LGA, Victoria, 2011–12

LGA	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
Alpine (S)	40.6	32.0	49.9	59.3	50.1	67.9
Ararat (RC)	39.1	33.5	44.9	60.2	54.4	65.8
Ballarat (C)	39.2	33.8	44.9	60.8	55.1	66.2
Banyule (C)	35.7	31.2	40.6	64.1	59.3	68.7
Bass Coast (S)	45.4	38.2	52.8	54.3	46.9	61.5
Baw Baw (S)	40.9	35.3	46.7	58.9	53.1	64.5
Bayside (C)	36.5	30.6	42.8	63.5	57.2	69.4
Benalla (RC)	36.3	31.8	41.1	63.2	58.4	67.7
Boroondara (C)	39.7	34.1	45.5	59.9	54.1	65.5
Brimbank (C)	44.0	38.9	49.3	55.6	50.3	60.7
Buloke (S)	50.4	42.3	58.4	49.6	41.6	57.7
Campaspe (S)	44.2	38.1	50.3	55.7	49.5	61.7
Cardinia (S)	39.5	34.8	44.5	60.5	55.5	65.2
Casey (C)	38.3	33.3	43.6	61.7	56.4	66.7
Central Goldfields (S)	44.9	37.0	53.0	54.6	46.4	62.5
Colac-Otway (S)	42.7	36.4	49.3	57.3	50.7	63.6
Corangamite (S)	38.6	32.3	45.4	61.3	54.5	67.6
Darebin (C)	39.7	34.3	45.3	60.2	54.5	65.5
East Gippsland (S)	46.2	40.5	51.9	53.7	48.0	59.4
Frankston (C)	41.9	35.8	48.2	58.1	51.8	64.2
Gannawarra (S)	38.9	32.1	46.2	61.0	53.7	67.8
Glen Eira (C)	38.6	32.7	44.9	61.1	54.8	67.0
Glenelg (S)	37.4	33.4	41.7	62.6	58.3	66.6
Golden Plains (S)	45.6	38.5	52.8	54.2	47.0	61.3
Greater Bendigo (C)	42.7	36.2	49.5	57.3	50.5	63.8
Greater Dandenong (C)	42.8	37.6	48.1	56.3	50.9	61.7
Greater Geelong (C)	44.6	37.2	52.3	55.4	47.7	62.8
Greater Shepparton (C)	34.9	29.8	40.4	65.1	59.6	70.2
Hepburn (S)	47.6	38.3	57.1	52.4	42.9	61.7
Hindmarsh (S)	39.5	34.1	45.3	60.5	54.7	65.9
Hobsons Bay (C)	40.7	35.0	46.7	59.1	53.1	64.9
Horsham (RC)	44.0	35.0	53.4	55.8	46.4	64.8
Hume (C)	39.8	34.5	45.3	59.6	54.1	64.9
Indigo (S)	45.5	39.1	52.2	54.4	47.7	60.8
Kingston (C)	40.0	35.1	45.0	60.0	55.0	64.9
Knox (C)	41.4	36.0	47.1	58.0	52.4	63.5
Latrobe (C)	39.0	34.3	43.9	61.0	56.1	65.7
Loddon (S)	36.8	30.4	43.8	62.9	56.0	69.4
Macedon Ranges (S)	35.3	30.3	40.6	64.7	59.4	69.7
Manningham (C)	44.3	38.0	50.8	55.7	49.2	62.0
Mansfield (S)	47.7	40.2	55.3	52.3	44.7	59.8
Maribyrnong (C)	35.8	31.6	40.2	63.8	59.3	68.0

Table 6.6: Change in vision in previous 12 months, by LGA, Victoria, 2011–12 (continued)

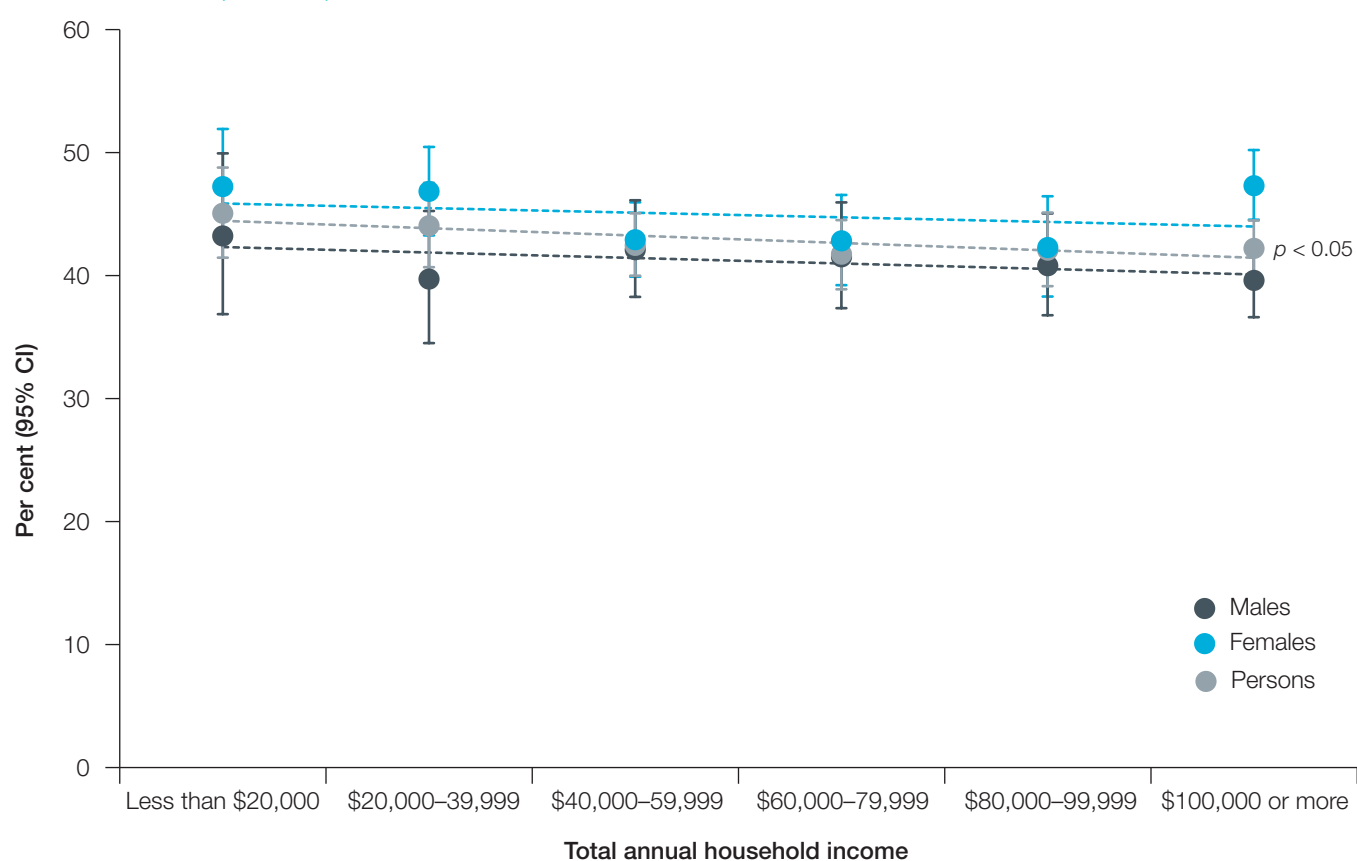
LGA	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
Maroondah (C)	41.9	36.1	48.0	58.1	52.0	63.9
Melbourne (C)	39.0	33.5	44.9	61.0	55.1	66.5
Melton (S)	42.9	37.5	48.6	56.6	50.9	62.0
Mildura (RC)	47.1	40.6	53.7	52.9	46.3	59.4
Mitchell (S)	38.4	33.6	43.4	61.3	56.2	66.1
Moira (S)	44.5	37.6	51.7	55.3	48.2	62.3
Monash (C)	49.5	43.3	55.8	50.3	44.1	56.6
Moonee Valley (C)	44.6	38.5	50.9	55.2	48.9	61.3
Moorabool (S)	42.8	37.2	48.5	57.2	51.5	62.8
Moreland (C)	44.5	38.7	50.6	55.3	49.3	61.2
Mornington Peninsula (S)	39.2	32.8	46.0	60.4	53.6	66.8
Mount Alexander (S)	43.3	36.5	50.5	56.4	49.3	63.3
Moyne (S)	35.3	31.4	39.5	64.5	60.3	68.5
Murrindindi (S)	45.9	37.8	54.3	54.0	45.7	62.1
Nillumbik (S)	39.4	34.7	44.4	60.4	55.5	65.2
Northern Grampians (S)	48.3	37.9	58.9	51.5	40.9	61.9
Port Phillip (C)	40.5	35.1	46.0	59.4	53.9	64.7
Pyrenees (S)	37.2	32.1	42.5	62.7	57.4	67.7
Queenscliffe (B)	40.6	33.6	48.1	59.3	51.9	66.4
South Gippsland (S)	40.6	35.1	46.3	59.4	53.7	64.9
Southern Grampians (S)	40.6	34.0	47.6	59.2	52.3	65.8
Stonnington (C)	41.7	35.9	47.8	58.3	52.2	64.1
Strathbogie (S)	39.1	32.7	46.0	60.8	54.0	67.3
Surf Coast (S)	42.8	36.0	49.8	57.1	50.1	63.9
Swan Hill (RC)	47.3	40.8	53.8	52.7	46.2	59.2
Towong (S)	38.6	32.8	44.6	61.4	55.4	67.2
Wangaratta (RC)	38.3	33.5	43.4	61.4	56.4	66.3
Warrnambool (C)	39.4	34.4	44.6	60.2	54.9	65.2
Wellington (S)	49.5	41.7	57.3	50.5	42.7	58.3
West Wimmera (S)	41.5	36.0	47.2	58.5	52.8	64.0
Whitehorse (C)	41.7	35.7	47.9	57.5	51.2	63.5
Whittlesea (C)	44.2	38.6	49.8	55.4	49.7	60.9
Wodonga (RC)	40.7	34.8	46.9	58.4	52.0	64.4
Wyndham (C)	44.6	39.3	50.0	55.4	50.0	60.7
Yarra (C)	40.3	34.2	46.7	59.7	53.3	65.8
Yarra Ranges (S)	49.0	42.1	55.9	50.4	43.5	57.3
Yarriambiack (S)	41.5	34.6	48.7	58.5	51.3	65.4
Victoria	41.9	40.9	42.8	57.9	57.0	58.9

Data were age-standardised to the 2011 Victorian population, using 10-year age groups.
Metropolitan and rural LGAs are identified by colour as follows: metropolitan/rural.
LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

LGA= Local government area; B = Borough; C = City; S = Shire; RC = Rural City.
Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: **above/below** Victoria.

The relationship was investigated between SES and the age-adjusted proportion of men and women who noticed a change in their vision in the previous 12 months, using total annual household income as a measure of SES (Figure 6.4). While there appeared to be a trend by which the proportion of men and women who had noticed a change in their vision in the previous 12 months declined with increasing total annual household income, this did not reach statistical significance. However, when the data for men and women were combined there was a statistically significant decline with increasing income. This is consistent with the literature, which predominately finds that poorer health outcomes are associated with declining SES.

Figure 6.4: Proportion of Victorians who noticed a change in their vision in the previous 12 months, by total annual household income, Victoria, 2011–12



Data were age-standardised to the 2011 Victorian population.
 95% CI = 95 per cent confidence interval.
 Ordinary least squares regression was used to test for statistical significance

Contact with an eye health professional

Survey participants were subsequently asked ‘Have you ever seen someone who specialises in eyes, for example, an optician, optometrist, ophthalmologist (specialist eye doctor) or eye clinic?’. Table 6.7 summarises the findings, by age group and sex.

The majority of Victorians had seen an eye health professional (79.6 per cent) and this was significantly greater for women (83.3 per cent) compared with men (75.9 per cent).

There was an age-related pattern in that there were higher proportions of men and women aged 45 years or over who had ever seen an eye health professional compared with all Victorian men and women, respectively. Conversely, there were significantly lower proportions of men and women aged 18–44 years compared with all Victorian men and women (respectively) who had ever seen someone who specialises in eye health.

Table 6.7: Ever seen an eye health professional, by age group and sex, Victoria, 2011–12

Age group (years)	Males			Females			Persons		
	%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL
18–24	61.8	56.1	67.3	72.5	67.4	77.1	67.0	63.2	70.7
25–34	60.1	55.1	65.0	70.4	66.7	73.8	65.2	62.1	68.2
35–44	65.5	62.4	68.4	77.5	75.5	79.4	71.6	69.7	73.4
45–54	82.0	79.8	84.0	90.0	88.7	91.3	86.1	84.8	87.3
55–64	92.7	91.2	93.9	95.1	94.1	96.0	93.9	93.1	94.7
65+	94.6	93.5	95.5	96.5	95.8	97.2	95.7	95.0	96.2
Total	75.9	74.5	77.3	83.3	82.2	84.4	79.6	78.7	80.5

Data are age-specific estimates, except for 'Total', which represent the estimates for Victoria and were age-standardised to the 2011 Victorian population. LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

Table 6.8 shows the proportion of adult Victorians who had ever seen an eye health professional, by Department of Health region and sex.

There were no significant differences in the proportion of men and women who had ever seen an eye health professional and who lived in rural compared with metropolitan Victoria. However,

there were significantly higher proportions of men who lived in Eastern Metropolitan Region and women who lived in Loddon Mallee Region who had ever seen an eye health professional compared with all Victorian men and women, respectively.

Table 6.8: Ever seen an eye health professional, by Department of Health region and sex, Victoria, 2011–12

Age group (years)	Males			Females			Persons		
	%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL
Eastern Metropolitan	80.8	77.4	83.7	86.0	83.0	88.5	83.3	81.1	85.3
North & West Metropolitan	76.0	73.5	78.3	81.8	80.0	83.5	78.9	77.4	80.4
Southern Metropolitan	74.7	71.6	77.5	82.3	79.8	84.6	78.5	76.6	80.4
Metropolitan	76.9	75.2	78.5	82.9	81.6	84.1	79.9	78.9	80.9
Barwon-South Western	72.7	64.0	80.0	85.9	81.1	89.7	79.4	74.1	83.8
Gippsland	73.9	69.5	77.9	84.6	81.5	87.4	79.1	76.4	81.7
Grampians	74.0	69.1	78.4	81.7	77.7	85.1	78.4	75.2	81.3
Hume	71.7	67.3	75.7	84.3	81.6	86.6	78.0	75.5	80.4
Loddon Mallee	72.3	67.5	76.6	87.9	85.7	89.8	79.7	76.3	82.8
Rural	72.8	69.7	75.7	85.2	83.4	86.7	78.9	77.1	80.7
Total	75.9	74.5	77.3	83.3	82.2	84.4	79.6	78.7	80.5

Data were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

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

Table 6.9 shows the proportion of adult Victorians who had ever seen an eye health professional, by LGA. There were significantly higher proportions of people who had never seen an eye health professional who lived in the LGAs of Campaspe (S), Mitchell (S) and Queenscliffe (B) compared with all Victorian adults.

Table 6.9: Ever seen an eye health professional, by LGA, Victoria, 2011–12

LGA	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
Alpine (S)	75.1	64.4	83.4	24.9	16.6	35.6
Ararat (RC)	79.8	71.5	86.1	20.2	13.9	28.5
Ballarat (C)	79.0	72.6	84.3	21.0	15.7	27.4
Banyule (C)	81.4	74.8	86.5	18.6	13.5	25.2
Bass Coast (S)	80.4	72.6	86.4	19.6	13.6	27.4
Baw Baw (S)	77.7	71.4	83.0	22.3	17.0	28.6
Bayside (C)	77.6	70.1	83.7	22.4	16.3	29.9
Benalla (RC)	75.6	64.9	83.8	24.4	16.2	35.1
Boroondara (C)	85.1	78.3	90.0	14.9	10.0	21.7
Brimbank (C)	77.2	71.7	81.8	22.2	17.7	27.6
Buloke (S)	77.0	69.0	83.5	23.0	16.5	31.0
Campaspe (S)	71.7	64.2	78.2	28.3	21.8	35.8
Cardinia (S)	75.4	69.8	80.2	24.5	19.7	30.0
Casey (C)	74.6	69.0	79.5	25.4	20.5	31.0
Central Goldfields (S)	81.6	72.3	88.3	17.2	10.9	25.9
Colac-Otway (S)	84.1	77.8	88.8	15.8	11.1	22.1
Corangamite (S)	80.5	74.7	85.2	19.5	14.8	25.3
Darebin (C)	74.8	68.7	80.1	25.0	19.8	31.2
East Gippsland (S)	78.9	72.1	84.5	21.0	15.4	27.8
Frankston (C)	80.5	73.8	85.8	19.5	14.2	26.2
Gannawarra (S)	76.5	67.8	83.4	23.5	16.6	32.2
Glen Eira (C)	82.2	76.0	87.0	17.8	13.0	24.0
Glenelg (S)	85.4	78.8	90.2	14.6	9.8	21.2
Golden Plains (S)	78.0	71.3	83.5	21.9	16.4	28.6
Greater Bendigo (C)	83.6	74.7	89.7	16.3	10.2	25.2
Greater Dandenong (C)	75.7	70.1	80.5	24.3	19.5	29.9
Greater Geelong (C)	79.0	71.3	85.1	21.0	14.9	28.7
Greater Shepparton (C)	80.9	73.0	86.9	19.1	13.1	27.0
Hepburn (S)	78.0	67.3	85.9	22.0	14.1	32.7
Hindmarsh (S)	78.6	69.4	85.7	21.4	14.3	30.6
Hobsons Bay (C)	76.0	69.5	81.4	24.0	18.6	30.5
Horsham (RC)	78.5	66.7	86.9	21.5	13.1	33.3
Hume (C)	75.5	70.1	80.2	24.2	19.5	29.5
Indigo (S)	77.5	69.9	83.6	22.5	16.4	30.1
Kingston (C)	80.8	74.3	86.0	19.2	14.0	25.7
Knox (C)	82.0	76.6	86.4	17.8	13.4	23.2
Latrobe (C)	81.5	75.5	86.3	17.5	12.8	23.4
Loddon (S)	75.6	64.6	84.1	24.4	15.9	35.4
Macedon Ranges (S)	78.9	72.4	84.3	21.1	15.7	27.6
Manningham (C)	83.2	77.0	87.9	16.8	12.1	23.0
Mansfield (S)	76.7	68.0	83.6	23.3	16.4	32.0
Maribyrnong (C)	76.4	69.7	81.9	23.6	18.1	30.3

Table 6.9: Ever seen an eye health professional, by LGA, Victoria, 2011–12 (continued)

LGA	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
Maroondah (C)	84.7	79.1	89.0	15.3	11.0	20.9
Melbourne (C)	84.5	79.2	88.6	15.5	11.4	20.8
Melton (S)	77.4	72.1	81.9	22.6	18.1	27.9
Mildura (RC)	80.0	72.7	85.7	20.0	14.3	27.3
Mitchell (S)	71.6	65.1	77.4	28.4	22.6	34.9
Moira (S)	75.2	67.4	81.6	24.8	18.4	32.6
Monash (C)	83.3	77.1	88.1	16.7	11.9	22.9
Moonee Valley (C)	82.0	75.8	86.8	17.9	13.0	24.0
Moorabool (S)	76.7	70.4	82.1	23.3	17.9	29.6
Moreland (C)	79.9	73.7	85.0	20.0	14.9	26.3
Mornington Peninsula (S)	79.4	72.5	84.9	20.6	15.1	27.5
Mount Alexander (S)	80.3	71.4	87.0	19.7	13.0	28.6
Moyne (S)	76.7	68.4	83.4	23.3	16.6	31.6
Murrindindi (S)	77.6	69.8	83.8	22.4	16.2	30.2
Nillumbik (S)	78.6	71.8	84.1	21.4	15.9	28.2
Northern Grampians (S)	78.1	66.9	86.2	21.9	13.8	33.1
Port Phillip (C)	77.8	70.0	84.1	22.2	15.9	30.0
Pyrenees (S)	76.3	63.6	85.6	23.7	14.4	36.4
Queenscliffe (B)	66.8	56.4	75.7	33.2	24.3	43.6
South Gippsland (S)	73.9	64.8	81.3	26.1	18.7	35.2
Southern Grampians (S)	76.0	63.5	85.2	24.0	14.8	36.5
Stonnington (C)	83.3	76.9	88.2	16.7	11.8	23.1
Strathbogie (S)	82.8	76.0	88.0	17.2	12.0	24.0
Surf Coast (S)	79.7	71.2	86.3	20.3	13.7	28.8
Swan Hill (RC)	76.2	69.1	82.1	23.8	17.9	30.9
Towong (S)	80.7	73.4	86.4	19.3	13.6	26.6
Wangaratta (RC)	79.8	72.9	85.2	20.2	14.8	27.1
Warrnambool (C)	82.0	75.7	86.9	18.0	13.1	24.3
Wellington (S)	79.5	72.5	85.0	20.5	15.0	27.5
West Wimmera (S)	80.2	73.7	85.5	19.8	14.5	26.3
Whitehorse (C)	83.9	77.3	88.9	16.1	11.1	22.7
Whittlesea (C)	75.9	70.4	80.8	24.1	19.2	29.6
Wodonga (RC)	83.8	78.5	87.9	16.2	12.1	21.5
Wyndham (C)	79.3	74.4	83.4	20.7	16.6	25.6
Yarra (C)	83.2	76.0	88.5	16.8	11.5	24.0
Yarra Ranges (S)	81.2	75.3	85.9	18.8	14.1	24.7
Yarriambiack (S)	83.1	76.3	88.3	16.9	11.7	23.7
Victoria	79.6	78.7	80.5	20.4	19.5	21.3

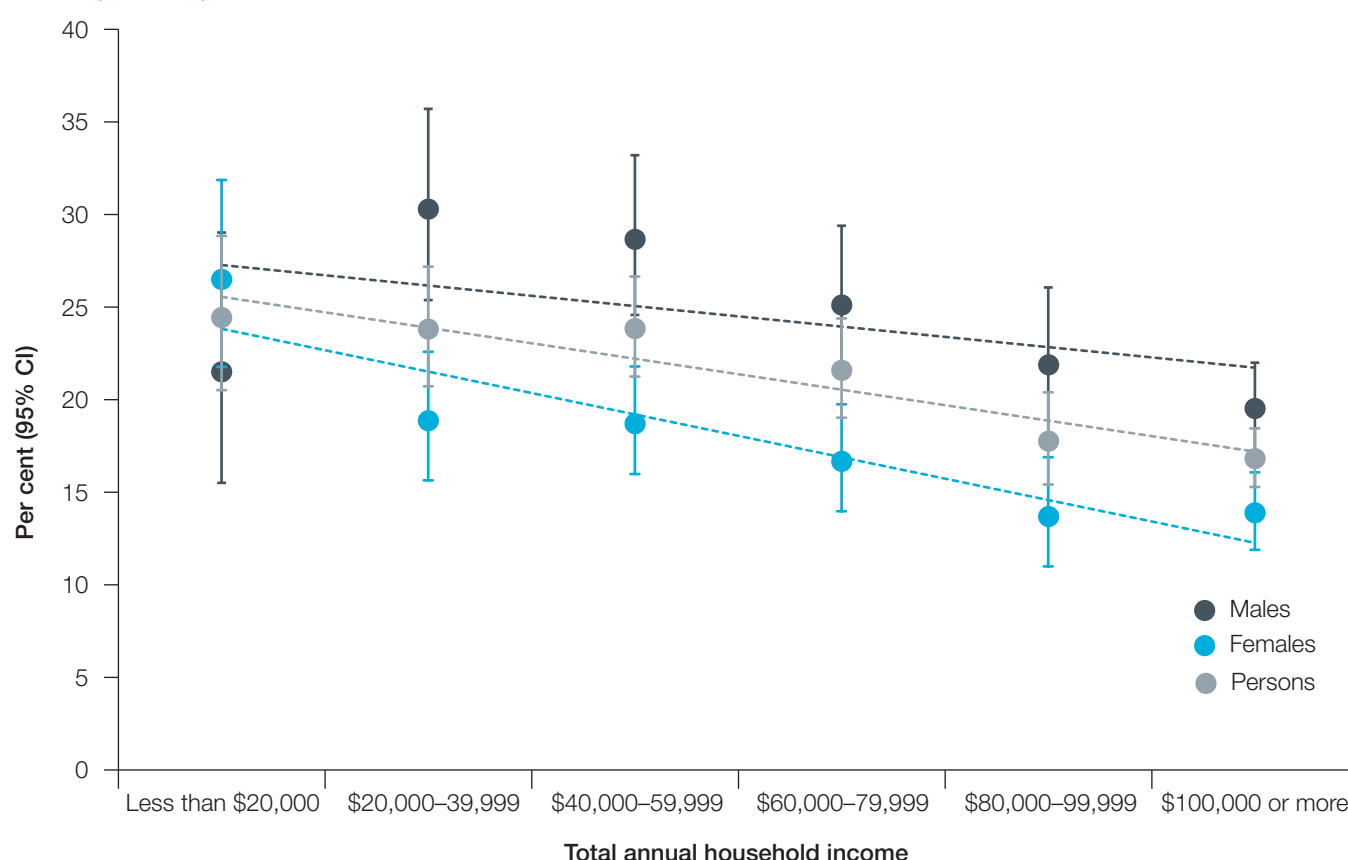
Data were age-standardised to the 2011 Victorian population, using 10-year age groups.

Metropolitan and rural LGAs are identified by colour as follows: metropolitan/rural. LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

LGA= Local government area; B = Borough; C = City; S = Shire; RC = Rural City. Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above/below Victoria

The relationship was investigated between SES and the age-adjusted proportion of men and women who had never seen an eye health professional, using total annual household income as a measure of SES (Figure 6.5). While there appeared to be a trend by which the proportion of men who had never seen an eye health professional declined with increasing total annual household income, this did not reach statistical significance. However, statistical significance was reached in women and people, where the proportion who had never seen an eye health professional declined with increasing income.

Figure 6.5: Proportion of adult Victorians who had never seen an eye health professional, by total annual household income and sex, Victoria, 2011–12



Data were age-standardised to the 2011 Victorian population.
95% CI = 95 per cent confidence interval.
Ordinary least squares regression was used to test for statistical significance.

Most recent visit to an eye health professional

Survey respondents who indicated that they had ever seen an eye health professional were then asked about their most recent visit. The data are summarised in Table 6.10.

Overall, 29.3 per cent of people had visited an eye health professional less than six months prior, 25.0 per cent between six months and one year, 19.7 per cent more than one year but less than two years prior, 15.1 per cent more than two years but less than five years prior and 10.6 per cent five years or more prior to the survey.

There was an age-related pattern in the proportion of men and women who had seen an eye health professional between six and 12 months prior to the survey, where there were significantly higher proportions of those aged 45–65 years or over compared

with all men and women. Similarly there were significantly higher proportions of men and women aged 65 years or over who had visited an eye health professional less than six months prior.

Two notable differences were apparent between the sexes. There was a significantly higher proportion of women who had visited an eye health professional between six months and one year prior to the survey compared with their male counterparts. Conversely, there was a significantly higher proportion of men who had visited an eye health professional five years or more prior compared with their female counterparts.

Table 6.10 Recency of last visit to an eye care professional, by age group and sex, Victoria, 2011–12

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	LL	UL	%	95% CI	LL	UL	%	95% CI	LL	UL	%	95% CI	LL	UL
Males																
18–24	24.9	19.0	31.9	21.4	15.8	28.3	17.8	12.6	24.7	19.5	14.7	25.3	16.1	12.0	21.1	21.1
25–34	23.7	18.5	29.8	14.9	11.0	19.8	21.1	16.2	26.9	14.3	10.3	19.7	24.9	19.7	31.0	31.0
35–44	20.1	17.1	23.5	22.1	18.9	25.6	17.4	14.6	20.7	20.8	17.7	24.3	19.1	16.2	22.3	22.3
45–54	29.1	26.4	32.0	28.3	25.6	31.2	22.3	19.8	25.0	13.5	11.6	15.7	6.5	5.2	8.2	8.2
55–64	29.5	27.0	32.1	28.0	25.6	30.5	22.8	20.5	25.2	14.0	12.2	15.9	5.7	4.6	7.1	7.1
65+	40.4	38.3	42.6	26.8	24.9	28.7	16.2	14.6	17.8	11.7	10.3	13.2	4.6	3.8	5.6	5.6
Total	28.5	26.8	30.3	23.0	21.6	24.5	19.3	17.8	20.9	15.6	14.2	17.1	13.2	11.8	14.7	14.7
Females																
18–24	29.6	24.0	35.9	24.4	19.4	30.2	20.1	15.8	25.2	13.7	10.0	18.5	12.3	8.6	17.2	17.2
25–34	22.2	18.7	26.2	21.5	18.0	25.5	19.3	16.1	23.0	21.0	17.7	24.8	15.2	12.4	18.6	18.6
35–44	25.0	22.7	27.5	23.3	21.0	25.6	20.2	18.1	22.6	18.4	16.4	20.7	12.8	11.2	14.7	14.7
45–54	30.5	28.3	32.7	31.1	28.9	33.3	22.5	20.6	24.5	12.4	10.9	14.1	3.5	2.8	4.4	4.4
55–64	32.8	30.7	34.9	30.4	28.4	32.5	22.6	20.8	24.5	11.7	10.4	13.2	2.4	1.9	3.1	3.1
65+	39.1	37.4	40.9	29.9	28.2	31.5	17.9	16.6	19.3	10.2	9.2	11.4	2.5	2.0	3.1	3.1
Total	30.0	28.6	31.3	26.7	25.5	28.0	20.2	19.1	21.3	14.6	13.6	15.7	8.3	7.4	9.3	9.3
Persons																
18–24	27.4	23.2	32.0	23.0	19.1	27.3	19.0	15.5	23.1	16.4	13.3	20.0	14.0	11.2	17.5	17.5
25–34	22.9	19.7	26.4	18.4	15.7	21.5	20.1	17.2	23.4	17.9	15.2	21.0	19.7	16.8	23.0	23.0
35–44	22.8	20.9	24.8	22.7	20.8	24.8	19.0	17.2	20.9	19.5	17.7	21.5	15.6	14.0	17.4	17.4
45–54	29.8	28.1	31.6	29.8	28.0	31.6	22.4	20.8	24.0	13.0	11.7	14.3	4.9	4.1	5.8	5.8
55–64	31.2	29.6	32.8	29.2	27.7	30.8	22.7	21.2	24.2	12.8	11.7	14.0	4.0	3.4	4.7	4.7
65+	39.7	38.4	41.1	28.5	27.2	29.7	17.1	16.1	18.2	10.9	10.0	11.8	3.5	3.0	4.0	4.0
Total	29.3	28.2	30.4	25.0	24.0	25.9	19.7	18.8	20.7	15.1	14.2	16.0	10.6	9.8	11.5	11.5

Data are age-specific estimates, except for 'Total', which represent the estimates for Victoria and were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

Table 6.11 shows the recency of the last visit to an eye health professional, by Department of Health region and sex. There were significantly lower proportions of adults living in rural compared with metropolitan Victoria who had last visited an eye health professional in the previous six months. Moreover there were significantly lower proportions of women and people living in Hume Region who had last visited an eye health professional in the previous six months.

By contrast there were significantly higher proportions of men and women living in rural Victoria who had last seen an eye health professional five years or more prior compared with their metropolitan counterparts. Moreover there were significantly higher proportions of women and people living in Hume Region who had last seen an eye health professional five years or more prior to the survey compared with all women and Victorian adults, respectively.

Table 6.11: Recency of last visit to an eye care professional, by Department of Health region and sex, Victoria, 2011–12

Region	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		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Males															
Eastern Metropolitan	31.1	27.2	35.3	20.3	17.4	23.6	19.7	16.4	23.5	15.2	12.4	18.5	13.7	10.8	17.3
North & West Metropolitan	28.0	25.2	30.9	23.9	21.4	26.6	18.7	16.2	21.5	16.1	13.8	18.7	12.6	10.5	15.0
Southern Metropolitan	29.6	25.8	33.8	24.5	21.4	27.9	19.2	16.1	22.8	15.8	13.0	19.0	10.0	7.6	13.0
Metropolitan males	29.4	27.4	31.5	23.0	21.3	24.7	19.2	17.4	21.0	15.9	14.3	17.6	12.1	10.6	13.7
Barwon-South Western	24.4	19.2	30.4	26.2	20.6	32.8	18.8	13.8	25.0	11.5	8.0	16.1	19.1	14.1	25.2
Gippsland	26.6	21.9	31.8	21.8	18.1	26.0	15.9	12.5	20.1	17.7	13.7	22.5	17.9	13.5	23.5
Grampians	25.9	21.3	31.2	23.0	18.9	27.6	20.1	15.6	25.5	15.3	11.2	20.4	15.7	11.8	20.5
Hume	26.0	22.3	30.2	21.2	18.1	24.8	16.7	13.4	20.4	18.8	14.1	24.6	17.0	13.2	21.6
Loddon Mallee	26.1	21.4	31.5	18.9	15.8	22.5	26.3	21.2	32.1	11.4	9.0	14.5	17.1	12.5	23.0
Rural males	25.4	22.8	28.3	22.6	20.3	25.2	19.6	17.1	22.3	14.4	12.3	16.7	17.9	14.7	21.5
Total	28.5	26.8	30.3	23.0	21.6	24.5	19.3	17.8	20.9	15.6	14.2	17.1	13.2	11.8	14.7

Data were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

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

Table 6.11: Recency of last visit to an eye care professional, by Department of Health region and sex, Victoria, 2011–12 (continued)

Region	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		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Females															
Eastern Metropolitan	30.9	27.8	34.2	27.2	23.5	31.4	20.0	17.0	23.3	14.3	11.7	17.5	7.4	5.6	9.7
North & West Metropolitan	31.8	29.4	34.2	27.3	25.1	29.6	19.1	17.3	21.0	14.3	12.8	16.1	7.4	6.0	9.0
Southern Metropolitan	28.9	26.1	31.9	27.0	24.5	29.7	20.9	18.4	23.7	15.4	13.1	18.0	7.2	5.5	9.2
Metropolitan females	31.0	29.4	32.6	27.0	25.5	28.6	19.8	18.5	21.2	14.6	13.3	15.9	7.4	6.4	8.4
Barwon-South Western	30.2	25.6	35.2	21.4	18.4	24.8	22.0	17.8	26.7	15.7	12.6	19.4	10.7	7.3	15.5
Gippsland	25.5	22.3	29.0	27.2	23.4	31.4	20.3	17.1	23.9	16.0	12.9	19.6	11.0	8.0	14.8
Grampians	25.4	22.0	29.0	27.5	23.5	32.0	18.1	15.8	20.8	16.1	12.2	20.9	12.6	9.2	16.9
Hume	25.6	22.9	28.6	27.0	24.0	30.2	21.7	18.8	24.9	13.4	11.2	16.0	12.1	9.4	15.4
Loddon Mallee	27.2	24.0	30.7	28.5	23.9	33.5	20.1	17.6	22.9	13.7	11.0	16.9	10.4	7.0	15.1
Rural females	27.1	25.2	29.2	26.0	24.0	28.0	20.7	19.0	22.5	14.8	13.3	16.4	11.3	9.6	13.3
Total	30.0	28.6	31.3	26.7	25.5	28.0	20.2	19.1	21.3	14.6	13.6	15.7	8.3	7.4	9.3

Data were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

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

Table 6.11: Recency of last visit to an eye care professional, by Department of Health region and sex, Victoria, 2011–12 (continued)

Region	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			
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	
Persons																
Eastern Metropolitan	31.5	28.9	34.3	23.2	20.9	25.7	20.1	17.9	22.6	14.7	12.7	17.0	10.3	8.6	12.4	
North & West Metropolitan	29.9	28.1	31.8	25.6	24.0	27.3	18.9	17.4	20.6	15.3	13.8	16.8	9.9	8.6	11.3	
Southern Metropolitan	29.2	26.9	31.6	25.9	23.9	28.0	20.2	18.1	22.4	15.6	13.8	17.6	8.5	7.0	10.2	
Metropolitan persons	30.2	29.0	31.5	25.1	23.9	26.2	19.5	18.4	20.6	15.2	14.2	16.3	9.6	8.7	10.5	
Barwon-South Western	26.4	21.8	31.5	23.7	20.5	27.3	20.8	17.2	24.9	13.4	10.9	16.4	15.6	10.7	22.1	
Gippsland	26.0	23.1	29.1	24.9	22.1	27.9	18.2	15.8	21.0	16.7	14.1	19.7	14.1	11.4	17.3	
Grampians	26.3	23.1	29.8	24.7	21.8	27.7	19.4	16.3	22.8	15.8	12.7	19.4	13.7	11.1	16.8	
Hume	25.7	23.4	28.1	24.6	22.3	27.1	19.4	17.2	21.9	15.7	13.1	18.8	14.4	12.0	17.1	
Loddon Mallee	26.8	24.0	29.8	25.1	21.5	29.1	22.3	19.4	25.5	12.6	10.6	14.9	13.1	10.0	16.9	
Rural persons	26.3	24.6	28.0	24.6	23.0	26.2	20.0	18.5	21.6	14.6	13.3	15.9	14.4	12.3	16.8	
Total	29.3	28.2	30.4	25.0	24.0	25.9	19.7	18.8	20.7	15.1	14.2	16.0	10.6	9.8	11.5	

Data were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

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

Eye health

Table 6.12 shows the recency of the last visit to an eye health professional, by LGA. The proportions of people who had visited an eye health professional less than six months prior to the survey were significantly lower in those who lived in East Gippsland (S), Greater Bendigo (C), Hindmarsh (S), Loddon (S), Mansfield (S), Mount Alexander (S), Pyrenees (S), South Gippsland (S), Surf Coast (S) and Towong (S) compared with all Victorian adults.

By contrast the proportions of people who had visited an eye health professional five years or more prior were significantly higher in those who lived in the LGAs of East Gippsland (S), Hindmarsh (S), Loddon (S), Moira (S), Northern Grampians (S), Pyrenees (S), Strathbogie (S), Surf Coast (S) and Yarra Ranges (S) compared with all Victorian adults. By contrast the proportion was significantly lower for those who lived in the LGA of Stonnington (C) compared with all Victorians.

Table 6.12: Recency of last visit to an eye care professional, by LGA, Victoria, 2011–12

LGA	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		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Alpine (S)	24.7	18.6	32.1	28.7	17.70	42.98	14.5	10.59	19.48	17.2*	10.18	27.59	14.9*	6.37	30.95
Ararat (RC)	28.4	21.7	36.2	24.7	18.4	32.3	19.5	13.5	27.3	10.6	7.5	14.7	16.8	10.2	26.3
Ballarat (C)	26.4	20.3	33.6	24.8	19.5	31.0	19.8	14.1	27.1	17.0	11.5	24.6	11.9	8.1	17.2
Banyule (C)	26.6	20.2	34.1	26.3	20.1	33.7	25.3	18.9	33.0	13.2	9.4	18.2	8.5	5.3	13.4
Bass Coast (S)	33.6	25.3	43.1	21.6	15.5	29.3	15.0	10.6	20.9	15.2*	9.0	24.7	14.5*	7.9	25.1
Baw Baw (S)	22.7	17.4	29.1	24.3	18.9	30.8	20.5	15.2	27.1	18.4	12.8	25.9	14.1	8.7	21.9
Bayside (C)	23.3	17.7	30.1	38.1	30.0	47.0	15.7	11.1	21.8	13.4	9.1	19.3	9.4*	4.9	17.0
Benalla (RC)	29.4	19.9	41.2	22.4	14.0	33.7	18.9	14.3	24.5	14.8*	8.3	25.0	14.2*	8.0	23.9
Boroondara (C)	31.7	25.5	38.7	29.1	21.9	37.4	16.4	12.2	21.6	9.7	6.4	14.5	13.1	8.3	20.1
Brimbank (C)	28.1	22.6	34.3	27.4	21.9	33.7	15.8	11.8	21.0	20.8	15.5	27.2	8.0*	4.8	12.9
Buloke (S)	25.5	18.2	34.6	27.2	19.2	37.1	24.6	17.6	33.2	14.6*	7.3	27.3	8.0	4.9	12.7
Campaspe (S)	31.6	23.9	40.5	22.7	16.3	30.8	22.6	15.0	32.7	13.5*	6.8	24.9	9.6*	4.9	17.9
Cardinia (S)	28.1	22.6	34.4	27.5	21.7	34.3	20.9	16.1	26.7	13.6	9.4	19.4	9.6	6.2	14.5
Casey (C)	32.4	24.9	40.9	23.4	18.6	29.0	19.9	14.3	26.9	16.2	10.6	24.0	7.5*	3.9	14.1
Central Goldfields (S)	20.8	14.1	29.6	20.7	15.3	27.4	20.6	14.0	29.3	25.6	15.3	39.6	12.2	8.2	17.9
Colac-Otway (S)	24.2	19.3	29.9	26.8	20.5	34.2	19.2	14.5	24.9	16.1	10.6	23.6	13.7	8.3	21.7
Corangamite (S)	21.4	15.6	28.7	25.6	20.1	32.1	19.1	13.6	26.1	21.7	14.2	31.7	12.1	7.7	18.6
Darebin (C)	22.4	17.4	28.3	24.9	18.4	32.8	20.4	15.8	26.0	15.0	9.8	22.4	15.5	9.7	23.8
East Gippsland (S)	20.1	16.1	24.7	28.2	22.2	35.0	15.9	11.4	21.7	13.6*	8.0	22.0	22.1	15.4	30.7
Frankston (C)	30.1	24.4	36.5	20.3	15.7	25.7	22.0	16.5	28.8	16.3	11.1	23.4	11.3	7.3	16.9
Gannawarra (S)	24.2	18.1	31.6	26.5	19.5	34.9	23.0	17.0	30.3	12.7	8.4	18.8	13.5*	7.5	23.2
Glen Eira (C)	26.2	20.9	32.4	29.0	22.7	36.2	16.2	11.0	23.2	18.5	13.2	25.2	10.2	6.4	15.8
Glenelg (S)	23.5	18.6	29.2	25.6	19.4	32.9	17.3	12.7	23.0	24.2	16.4	34.2	9.4*	4.6	18.3
Golden Plains (S)	24.4	19.5	30.2	32.9	24.9	41.9	20.6	15.6	26.7	12.0	8.8	16.1	10.1*	5.4	18.1
Greater Bendigo (C)	21.5	17.5	26.1	31.1	22.7	41.0	22.8	17.1	29.8	9.8	6.8	14.1	14.6*	7.9	25.4

Table 6.12: Recency of last visit to an eye care professional, by LGA, Victoria, 2011–12 (continued)

LGA	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		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Greater Dandenong (C)	26.7	21.4	32.6	25.4	20.1	31.5	20.8	15.8	26.9	17.5	12.7	23.6	8.4*	5.0	13.8
Greater Geelong (C)	26.9	20.2	35.0	24.3	18.1	31.8	22.0	16.1	29.3	11.2	7.3	16.8	15.5*	8.7	26.2
Greater Shepparton (C)	24.4	19.2	30.5	29.0	22.3	36.7	17.5	12.1	24.5	16.0	9.6	25.4	12.9*	7.7	20.9
Hepburn (S)	31.4	21.0	44.0	21.3	14.6	30.0	19.6	14.1	26.5	19.6*	10.8	32.9	8.0*	4.8	12.9
Hindmarsh (S)	18.8	15.7	22.4	21.1	15.0	28.6	22.5	15.8	30.8	14.8	9.7	22.1	22.9	14.9	33.5
Hobsons Bay (C)	30.0	23.7	37.1	24.1	18.5	30.7	19.4	13.7	26.9	15.5	10.3	22.6	11.1*	6.4	18.5
Horsham (RC)	27.4	19.1	37.6	21.0	16.5	26.3	26.4	16.5	39.4	13.0	9.7	17.3	12.1*	6.4	21.8
Hume (C)	32.5	25.7	40.2	33.9	28.0	40.2	15.8	11.7	20.9	12.1	8.1	17.9	5.7*	3.2	9.8
Indigo (S)	26.8	20.2	34.5	27.1	19.8	35.8	17.0	12.4	22.8	13.3	8.3	20.7	15.8*	9.3	25.5
Kingston (C)	32.6	25.7	40.3	20.2	15.8	25.5	22.0	16.2	29.2	14.6	10.4	20.1	10.5*	5.7	18.7
Knox (C)	26.4	21.2	32.3	23.4	18.4	29.3	20.8	15.6	27.1	19.2	14.2	25.6	10.2	6.6	15.3
Latrobe (C)	25.5	20.2	31.7	21.6	17.2	26.8	18.9	13.6	25.7	20.1	14.8	26.7	13.7	8.7	20.9
Loddon (S)	14.8	11.8	18.4	22.7	15.9	31.2	22.9	16.5	30.9	17.8	12.6	24.5	21.9	14.5	31.8
Macedon Ranges (S)	31.0	23.3	39.9	20.4	14.5	27.8	19.4	13.5	27.0	16.8	11.1	24.6	12.5*	7.3	20.5
Manningham (C)	32.1	25.8	39.1	18.6	14.6	23.3	28.2	20.9	36.9	12.1	7.9	18.2	9.1*	4.8	16.6
Mansfield (S)	21.6	17.8	26.0	18.0	13.6	23.5	21.9	15.0	30.8	21.1	13.2	31.9	17.4*	9.5	29.8
Maribymong (C)	26.1	20.7	32.2	22.6	14.0	34.4	19.0	14.0	25.3	18.4	13.0	25.5	13.2*	8.0	21.2
Maroondah (C)	27.4	22.0	33.7	21.6	16.4	27.8	18.8	13.5	25.6	18.4	13.3	24.8	13.6	8.7	20.5
Melbourne (C)	33.2	27.2	39.7	23.8	18.7	29.8	17.0	12.2	23.1	16.5	11.9	22.4	9.6	6.2	14.6
Melton (S)	33.1	27.1	39.7	25.8	20.8	31.5	20.3	15.9	25.7	10.8	7.4	15.5	9.5*	5.7	15.3
Mildura (RC)	34.5	27.8	41.9	21.4	16.6	27.2	21.7	16.7	27.7	10.4	7.1	15.0	11.7	7.5	17.9

Data were age-standardised to the 2011 Victorian population, using 10-year age groups.

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

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

LGA= Local government area; B = Borough; C = City; S = Shire; RC = Rural City.

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 6.12: Recency of last visit to an eye care professional, by LGA, Victoria, 2011–12 (continued)

LGA	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		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Mitchell (S)	22.5	17.7	28.2	24.6	18.8	31.6	24.0	15.9	34.6	12.1*	7.3	19.5	16.3	10.5	24.4
Moira (S)	24.1	19.7	29.3	24.7	18.5	32.2	17.0	11.2	25.1	15.1	9.6	23.1	18.9	11.6	29.3
Monash (C)	35.8	29.1	43.2	19.2	14.7	24.8	22.6	17.4	29.0	15.1	10.1	22.0	7.1	4.3	11.4
Moonee Valley (C)	35.4	28.5	43.0	20.1	15.8	25.2	18.1	13.5	23.9	18.1	13.1	24.6	7.8*	4.3	13.8
Moorabool (S)	25.5	19.8	32.2	29.2	22.5	36.8	14.6	10.7	19.8	16.0	11.1	22.5	13.5	8.8	20.1
Moreland (C)	34.3	27.7	41.5	20.3	15.7	25.9	22.2	16.2	29.6	12.7	8.8	18.1	10.4	6.3	16.6
Mornington Peninsula (S)	32.9	25.1	41.8	26.2	20.7	32.5	17.9	12.6	24.8	11.7	8.1	16.7	9.4*	4.8	17.7
Mount Alexander (S)	18.2	13.1	24.6	21.6	16.0	28.6	28.0	18.6	40.0	14.1	8.8	22.0	17.7*	10.5	28.3
Moyne (S)	21.6	16.3	28.2	22.3	16.8	29.1	24.8	19.2	31.5	21.4	13.6	32.0	9.6*	5.0	17.6
Murrindindi (S)	26.6	18.2	37.0	29.3	20.8	39.5	20.0	13.3	29.0	15.2	9.7	22.9	9.0*	4.8	16.5
Nilumbik (S)	30.6	23.1	39.2	21.0	16.5	26.3	15.7	11.4	21.2	18.1	11.9	26.5	14.6*	8.5	24.0
Northern Grampians (S)	26.7	18.5	36.9	22.5	17.7	28.2	15.2	11.6	19.6	12.1	7.9	18.0	23.0*	13.5	36.5
Port Phillip (C)	28.2	20.6	37.3	20.9	16.6	25.9	21.3	14.9	29.4	19.4	13.3	27.4	8.7*	4.8	15.2
Pyrenees (S)	16.6	13.0	20.8	22.9	16.3	31.2	22.7	14.3	34.0	8.7	5.4	13.8	29.1	18.6	42.5
Queenscliffe (B)	30.5	20.0	43.5	23.7	15.3	34.9	14.5*	8.0	25.0	21.6	13.5	32.7	9.7*	3.8	22.7
South Gippsland (S)	21.1	17.3	25.4	26.6	19.7	34.9	24.6	16.9	34.4	14.6*	8.7	23.5	13.1*	6.6	24.3
Southern Grampians (S)	31.7	24.2	40.3	23.2	16.4	31.7	18.1*	10.8	28.6	14.7*	8.8	23.5	12.1*	5.7	24.0
Stonnington (C)	29.4	23.8	35.7	30.8	24.5	37.9	21.5	15.9	28.4	13.4	9.1	19.4	4.4*	2.4	8.0
Strathbogie (S)	32.7	21.4	46.4	20.2	14.0	28.3	14.5	8.9	22.9	11.4*	6.3	19.5	21.1	13.4	31.7
Surf Coast (S)	20.7	15.5	27.2	24.6	19.4	30.6	23.7	15.6	34.3	11.3*	6.7	18.4	19.1	11.7	29.6
Swan Hill (RC)	28.8	21.3	37.6	17.4	12.9	23.0	27.3	19.9	36.1	14.7	10.0	21.0	11.7*	5.9	21.9
Towong (S)	21.5	17.3	26.4	16.0	12.9	19.8	23.9	16.6	33.1	22.5	14.2	33.9	15.9	10.1	24.1
Wangaratta (RC)	30.7	23.5	38.9	18.7	15.1	23.0	21.7	15.2	30.1	17.2	11.4	25.1	11.5*	6.5	19.6
Warrnambool (C)	25.4	20.5	30.9	24.8	19.0	31.5	18.8	13.6	25.3	16.5	11.6	22.9	14.6	10.1	20.7
Wellington (S)	33.8	25.1	43.8	28.7	20.2	39.2	16.6	11.8	22.7	11.4	7.4	17.1	9.5	6.0	14.8

Table 6.12: Recency of last visit to an eye care professional, by LGA, Victoria, 2011–12 (continued)

LGA	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	LL	UL	%	95% CI	LL	UL	%	95% CI	LL	UL	%	95% CI	LL	UL
West Wimmera (S)	27.3	20.8	34.9	17.8	13.1	23.7	21.0	27.0	17.1	12.5	23.1	16.8	11.2	24.4		
Whitehorse (C)	36.3	28.9	44.4	30.2	23.8	37.5	15.9	21.4	11.8	8.2	16.6	5.7*	2.9	10.9		
Whittlesea (C)	30.3	24.4	36.9	28.8	23.0	35.3	18.3	23.6	11.1	7.8	15.4	10.9	7.2	16.2		
Wodonga (RC)	27.3	21.3	34.4	23.8	19.5	28.8	19.8	26.3	15.1	10.3	21.7	13.8	8.5	21.5		
Wyndham (C)	29.2	23.6	35.5	29.2	23.9	35.0	13.9	18.7	16.9	12.5	22.5	9.1	5.8	14.0		
Yarra (C)	24.4	18.5	31.3	24.5	18.6	31.6	24.1	33.4	16.5*	9.4	27.4	10.6	7.0	15.7		
Yarra Ranges (S)	30.0	23.2	38.0	21.9	16.1	29.1	15.2	21.3	15.6	11.2	21.2	17.3	11.6	24.9		
Yarriambiack (S)	25.8	19.1	33.7	23.4	15.6	33.6	16.4	21.1	20.0	14.0	27.9	13.9*	7.9	23.1		
Victoria	29.2	28.1	30.3	25.1	24.1	26.1	19.8	20.7	15.1	14.3	16.0	10.5	9.7	11.4		

Data were age-standardised to the 2011 Victorian population, using 10-year age groups.

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

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

LGA= Local government area; B = Borough; C = City; S = Shire; RC = Rural City.

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 diseases

Uncorrected refractive error is the most common cause of vision impairment in Australia. Refractive errors are optical defects that result in light not being properly focused on the eye's retina. The most common are hypermetropia (long sightedness), myopia (short sightedness), astigmatism (uneven focus) and presbyopia (an age-related problem with near focus). However, the following eye diseases are the major causes of blindness and vision loss in Australia:

- cataract
- glaucoma
- diabetic retinopathy
- macular degeneration.

There are often no symptoms for these eye diseases in the early stages; however, if individuals wait until symptoms start to occur, then loss of vision may be irreversible. Correct early diagnosis and treatment can ensure that eyesight is preserved. The signs of eye disease are hard to detect, so having one's eyes tested is a simple and vital factor in maintaining healthy eyes.

Survey respondents were asked if they had ever had any of the aforementioned eye diseases. Table 6.13 shows the prevalence of cataract, glaucoma, diabetic retinopathy and macular degeneration, by age group and sex.

Overall, 8.9 per cent of people reported a cataract, 2.2 per cent reported glaucoma, 0.5 per cent reported diabetic retinopathy and 1.8 per cent reported macular degeneration.

The prevalence of cataract was significantly higher in women compared with men, but there was no difference between men and women for glaucoma, diabetic retinopathy or macular degeneration.

All the selected eye diseases were age-related, with their prevalence increasing with age. Victorians aged 65 years or over had the highest prevalence of cataract (35.0 per cent), glaucoma (7.8 per cent), diabetic retinopathy (1.4 per cent) and macular degeneration (5.8 per cent).

Table 6.13: Prevalence of selected eye diseases, by age group and sex, Victoria, 2011–12

Age group (years)	Cataract			Glaucoma			Diabetic retinopathy			Macular degeneration			Never seen an eye specialist		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Males															
18–24	**	**	**	**	**	**	**	**	**	**	**	**	38.2	32.7	43.9
25–34	**	**	**	**	**	**	**	**	**	**	**	**	39.9	35.0	44.9
35–44	0.9*	0.5	1.7	**	**	**	**	**	**	0.6*	0.3	1.2	34.5	31.6	37.6
45–54	3.0	2.1	4.2	1.4*	0.8	2.4	0.9*	0.5	1.9	1.6	1.1	2.4	18.0	16.0	20.2
55–64	6.8	5.6	8.3	2.5	1.7	3.5	1.1	0.6	1.7	2.4	1.8	3.2	7.3	6.1	8.8
65+	28.3	26.5	30.2	8.3	7.2	9.6	1.5	1.1	2.1	4.7	3.9	5.7	5.3	4.4	6.4
Total	7.5	7.1	8.0	2.3	2.0	2.6	0.6	0.4	0.8	1.7	1.5	2.0	24.0	22.6	25.5
Females															
18–24	**	**	**	**	**	**	**	**	**	**	**	**	27.3	22.7	32.4
25–34	**	**	**	**	**	**	**	**	**	**	**	**	29.6	26.2	33.3
35–44	0.9*	0.4	1.9	0.5*	0.2	1.2	**	**	**	0.1*	0.1	0.4	22.4	20.5	24.5
45–54	2.8	2.1	3.8	1.2	0.9	1.8	**	**	**	1.3	0.9	1.9	9.9	8.7	11.3
55–64	9.1	7.9	10.4	2.5	1.9	3.3	0.8	0.5	1.3	1.7	1.3	2.3	4.8	4.0	5.8
65+	40.5	38.8	42.2	7.4	6.6	8.4	1.3	0.9	1.8	6.6	5.8	7.5	3.4	2.8	4.1
Total	10.0	9.6	10.4	2.1	1.9	2.4	0.5	0.4	0.7	1.9	1.7	2.1	16.6	15.6	17.7
Persons															
18–24	0.9*	0.3	2.2	**	**	**	**	**	**	**	**	**	32.8	29.2	36.7
25–34	0.2*	0.1	0.6	**	**	**	**	**	**	**	**	**	34.8	31.8	37.9
35–44	0.9	0.5	1.4	0.3*	0.1	0.6	**	**	**	0.3*	0.2	0.7	28.4	26.6	30.2
45–54	2.9	2.3	3.6	1.3	1.0	1.8	0.6*	0.3	1.1	1.5	1.1	1.9	13.9	12.7	15.2
55–64	8.0	7.1	9.0	2.5	2.0	3.1	0.9	0.7	1.3	2.0	1.7	2.5	6.0	5.3	6.9
65+	35.0	33.7	36.3	7.8	7.1	8.6	1.4	1.1	1.7	5.8	5.2	6.4	4.3	3.7	4.9
Total	8.9	8.6	9.2	2.2	2.0	2.4	0.5	0.4	0.7	1.8	1.7	2.0	20.3	19.4	21.2

Data are age-specific estimates, except for 'Total', which represent the estimates for Victoria and were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent 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 RSE greater than 50 per cent and is not reported as it is unreliable for general use.

Table 6.14 shows the prevalence of selected eye diseases, by Department of Health region and sex.

Women and adults who lived in metropolitan Victoria had a significantly higher prevalence of cataract compared with their rural counterparts. However, there were no significant differences between men, women or adults who lived in metropolitan compared with rural Victoria in the prevalence of glaucoma, diabetic retinopathy or macular degeneration.

The prevalence of cataract was significantly lower in men and people who lived in Grampians Region compared with all Victorian men and adults, respectively. There were no other significant regional differences for cataract.

The prevalence of glaucoma was significantly lower in men and people who lived in Hume Region compared with all Victorian men and adults, respectively. There were no other significant regional differences for glaucoma.

There were no significant regional differences in the prevalence of diabetic retinopathy for men, women or all Victorian adults.

The prevalence of macular degeneration was significantly higher in men and adults who lived in Gippsland Region compared with all Victorian men and adults, respectively. There were no other significant regional differences for macular degeneration.

Table 6.14: Prevalence of selected eye diseases, by Department of Health region and sex, Victoria, 2011–12

Region	Cataract			Glaucoma			Diabetic retinopathy			Macular degeneration			Never seen an eye specialist		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Males															
Eastern Metropolitan	8.0	6.7	9.5	2.1	1.5	2.9	0.5*	0.3	0.9	2.3	1.7	3.2	19.2	16.3	22.6
North & West Metropolitan	7.3	6.4	8.3	2.7	2.0	3.6	0.5*	0.3	0.9	1.3	0.9	1.8	23.9	21.6	26.3
Southern Metropolitan	7.6	6.6	8.8	2.4	1.8	3.1	0.8*	0.4	1.4	1.7	1.2	2.4	25.3	22.5	28.4
Metropolitan males	7.6	7.0	8.3	2.4	2.0	2.9	0.6	0.4	0.8	1.7	1.4	2.1	23.1	21.5	24.7
Barwon-South Western	7.2	6.0	8.7	2.3	1.5	3.5	**	**	**	1.0	0.6	1.7	27.3	20.0	36.0
Gippsland	7.5	6.5	8.7	2.4	1.6	3.7	1.1*	0.6	2.0	2.8	2.0	3.8	26.1	22.1	30.5
Grampians	5.7	4.7	6.9	1.8	1.3	2.7	0.7*	0.4	1.2	1.2	0.8	1.7	26.0	21.6	30.9
Hume	7.5	6.6	8.6	1.3	1.0	1.8	0.3*	0.2	0.6	1.6	1.1	2.2	28.3	24.3	32.7
Loddon Mallee	7.7	6.5	9.0	1.5	1.0	2.1	0.3*	0.1	0.5	1.8	1.2	2.7	27.6	23.3	32.4
Rural males	7.3	6.7	7.9	2.0	1.6	2.4	0.6	0.4	0.8	1.6	1.3	1.9	27.2	24.3	30.3
Total	7.5	7.1	8.0	2.3	2.0	2.6	0.6	0.4	0.8	1.7	1.5	2.0	24.0	22.6	25.5

Data were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

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

Table 6.14: Prevalence of selected eye diseases, by Department of Health region and sex, Victoria, 2011–12 (continued)

Region	Cataract			Glaucoma			Diabetic retinopathy			Macular degeneration			Never seen an eye specialist		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Females															
Eastern Metropolitan	10.5	9.6	11.5	2.1	1.6	2.8	0.3*	0.1	0.6	1.8	1.3	2.3	13.9	11.4	16.9
North & West Metropolitan	10.7	9.8	11.6	1.9	1.6	2.4	0.8	0.5	1.3	1.9	1.5	2.4	18.1	16.4	19.9
Southern Metropolitan	10.0	9.2	10.9	2.5	2.0	3.2	0.4*	0.2	0.7	1.8	1.4	2.4	17.7	15.4	20.2
Metropolitan females	10.5	9.9	11.0	2.2	1.9	2.6	0.5	0.4	0.8	1.8	1.6	2.2	17.1	15.8	18.4
Barwon-South Western	8.5	7.3	9.9	1.9	1.3	2.7	**	**	**	1.8*	1.0	3.1	14.1	10.3	18.9
Gippsland	9.4	8.2	10.9	2.6	2.0	3.4	0.2*	0.1	0.6	2.4	1.9	3.1	14.6	12.1	17.5
Grampians	8.6	7.5	9.9	1.5	1.0	2.2	0.5*	0.2	1.1	1.5	1.0	2.3	18.3	14.8	22.2
Hume	8.7	7.8	9.7	1.8	1.3	2.5	0.4*	0.2	0.6	1.7	1.3	2.2	15.7	13.4	18.4
Loddon Mallee	9.2	8.3	10.2	2.1	1.5	2.9	**	**	**	2.6	1.9	3.7	12.0	10.1	14.2
Rural females	9.0	8.5	9.6	2.0	1.7	2.3	0.4*	0.2	0.7	2.0	1.7	2.4	14.7	13.1	16.4
Total	10.0	9.6	10.4	2.1	1.9	2.4	0.5	0.4	0.7	1.9	1.7	2.1	16.6	15.6	17.7

Data were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

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

Table 6.14: Prevalence of selected eye diseases, by Department of Health region and sex, Victoria, 2011–12 (continued)

Region	Cataract			Glaucoma			Diabetic retinopathy			Macular degeneration			Never seen an eye specialist			
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	
Persons																
Eastern Metropolitan	9.4	8.6	10.3	2.1	1.7	2.7	0.4*	0.2	0.6	2.0	1.6	2.5	16.7	14.7	18.9	
North & West Metropolitan	9.1	8.5	9.8	2.3	1.9	2.7	0.7	0.5	0.9	1.6	1.3	1.9	20.9	19.5	22.5	
Southern Metropolitan	9.0	8.3	9.7	2.4	2.0	2.9	0.6	0.4	0.9	1.8	1.4	2.2	21.5	19.6	23.4	
Metropolitan persons	9.2	8.8	9.6	2.3	2.1	2.6	0.6	0.4	0.7	1.8	1.6	2.0	20.0	19.0	21.1	
Barwon-South Western	8.0	7.0	9.0	2.1	1.6	2.8	0.5*	0.2	1.0	1.4	1.0	2.1	20.6	16.2	25.9	
Gippsland	8.5	7.7	9.4	2.6	2.0	3.3	0.7*	0.4	1.1	2.5	2.1	3.1	20.4	18.0	23.2	
Grampians	7.3	6.5	8.1	1.6	1.2	2.2	0.6	0.4	0.9	1.3	1.0	1.8	21.6	18.7	24.8	
Hume	8.1	7.5	8.8	1.6	1.3	2.0	0.3	0.2	0.5	1.6	1.3	2.0	22.0	19.6	24.5	
Loddon Mallee	8.6	7.8	9.5	1.8	1.4	2.3	**	**	**	2.2	1.7	2.9	20.2	17.1	23.7	
Rural persons	8.2	7.8	8.6	2.0	1.7	2.2	0.5	0.4	0.7	1.8	1.6	2.1	21.0	19.2	22.8	
Total	8.9	8.6	9.2	2.2	2.0	2.4	0.5	0.4	0.7	1.8	1.7	2.0	20.3	19.4	21.2	

Data were age-standardised to the 2011 Victorian population.

LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.

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

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

Reference

Access Economics 2010, *Clear focus: the economic impact of vision loss in Australia in 2009. An overview of the report prepared for Vision 2020 Australia by Access Economics Pty Limited*, Access Economics, Melbourne.