

### 3. Biomedical checks and cancer screening

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





## 3. Biomedical checks and cancer screening

### Introduction

Respondents were asked about visits to their general practitioner (GP), checks for blood pressure, blood cholesterol levels, blood glucose levels and cancer screening for bowel, cervical and breast cancer. Chapter 6 contains additional data in relation to vision testing and chapter 9 reports on individuals who sought professional help for a mental health problem.

### Survey results

#### Visits to a doctor or general practitioner

- A higher proportion of women aged 18 years or over (64.7 per cent) had consulted a doctor or GP about their own health in the three months preceding the survey compared with their male (55.0 per cent) counterparts.
- A lower proportion of adults who live in rural Victoria reported visiting a doctor or GP in the three months preceding the survey compared with those who lived in metropolitan Victoria.
- A higher proportion of adults who live in the LGAs of Hume (C), Moonee Valley (C), Wellington (S) and Wyndham (C) reported they had visited a doctor or GP less than three months prior to the survey compared with all Victorians.
- There were four LGAs where the proportion of adults who reported they had visited a doctor or GP less than three months prior to the survey was lower compared with all Victorians – Benalla (RC), Colac-Otway (S), Hindmarsh (S) and Indigo (S).

#### Biomedical checks

- In 2011–12, 82.3 per cent of Victorian adults reported having had their blood pressure checked, 60.8 per cent reported having had their blood cholesterol checked and more than half (56.1 per cent) reported having had their blood glucose checked in the two years preceding the survey.
- The proportion of adults who had had a blood pressure check or blood glucose check in the previous two years was similar between metropolitan and rural areas of the state. A higher proportion of adults from metropolitan areas of Victoria reported having had a cholesterol check in the previous two years compared with rural Victoria.
- A higher proportion of adults in the LGA of Moreland (C) reported having had a blood pressure check in the two years preceding the survey compared with all Victorian adults. By contrast the proportion of adults who reported having had a blood pressure check in the previous two years was lower in the LGAs of Pyrenees (S) and Surf Coast (S) compared with all Victorian adults.
- The proportion of adults who reported having had a cholesterol check in the preceding two years was higher in the LGAs of Greater Dandenong (C), Melton (S) and Whittlesea (C) compared with all Victorian adults.

- By contrast there were 17 LGAs where the proportion of adults who reported having had a cholesterol check in the previous two years was lower compared with all Victorian adults – Alpine (S), Ballarat (C), Baw Baw (S), Central Goldfields (S), Colac-Otway (S), Golden Plains (S), Hindmarsh (S), Indigo (S), Loddon (S), Mansfield (S), Mount Alexander (S), Pyrenees (S), Queenscliffe (B), South Gippsland (S), Southern Grampians (S), Surf Coast (S) and West Wimmera (S).
- A higher proportion of adults who lived in the LGAs of Greater Dandenong (C), Latrobe (C), Melton (S) and Whittlesea (C) reported having had a blood glucose check in the previous two years compared with all Victorian adults. By contrast there were 10 LGAs where the proportion of people who reported having had a blood glucose check in the previous two years was lower compared with all Victorian adults – Benalla (RC), Boroondara (C), Golden Plains (S), Hepburn (S), Mansfield (S), Queenscliffe (B), South Gippsland (S), Southern Grampians (S), Surf Coast (S) and Yarra (C).

#### Bowel cancer screening and detection

- Among the Victorian adults surveyed who were aged 50 years or over, 48.6 per cent indicated they had received a faecal occult blood test (FOBT) kit in the mail. Of these, 61.2 per cent indicated that they had completed and returned the kit for testing. Overall, a higher proportion of people aged 50 years or over who lived in rural compared with metropolitan Victoria completed and returned the FOBT kits for testing.
- Specifically, there were 10 LGAs where a higher proportion of people aged 50 years or over completed and returned the FOBT kits for testing compared with all Victorians aged 50 years or over – Baw Baw (S), Benalla (RC), East Gippsland (S), Gannawarra (S), Greater Dandenong (C), Greater Shepparton (C), Indigo (S), Queenscliffe (B), Wodonga (RC) and Yarra Ranges (S).
- By contrast there were six LGAs where a lower proportion of people completed and returned the FOBT kits for testing compared with all Victorian people, aged 50 years or over – Campaspe (S), Casey (C), Hume (C), Knox (C), Moira (S) and Moorabool (S).
- Furthermore, 30.5 per cent of all Victorian adults aged 50 years or over reported having a bowel examination to detect cancer in the two years preceding the survey. Of these, 69.7 per cent reported having had a colonoscopy, with a higher proportion of women reporting having had a colonoscopy compared with their male counterparts.
- A higher proportion of people aged 50 years or over who live in metropolitan Victoria reported having had a colonoscopy in the two years preceding the survey compared with those who live in rural Victoria.

### Breast cancer screening and detection

- Among women aged 50 years or over, 88.2 per cent indicated having ever had a mammogram as a health check. Of these, 69.7 per cent reported having a mammogram in the previous two years. The proportion of mammogram health checks was significantly higher in those aged 60–79 years compared with all Victorian women aged 50 years or over.
- The majority of mammograms were carried out through BreastScreen Victoria (68.5 per cent), and this was highest in women aged 60–69 years (76.1 per cent). There was no difference in the proportion of women who received mammograms through BreastScreen Victoria in rural compared with metropolitan Victoria.
- There were seven LGAs where a higher proportion of women aged 50 years or over reported having had a mammogram in the previous two years compared with all Victorian women aged 50 years or over – Brimbank (C), Glenelg (S), Mansfield (S), Monash (C), Southern Grampians (S), Swan Hill (RC) and Wangaratta (RC).
- By contrast the proportion of women aged 50 years or over who reported having had a mammogram in the previous two years was lower in the LGAs of Cardinia (S), Hepburn (S) and Moorabool (S) compared with all Victorian women aged 50 years or over.
- Of the women aged 50 years or over who reported having had a mammogram in the previous two years, 85.2 per cent indicated this was as a routine health check. This included women who indicated they had a genetic predisposition to breast cancer or were on hormone replacement therapy. Of the remaining women, 7.4 per cent indicated that they had breast cancer and needed to be checked regularly, 6.4 per cent had a lump or symptom that was being investigated and 0.8 per cent gave other reasons.

### Cervical cancer screening

- Overall, 86.2 per cent of Victorian women aged 18 years or over have had a Pap test at some time. Of these, 70.8 per cent reported having one in the previous two years.
- Overall, a higher proportion of women aged 18 years or over who live in rural compared with metropolitan Victoria have had a Pap test. However, a lower proportion of women who live in rural compared with metropolitan Victoria reported having had a Pap test in the two years preceding the survey.
- There were seven LGAs where the proportion of women aged 18 years or over who reported having had a Pap test in the previous two years was higher compared with all Victorian women – Bayside (C), Glen Eira (C), Hobsons Bay (C), Melbourne (C), Mount Alexander (S), Stonnington (C) and Yarra (C).
- By contrast there were seven LGAs where a lower proportion of women reported having had a Pap test in the previous two years compared with all Victorian women – Central Goldfields (S), Corangamite (S), Hindmarsh (S), Moorabool (S), South Gippsland (S), Warrnambool (S) and Wodonga (S).

### 3.1 Visits to a doctor or general practitioner

Respondents were asked ‘When was the last time you consulted a doctor or general practitioner (GP) about your own health?’ Table 3.1 shows the most recent visit to a doctor or GP, by age group and sex. The majority of men (55.0 per cent) and women (64.7 per cent) had visited a doctor or GP less than three months prior to the survey. By contrast almost no one had not visited a doctor or GP and 15.7 per cent of men and 7.7 per cent of women had visited a doctor or GP 12 months or more prior to the survey.

A significantly higher proportion of women, particularly those aged 18–54 years, had visited a doctor or GP less than three months prior to the survey compared with their male counterparts. There was no difference between the sexes for those who had visited a doctor or GP three to less than six months prior to the interview. By contrast a significantly higher proportion of men, particularly those aged 45–54 and 65 years or over, had visited a doctor or GP six to less than 12 months prior to the survey interview compared with their female counterparts. Similarly, a significantly higher proportion of men, particularly those aged 18–54 years, had visited a doctor or GP 12 months or more prior to the survey interview compared with their female counterparts.

The proportion of men and women aged 55 years or over who had visited their doctor or GP less than three months prior to the interview was significantly higher compared with all Victorian men and women. By contrast the proportion of men and women aged 18–44 years and people aged 18–54 years was significantly lower compared with all Victorian men, women and people, respectively.



Table 3.1: Last visit to a doctor or general practitioner, by age group and sex, Victoria, 2011–12

Age group (years)	< 3 months ago			3 to < 6 months ago			6 to < 12 months ago			12 months ago or more			Have never consulted a doctor		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL		LL	UL		LL	UL
<b>Males</b>															
18–24	38.4	33.0	44.1	21.4	17.3	26.2	13.6	9.8	18.7	25.1	20.4	30.6	**	**	**
25–34	43.7	38.7	48.8	17.9	14.4	22.1	14.3	11.3	17.9	22.6	18.5	27.2	**	**	**
35–44	45.3	42.2	48.5	18.7	16.4	21.4	15.3	13.1	17.8	19.8	17.4	22.4	0.4*	0.2	0.8
45–54	51.1	48.3	53.8	19.8	17.6	22.2	12.9	11.3	14.8	15.7	13.7	17.9	**	**	**
55–64	67.2	64.7	69.6	15.8	14.0	17.8	8.6	7.2	10.3	8.1	6.8	9.6	**	**	**
65+	81.9	80.2	83.5	10.4	9.2	11.8	4.3	3.6	5.3	3.2	2.6	4.0	0.0	-	-
<b>Total</b>	<b>55.0</b>	<b>53.5</b>	<b>56.5</b>	<b>17.0</b>	<b>15.9</b>	<b>18.2</b>	<b>11.6</b>	<b>10.6</b>	<b>12.7</b>	<b>15.7</b>	<b>14.4</b>	<b>17.0</b>	<b>0.0</b>	<b>-</b>	<b>-</b>
<b>Females</b>															
18–24	58.1	52.7	63.4	22.0	17.7	27.0	12.3	9.0	16.5	7.2	5.0	10.5	0.0	-	-
25–34	59.6	55.8	63.3	21.2	18.1	24.6	10.3	8.2	12.8	8.4	6.6	10.7	**	**	**
35–44	54.1	51.7	56.5	20.8	18.9	22.8	13.2	11.7	15.0	11.5	10.1	13.1	**	**	**
45–54	62.4	60.2	64.5	17.5	15.9	19.2	9.8	8.6	11.2	10.2	9.0	11.6	**	**	**
55–64	68.8	66.7	70.7	17.4	15.8	19.1	6.7	5.7	7.9	6.9	5.9	8.1	**	**	**
65+	84.2	82.9	85.5	10.5	9.5	11.6	2.8	2.3	3.4	2.2	1.7	2.8	**	**	**
<b>Total</b>	<b>64.7</b>	<b>63.4</b>	<b>65.9</b>	<b>18.1</b>	<b>17.1</b>	<b>19.2</b>	<b>9.1</b>	<b>8.4</b>	<b>10.0</b>	<b>7.7</b>	<b>7.1</b>	<b>8.4</b>	<b>0.0</b>	<b>-</b>	<b>-</b>
<b>Persons</b>															
18–24	48.0	44.1	52.0	21.7	18.6	25.1	13.0	10.4	16.2	16.4	13.6	19.7	**	**	**
25–34	51.6	48.4	54.7	19.5	17.2	22.2	12.3	10.4	14.4	15.5	13.2	18.2	**	**	**
35–44	49.8	47.8	51.8	19.8	18.2	21.4	14.2	12.9	15.7	15.6	14.2	17.1	0.2*	0.1	0.4
45–54	56.8	55.0	58.6	18.6	17.2	20.0	11.3	10.3	12.5	12.9	11.7	14.2	**	**	**
55–64	68.0	66.4	69.6	16.7	15.4	17.9	7.7	6.8	8.6	7.5	6.7	8.4	**	**	**
65+	83.2	82.1	84.2	10.5	9.6	11.3	3.5	3.0	4.0	2.7	2.3	3.1	**	**	**
<b>Total</b>	<b>59.9</b>	<b>58.9</b>	<b>60.9</b>	<b>17.5</b>	<b>16.8</b>	<b>18.3</b>	<b>10.4</b>	<b>9.7</b>	<b>11.0</b>	<b>11.7</b>	<b>11.0</b>	<b>12.5</b>	<b>0.0</b>	<b>-</b>	<b>-</b>

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

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

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

\* Estimate has a relative standard error (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 3.2 shows the most recent visit to a doctor or GP, by Department of Health region and sex. There was a significantly lower proportion of people who had visited a doctor or GP in the three months prior to the interview who lived in rural compared with metropolitan Victoria. There were no other significant regional differences with the exception that the proportion of people residing in the Eastern Metropolitan Region who consulted a doctor or GP six to less than 12 months prior to the interview was significantly higher compared with all Victorians.

Table 3.2: Last visit to a doctor or GP, by Department of Health region and sex, Victoria, 2011–12

Region	< 3 months ago			3 to < 6 months ago			6 to < 12 months ago			12 months ago or more			Have never consulted a doctor		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
<b>Males</b>															
Eastern Metropolitan	55.0	51.2	58.6	15.5	12.8	18.6	14.7	11.9	17.9	14.2	11.6	17.2	**	**	**
North & West Metropolitan	56.2	53.6	58.8	18.0	16.0	20.2	10.0	8.5	11.7	15.5	13.4	17.8	**	**	**
Southern Metropolitan	55.8	52.5	59.0	16.0	13.8	18.5	10.9	9.1	13.0	16.0	13.5	18.8	**	**	**
<b>Metropolitan males</b>	55.8	54.0	57.6	16.8	15.5	18.2	11.5	10.4	12.8	15.2	13.8	16.7	0.4*	0.2	0.9
Barwon-South Western	51.5	44.5	58.4	17.1	12.9	22.3	13.6	8.8	20.4	17.5	11.5	25.8	**	**	**
Gippsland	52.7	48.3	57.0	16.7	13.2	20.8	12.2	9.4	15.7	17.8	14.2	22.2	**	**	**
Grampians	54.0	49.1	58.8	18.8	14.9	23.5	11.4	8.7	14.8	14.7	11.7	18.2	**	**	**
Hume	53.3	48.9	57.7	19.6	15.9	23.8	9.3	7.3	11.7	17.0	14.0	20.4	**	**	**
Loddon Mallee	49.8	45.5	54.1	16.6	13.5	20.2	13.9	10.3	18.5	18.7	13.4	25.5	**	**	**
<b>Rural males</b>	52.4	49.4	55.3	17.8	15.9	20.0	12.0	9.8	14.5	17.1	14.6	20.0	0.3*	0.1	0.5
<b>Total</b>	<b>55.0</b>	<b>53.5</b>	<b>56.5</b>	<b>17.0</b>	<b>15.9</b>	<b>18.2</b>	<b>11.6</b>	<b>10.6</b>	<b>12.7</b>	<b>15.7</b>	<b>14.4</b>	<b>17.0</b>	<b>0.4*</b>	<b>0.2</b>	<b>0.7</b>
<b>Females</b>															
Eastern Metropolitan	63.1	59.5	66.6	18.1	15.5	20.9	10.9	8.6	13.7	7.6	6.1	9.4	0.0	-	-
North & West Metropolitan	67.7	65.6	69.7	16.4	14.9	18.1	8.5	7.2	9.9	7.2	6.0	8.5	**	**	**
Southern Metropolitan	64.7	61.9	67.3	19.7	17.4	22.2	8.3	6.9	9.9	7.1	5.9	8.6	0.0	-	-
<b>Metropolitan females</b>	65.5	64.0	66.9	17.9	16.7	19.2	9.0	8.1	10.0	7.3	6.6	8.2	**	**	**
Barwon-South Western	60.4	54.9	65.7	21.9	17.2	27.5	7.5	5.4	10.3	9.6	7.4	12.3	**	**	**
Gippsland	64.8	61.2	68.1	16.0	13.4	19.0	10.8	8.6	13.5	8.0	6.5	9.8	0.0	-	-
Grampians	63.2	59.2	67.1	18.0	14.9	21.6	8.9	7.0	11.4	9.1	6.9	12.0	**	**	**
Hume	63.1	59.9	66.1	17.9	15.3	20.9	9.3	7.6	11.3	9.6	8.0	11.5	0.0	-	-
Loddon Mallee	62.9	58.3	67.3	18.7	14.8	23.3	10.6	7.9	14.2	7.5	5.9	9.4	**	**	**
<b>Rural females</b>	62.5	60.4	64.6	18.8	16.8	20.8	9.4	8.3	10.7	8.9	7.9	9.9	0.1	0.0	0.1
<b>Total</b>	<b>64.7</b>	<b>63.4</b>	<b>65.9</b>	<b>18.1</b>	<b>17.1</b>	<b>19.2</b>	<b>9.1</b>	<b>8.4</b>	<b>10.0</b>	<b>7.7</b>	<b>7.1</b>	<b>8.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Table 3.2: Last visit to a doctor or GP, by Department of Health region and sex, Victoria, 2011–12 (continued)

Region	< 3 months ago			3 to < 6 months ago			6 to < 12 months ago			12 months ago or more			Have never consulted a doctor		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
<b>Persons</b>															
Eastern Metropolitan	59.1	56.5	61.6	16.7	14.8	18.7	<b>12.9</b>	11.0	15.1	10.8	9.3	12.6	**	**	**
North & West Metropolitan	62.0	60.3	63.6	17.2	15.9	18.6	9.2	8.2	10.3	11.3	10.1	12.7	0.1*	0.0	0.2
Southern Metropolitan	60.3	58.1	62.3	17.9	16.3	19.7	9.6	8.5	10.9	11.5	10.0	13.1	**	**	**
<b>Metropolitan persons</b>	60.7	59.5	61.8	17.3	16.4	18.2	10.2	9.5	11.0	11.3	10.4	12.2	0.2*	0.1	0.4
<b>Barwon-South Western</b>	56.2	51.2	61.1	19.3	15.8	23.4	10.2	7.3	14.1	13.8	10.2	18.4	0.1*	0.1	0.3
<b>Gippsland</b>	59.0	56.0	61.9	16.2	14.0	18.7	11.3	9.5	13.5	12.9	10.9	15.3	**	**	**
<b>Grampians</b>	58.6	55.3	61.8	18.5	15.9	21.6	10.1	8.3	12.2	11.9	10.0	14.2	**	**	**
<b>Hume</b>	58.0	55.2	60.7	18.9	16.6	21.5	9.2	7.9	10.7	13.4	11.6	15.4	**	**	**
<b>Loddon Mallee</b>	56.3	52.7	59.7	17.5	14.7	20.6	12.5	10.0	15.6	13.1	9.8	17.3	**	**	**
<b>Rural persons</b>	57.5	55.6	59.3	18.2	16.8	19.7	10.7	9.4	12.0	13.1	11.6	14.7	0.2*	0.1	0.3
<b>Total</b>	<b>59.9</b>	<b>58.9</b>	<b>60.9</b>	<b>17.5</b>	<b>16.8</b>	<b>18.3</b>	<b>10.4</b>	<b>9.7</b>	<b>11.0</b>	<b>11.7</b>	<b>11.0</b>	<b>12.5</b>	<b>0.2*</b>	<b>0.1</b>	<b>0.4</b>

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.

Data were age-standardised to the 2011 Victorian population.

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

\* Estimate has a relative standard error (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.

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

# Biomedical checks and cancer screening



Table 3.3 shows the most recent visit to a doctor or GP, by LGA. The proportion of people who had visited a doctor or GP less than three months prior to the survey was significantly higher in those who lived in the LGAs of Hume (C), Moonee Valley (C), Wellington (S) and Wyndham (C) compared with all Victorians. By contrast the proportion of people who had visited a doctor or GP less than three months prior to the survey was significantly lower in those who lived in the LGAs of Benalla (RC), Colac-Otway (S), Hindmarsh (S) and Indigo (S) compared with all Victorians.

The proportion of people who had visited a doctor or GP 12 months or more prior to the survey interview was significantly higher in those who lived in the LGAs of Indigo (S) and Mansfield (S) compared with all Victorians.

Table 3.3: Last visit to a doctor or GP, by LGA, Victoria, 2011–12

LGA	< 3 months ago			3 to < 6 months ago			6 to < 12 months ago			12 months ago or more		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL		LL	UL
Alpine (S)	60.7	50.5	70.1	13.0	9.3	17.9	7.9	5.2	12.0	18.3*	10.9	29.2
Ararat (RC)	66.1	59.1	72.5	15.3	10.8	21.2	10.7	6.8	16.5	7.5	4.8	11.7
Ballarat (C)	62.8	56.3	68.9	17.0	12.2	23.2	9.1	6.2	13.2	10.6	7.3	15.2
Banyule (C)	64.6	58.3	70.4	15.3	10.9	21.2	11.4	7.3	17.3	8.7	5.4	13.8
Bass Coast (S)	68.2	59.9	75.5	13.5	8.4	21.0	6.2	3.8	10.0	11.6	7.1	18.4
Baw Baw (S)	55.7	49.2	62.0	17.6	12.8	23.6	11.6	7.9	16.5	13.5	9.2	19.5
Bayside (C)	54.4	46.7	62.0	17.4	12.0	24.6	13.3	8.2	20.7	14.6	9.2	22.5
Benalla (RC)	49.1	39.6	58.6	21.0	13.4	31.5	9.7	7.0	13.3	18.8	12.2	27.9
Boroondara (C)	60.1	53.4	66.5	13.6	9.5	19.0	15.7	11.0	21.7	10.2	6.5	15.8
Brimbank (C)	57.3	51.7	62.7	20.1	15.7	25.5	10.3	7.3	14.3	11.6	8.2	16.1
Buloke (S)	59.0	50.9	66.6	21.6	15.2	29.7	7.9	5.4	11.6	11.4	7.6	16.6
Campaspe (S)	52.9	46.1	59.6	19.7	14.0	27.1	12.1	7.3	19.2	14.4	9.9	20.5
Cardinia (S)	57.3	51.6	62.8	19.6	15.1	25.0	11.1	8.0	15.1	11.7	8.3	16.2
Casey (C)	63.0	57.1	68.5	17.0	12.8	22.3	6.5	4.4	9.5	12.3	8.4	17.6
Central Goldfields (S)	54.7	47.8	61.4	19.0	11.7	29.3	14.3*	6.7	27.7	9.5	6.2	14.3
Colac-Otway (S)	50.8	43.7	57.8	20.5	15.1	27.2	13.4	8.5	20.4	15.1	10.9	20.5
Corangamite (S)	52.8	44.9	60.6	22.7	15.9	31.4	11.3	7.4	17.0	13.2	10.0	17.2
Darebin (C)	57.8	51.8	63.6	16.5	12.4	21.6	10.5	7.5	14.6	15.2	10.7	21.0
East Gippsland (S)	55.7	48.6	62.6	18.0	13.0	24.3	14.2	9.3	21.1	12.1	8.5	17.0
Frankston (C)	58.9	52.3	65.2	19.8	14.8	25.8	10.4	7.3	14.6	10.9	7.1	16.4
Gannawarra (S)	57.8	49.3	65.9	15.8	10.4	23.4	12.3	7.8	18.8	13.5	8.9	20.0
Glen Eira (C)	59.2	52.6	65.4	17.2	13.0	22.3	15.8	11.3	21.7	7.8	4.9	12.3
Glenelg (S)	55.8	50.6	60.9	16.5	10.9	24.2	11.9*	6.6	20.7	15.5	9.4	24.5
Golden Plains (S)	52.4	45.2	59.5	20.1	14.7	27.0	10.2	6.2	16.3	16.8	11.1	24.6
Greater Bendigo (C)	56.0	47.8	64.0	15.2	9.9	22.7	13.0	8.1	20.2	15.0*	8.3	25.5
Greater Dandenong (C)	63.2	57.6	68.5	18.8	14.6	24.0	7.7	5.1	11.4	8.8	5.8	13.1
Greater Geelong (C)	55.7	48.0	63.1	20.9	15.8	27.1	9.5*	5.2	17.0	13.5	8.6	20.5
Greater Shepparton (C)	57.6	49.6	65.3	24.3	17.2	33.1	6.6	4.5	9.7	10.3	6.6	15.7
Hepburn (S)	52.6	44.7	60.3	18.1	12.7	25.0	13.2*	6.8	24.0	15.9*	8.8	27.2
Hindmarsh (S)	49.2	43.8	54.5	24.7	17.5	33.6	13.0*	7.4	21.8	11.5*	6.6	19.2
Hobsons Bay (C)	59.1	52.6	65.3	15.6	11.7	20.4	12.5	8.6	17.7	12.9	8.5	19.0
Horsham (RC)	55.9	45.8	65.6	22.9	13.8	35.7	7.5	4.9	11.2	11.9	7.9	17.5
Hume (C)	67.5	61.8	72.8	15.4	11.5	20.4	6.6	4.3	10.0	10.0	6.7	14.6
Indigo (S)	50.9	43.9	57.9	18.2	13.2	24.6	11.9	7.8	17.8	18.3	12.7	25.7
Kingston (C)	59.1	52.2	65.5	18.4	13.4	24.9	8.1	5.2	12.3	14.4	9.9	20.5
Knox (C)	56.5	50.5	62.4	19.3	15.0	24.4	13.5	9.4	19.0	9.5	6.7	13.3
Latrobe (C)	58.5	52.3	64.4	15.6	11.4	21.0	11.8	8.3	16.6	13.9	9.6	19.8
Loddon (S)	58.4	49.3	66.9	21.2	13.4	31.9	10.1	6.3	15.8	9.3	6.2	13.7
Macedon Ranges (S)	56.7	49.9	63.3	13.9	10.4	18.3	13.1	9.0	18.7	15.2	10.4	21.6
Manningham (C)	63.6	56.4	70.2	18.0	12.8	24.6	9.2	6.0	13.9	9.2	5.6	14.5
Mansfield (S)	51.8	44.4	59.2	15.1	10.3	21.5	10.0	6.6	14.8	23.1	16.1	31.8
Maribyrnong (C)	61.2	54.6	67.5	17.4	13.3	22.4	10.3	6.9	15.1	10.6	7.1	15.5

Table 3.3: Last visit to a doctor or GP, by LGA, Victoria, 2011–12 (continued)

LGA	< 3 months ago			3 to < 6 months ago			6 to < 12 months ago			12 months ago or more		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL		LL	UL
Maroondah (C)	61.2	54.8	67.3	14.6	10.8	19.3	11.7	7.7	17.5	12.2	8.7	16.9
Melbourne (C)	57.8	51.7	63.7	18.7	14.3	24.1	8.1	5.3	12.1	15.2	10.7	21.1
Melton (S)	63.4	57.8	68.8	19.6	15.2	24.8	6.8	4.7	9.8	9.6	6.7	13.5
Mildura (RC)	62.3	55.5	68.6	19.1	13.8	26.0	9.0	5.9	13.3	9.7*	5.5	16.4
Mitchell (S)	63.5	56.6	69.9	12.8	8.6	18.5	7.8	5.2	11.4	15.6	10.6	22.4
Moira (S)	51.9	44.5	59.1	19.3	14.5	25.1	15.0	9.5	23.0	11.0	7.2	16.3
Monash (C)	54.1	47.8	60.3	18.3	13.7	23.9	12.3	8.1	18.4	14.4	10.1	20.1
Moonee Valley (C)	69.6	63.1	75.4	11.8	8.6	15.9	9.6	6.2	14.6	8.9*	5.1	15.0
Moorabool (S)	53.8	47.5	60.1	19.8	14.9	25.9	12.1	8.1	17.5	12.0	8.1	17.5
Moreland (C)	59.2	52.8	65.2	20.7	15.7	26.8	9.2	6.1	13.5	10.7	6.6	16.9
Mornington Peninsula (S)	55.2	48.2	62.0	16.3	11.3	23.0	13.7	9.0	20.4	14.0	9.7	19.7
Mount Alexander (S)	57.9	50.0	65.4	16.7	11.5	23.7	16.3	10.3	24.7	9.0*	5.3	14.8
Moyne (S)	57.2	49.0	65.1	16.6	10.9	24.4	9.3	5.8	14.5	16.9	11.4	24.2
Murrindindi (S)	66.4	57.9	73.9	15.4	9.6	23.6	6.7*	3.9	11.3	11.4	7.8	16.4
Nilumbik (S)	56.2	49.5	62.7	20.6	15.3	27.2	9.7	6.1	15.1	13.4	9.6	18.5
Northern Grampians (S)	57.5	47.4	66.9	23.7	14.1	36.9	8.7*	4.5	16.1	10.0	6.8	14.5
Port Phillip (C)	61.9	54.4	68.8	18.7	13.7	25.0	5.2	3.5	7.8	11.7	7.3	18.1
Pyrenees (S)	61.8	50.2	72.2	19.4*	10.4	33.4	6.8*	4.1	11.0	11.2*	6.1	19.7
Queenscliffe (B)	53.1	43.3	62.6	19.3	12.8	28.1	10.1*	5.3	18.4	17.5*	9.9	29.2
South Gippsland (S)	53.2	44.7	61.6	15.3	11.3	20.5	12.2	7.4	19.4	16.7	10.3	26.0
Southern Grampians (S)	57.7	48.4	66.4	15.1	9.2	23.7	13.6	9.6	18.9	12.1	8.5	17.0
Stonnington (C)	59.9	53.5	66.1	20.1	15.4	25.7	8.5	5.6	12.8	10.3	6.7	15.5
Strathbogie (S)	55.3	44.6	65.5	21.5*	12.1	35.4	9.8*	5.2	17.6	13.3	8.6	20.0
Surf Coast (S)	60.2	51.9	68.0	16.2	11.1	23.0	12.6*	7.6	20.3	10.7	6.5	17.1
Swan Hill (RC)	57.1	49.8	64.1	20.8	15.0	28.1	10.4	7.2	14.7	11.3	7.5	16.6
Towong (S)	52.8	45.0	60.6	17.5	13.7	22.0	10.7	7.5	14.9	19.0	12.5	27.9
Wangaratta (RC)	53.4	46.4	60.2	23.6	17.7	30.7	9.7	6.3	14.8	13.2	9.0	18.8
Warrnambool (C)	58.5	52.3	64.5	16.2	11.8	21.8	10.1	6.6	15.3	14.3	9.7	20.6
Wellington (S)	67.1	60.9	72.8	14.0	10.3	18.8	8.9	6.4	12.2	9.9	6.6	14.6
West Wimmera (S)	55.6	49.2	61.8	14.0	10.2	19.0	15.2	10.3	21.7	14.6	10.3	20.3
Whitehorse (C)	57.9	51.2	64.3	18.4	13.5	24.7	13.5	9.1	19.7	9.9	6.7	14.3
Whittlesea (C)	63.6	58.0	68.8	17.1	13.3	21.7	7.2	4.7	11.0	12.1	8.5	16.9
Wodonga (RC)	61.2	54.5	67.5	18.8	13.4	25.6	8.8	5.7	13.4	10.8	6.7	17.0
Wyndham (C)	66.5	61.0	71.5	17.8	13.7	22.7	5.8	3.7	8.9	9.4	6.3	13.9
Yarra (C)	62.2	54.3	69.5	16.4	11.9	22.3	10.6*	6.1	17.8	10.1	7.0	14.3
Yarra Ranges (S)	62.6	55.7	69.0	16.3	11.2	23.0	10.9	7.4	15.8	10.3	7.0	14.7
Yarriambiack (S)	61.9	53.7	69.5	20.1	14.3	27.5	9.4*	5.3	16.1	8.5	5.8	12.3
<b>Victoria</b>	<b>59.8</b>	<b>58.8</b>	<b>60.8</b>	<b>17.6</b>	<b>16.8</b>	<b>18.4</b>	<b>10.3</b>	<b>9.7</b>	<b>11.0</b>	<b>11.8</b>	<b>11.0</b>	<b>12.5</b>

Data are 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.

Note that estimates may not add to 100 per cent due to a proportion of 'don't know' or 'refused' or 'never' responses, not reported here.

## 3.2 Biomedical checks

A variety of tests may be done by a health professional during a routine physical examination, depending on the individual's age, family history and state of health. Some of the following tests may be done each time the patient visits the doctor and some are necessary only when specific complaints or concerns are raised, or when an individual reaches a certain age or risk category.

Survey respondents were asked whether, in the two years prior to the survey, they had had a blood pressure check, a blood test for cholesterol or a test for diabetes or high glucose (blood sugar) levels.

Table 3.4 shows the proportion of men and women who reported having had a blood pressure, cholesterol or blood glucose check in the previous two years, by age group and sex.

Overall, 82.3 per cent of Victorian adults had had their blood pressure checked in the previous two years and this was significantly higher for women (85.1 per cent) compared with men (79.5 per cent). There was a significantly higher proportion of men, women and adults aged 45 years or over who had had their blood pressure checked compared with all men, women and Victorian adults, respectively. By contrast the proportion was significantly lower in men and people aged 18–34 years and women aged 18–44 years.

Overall, 60.8 per cent of Victorian adults had had their cholesterol checked in the previous two years and this was significantly higher for men (62.6 per cent) compared with women (59.2 per cent). There was a significantly higher proportion of men, women and adults aged 45 years or over who had had their cholesterol checked compared with all men, women and Victorian adults, respectively. By contrast the proportion was significantly lower in men aged 18–34 years and women and adults aged 18–44 years.

Overall, 56.1 per cent of Victorian adults had had their blood glucose checked in the previous two years and there was no difference between men and women. There was a significantly higher proportion of men, women and adults aged 45 years or over who had had their blood glucose checked compared with all men, women and Victorian adults, respectively. By contrast the proportion was significantly lower in men aged 18–34 years and women and people aged 18–44 years.

Table 3.4: Biomedical checks in the past two years, by age group and sex, Victoria, 2011–12

Age group (years)	Blood pressure			Cholesterol			Blood glucose		
	%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL
<b>Males</b>									
18–24	46.5	40.8	52.2	22.7	18.1	28.1	20.3	15.9	25.6
25–34	67.8	63.0	72.3	35.5	30.9	40.4	34.2	29.5	39.2
35–44	78.5	75.8	81.1	61.2	58.0	64.3	52.4	49.2	55.6
45–54	88.5	86.6	90.1	76.5	74.1	78.8	65.9	63.2	68.4
55–64	94.2	92.8	95.3	87.2	85.3	88.8	77.7	75.4	79.8
65+	96.5	95.7	97.2	90.0	88.7	91.2	79.1	77.3	80.8
<b>Total</b>	<b>79.5</b>	<b>78.1</b>	<b>80.8</b>	<b>62.6</b>	<b>61.1</b>	<b>63.9</b>	<b>55.5</b>	<b>54.0</b>	<b>56.9</b>
<b>Females</b>									
18–24	67.8	62.5	72.7	22.5	18.5	27.1	23.0	18.9	27.7
25–34	80.5	77.2	83.4	35.8	32.3	39.5	50.7	46.9	54.4
35–44	81.8	79.8	83.6	53.5	51.1	55.9	52.5	50.2	54.9
45–54	89.3	87.9	90.5	73.7	71.7	75.6	64.2	62.1	66.3
55–64	93.1	91.8	94.1	82.2	80.5	83.8	71.4	69.4	73.3
65+	96.6	95.9	97.2	85.6	84.4	86.8	74.7	73.1	76.2
<b>Total</b>	<b>85.1</b>	<b>84.0</b>	<b>86.1</b>	<b>59.2</b>	<b>58.0</b>	<b>60.3</b>	<b>56.8</b>	<b>55.6</b>	<b>57.9</b>
<b>Persons</b>									
18–24	56.9	52.9	60.8	22.6	19.5	26.1	21.6	18.6	25.1
25–34	74.1	71.2	76.8	35.7	32.7	38.7	42.4	39.3	45.5
35–44	80.2	78.5	81.8	57.3	55.3	59.3	52.5	50.5	54.5
45–54	88.9	87.7	89.9	75.1	73.5	76.5	65.0	63.4	66.7
55–64	93.6	92.7	94.4	84.7	83.4	85.8	74.5	73.0	75.9
65+	96.5	96.0	97.0	87.6	86.7	88.4	76.7	75.5	77.8
<b>Total</b>	<b>82.3</b>	<b>81.4</b>	<b>83.1</b>	<b>60.8</b>	<b>59.9</b>	<b>61.7</b>	<b>56.1</b>	<b>55.1</b>	<b>57.0</b>

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

Data are age-specific estimates, except for 'Total', which represent the estimates for Victoria and were age-standardised to the 2011 Victorian population. Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: **above/below** Victoria.

Table 3.5 shows the proportion of men and women who had had a blood pressure, cholesterol or blood glucose (blood sugar) check in the previous two years, by Department of Health region and sex.

There were no significant regional differences in the proportion of men or women who had had a blood pressure check in the previous two years, with the exception of people who lived in Grampians Region, where the proportion was significantly lower compared with all Victorian adults.

The proportion of men, women and adults who had had a cholesterol check was significantly higher for those who lived in metropolitan compared with rural Victoria. There was also a significantly higher proportion of women who lived in North &

West Metropolitan Region who had had a cholesterol check compared with all women. By contrast a significantly lower proportion of men had had a cholesterol check in the previous two years who lived in Barwon-South Western Region, along with women who lived in Grampians Region and people who lived in Barwon-South Western Region and Grampians Region compared with all men, women and Victorian adults, respectively.

There were no significant regional differences in the proportion of men or people who had had a blood glucose check in the previous two years. However, there was a significantly lower proportion of women who lived in Barwon-South Western Region who had had a blood glucose check compared with all women.

Table 3.5: Biomedical checks in the past two years, by Department of Health region and sex, Victoria, 2011–12

Region	Blood pressure			Cholesterol			Blood glucose		
	%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL
<b>Males</b>									
Eastern Metropolitan	78.2	74.7	81.4	62.3	58.8	65.7	53.0	49.5	56.5
North & West Metropolitan	80.4	78.1	82.5	63.5	61.1	65.8	56.9	54.5	59.3
Southern Metropolitan	80.4	77.4	83.0	64.9	61.9	67.9	56.3	53.2	59.3
<b>Metropolitan males</b>	79.9	78.3	81.4	63.8	62.1	65.4	55.7	54.0	57.4
Barwon-South Western	77.8	69.5	84.4	55.5	51.0	59.9	57.6	49.5	65.3
Gippsland	78.4	74.0	82.3	61.0	56.9	65.0	58.3	53.8	62.6
Grampians	74.1	69.3	78.4	57.3	53.2	61.3	50.9	46.7	55.0
Hume	79.8	75.2	83.8	60.5	56.4	64.6	54.3	50.1	58.4
Loddon Mallee	79.7	75.2	83.5	61.1	56.7	65.4	53.7	49.5	57.8
<b>Rural males</b>	78.0	75.1	80.6	58.8	56.6	60.9	55.1	52.1	58.1
<b>Total</b>	<b>79.5</b>	<b>78.1</b>	<b>80.8</b>	<b>62.6</b>	<b>61.1</b>	<b>63.9</b>	<b>55.5</b>	<b>54.0</b>	<b>56.9</b>
<b>Females</b>									
Eastern Metropolitan	87.7	84.9	90.1	57.6	54.5	60.6	54.6	51.4	57.8
North & West Metropolitan	84.9	83.2	86.5	62.5	60.6	64.3	59.6	57.7	61.6
Southern Metropolitan	84.7	82.3	86.8	59.8	57.3	62.2	56.9	54.3	59.5
<b>Metropolitan females</b>	85.5	84.2	86.7	60.4	59.0	61.7	57.6	56.1	59.0
Barwon-South Western	82.2	77.7	86.0	54.6	49.7	59.4	50.7	46.1	55.3
Gippsland	86.2	83.3	88.6	58.1	54.5	61.7	58.2	54.5	61.8
Grampians	83.2	79.7	86.3	53.2	49.6	56.9	54.8	50.9	58.6
Hume	86.0	83.1	88.4	56.3	53.4	59.0	53.5	50.5	56.5
Loddon Mallee	85.1	80.9	88.5	56.2	53.1	59.3	56.8	53.4	60.2
<b>Rural females</b>	84.1	82.2	85.8	55.6	53.7	57.4	54.5	52.7	56.4
<b>Total</b>	<b>85.1</b>	<b>84.0</b>	<b>86.1</b>	<b>59.2</b>	<b>58.0</b>	<b>60.3</b>	<b>56.8</b>	<b>55.6</b>	<b>57.9</b>
<b>Persons</b>									
Eastern Metropolitan	82.9	80.5	84.9	59.9	57.6	62.2	54.0	51.6	56.4
North & West Metropolitan	82.7	81.3	84.1	63.0	61.5	64.5	58.3	56.7	59.8
Southern Metropolitan	82.5	80.6	84.2	62.3	60.3	64.2	56.6	54.6	58.6
<b>Metropolitan persons</b>	82.7	81.7	83.7	62.0	60.9	63.1	56.6	55.5	57.7
Barwon-South Western	79.3	74.2	83.6	54.6	51.1	58.1	54.1	49.2	58.9
Gippsland	82.3	79.7	84.7	59.5	56.7	62.2	58.2	55.2	61.1
Grampians	78.4	75.1	81.3	55.0	52.1	57.7	52.6	49.8	55.5
Hume	82.9	80.2	85.3	58.3	55.8	60.7	53.9	51.3	56.4
Loddon Mallee	81.7	78.2	84.7	58.3	55.6	61.0	54.6	51.7	57.5
<b>Rural persons</b>	80.9	79.1	82.5	57.0	55.6	58.4	54.7	53.0	56.5
<b>Total</b>	<b>82.3</b>	<b>81.4</b>	<b>83.1</b>	<b>60.8</b>	<b>59.9</b>	<b>61.7</b>	<b>56.1</b>	<b>55.1</b>	<b>57.0</b>

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.

Data were age-standardised to the 2011 Victorian population.

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



Table 3.6 shows the proportion of men and women who had had a blood pressure, cholesterol or blood glucose (blood sugar) check in the previous two years, by LGA.

The proportion of people who lived in the LGA of Moreland (C) and had had a blood pressure check in the previous two years was significantly higher compared with all Victorian adults. By contrast the proportion was significantly lower in people who lived in the LGAs of Pyrenees (S) and Surf Coast (S) compared with all Victorian adults.

The proportion of people who lived in the LGAs of Greater Dandenong (C), Melton (S) and Whittlesea (C) and who had had a cholesterol check in the previous two years was significantly higher compared with all Victorian adults. By contrast the proportion of people who lived in Alpine (S), Ballarat (C), Baw Baw (S), Central Goldfields (S), Colac-Otway (S), Golden Plains (S), Hindmarsh (S), Indigo (S), Loddon (S), Mansfield (S), Mount Alexander (S), Pyrenees (S), Queenscliffe (B), South Gippsland (S), Southern Grampians (S), Surf Coast (S) and West Wimmera (S) was significantly lower compared with all Victorian adults.

The proportion of people who lived in the LGAs of Greater Dandenong (C), Latrobe (C), Melton (S) and Whittlesea (C) and who had had a blood glucose check in the previous two years was significantly higher compared with all Victorian adults. By contrast the proportion of people who lived in Benalla (RC), Boroondara (C), Golden Plains (S), Hepburn (S), Mansfield (S), Queenscliffe (B), South Gippsland (S), Southern Grampians (S), Surf Coast (S) and Yarra (C) was significantly lower compared with all Victorian adults.

Table 3.6: Biomedical checks in the past two years, by LGA, Victoria, 2011–12

LGA	Blood pressure check			Cholesterol check			Blood glucose check		
	%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL
Alpine (S)	87.5	80.4	92.2	48.8	44.1	53.6	49.8	43.5	56.1
Ararat (RC)	79.7	71.8	85.8	59.9	52.7	66.8	58.0	51.3	64.3
Ballarat (C)	79.4	73.0	84.5	53.8	48.5	59.1	51.2	45.7	56.7
Banyule (C)	87.2	81.0	91.6	63.0	56.4	69.1	58.5	51.8	64.9
Bass Coast (S)	85.3	77.1	90.9	62.9	55.4	69.8	62.0	54.1	69.4
Baw Baw (S)	81.5	75.0	86.5	53.2	48.0	58.4	51.7	45.9	57.5
Bayside (C)	85.6	76.3	91.6	60.7	53.3	67.7	52.6	45.3	59.8
Benalla (RC)	74.8	64.3	83.1	57.7	47.9	66.8	46.7	40.7	52.7
Boroondara (C)	83.3	77.0	88.2	56.0	49.9	61.9	45.6	39.6	51.7
Brimbank (C)	75.6	70.0	80.4	65.9	60.9	70.5	60.6	55.2	65.8
Buloke (S)	84.7	76.9	90.2	56.9	48.9	64.5	55.0	47.0	62.7
Campaspe (S)	77.3	70.2	83.2	59.2	53.1	65.1	53.6	47.2	59.9
Cardinia (S)	82.9	78.0	87.0	57.4	52.3	62.3	49.7	44.5	54.9
Casey (C)	79.9	74.2	84.7	65.0	59.6	70.0	61.5	55.9	66.9
Central Goldfields (S)	79.5	68.4	87.4	51.7	46.6	56.7	57.0	45.8	67.5
Colac-Otway (S)	79.4	72.0	85.3	46.0	41.5	50.6	48.6	42.0	55.3
Corangamite (S)	79.2	70.8	85.6	53.6	47.4	59.7	58.4	50.8	65.7
Darebin (C)	79.5	73.6	84.4	59.7	54.7	64.6	54.4	48.7	60.0
East Gippsland (S)	82.3	75.4	87.5	55.5	49.5	61.4	53.9	47.1	60.4
Frankston (C)	86.5	80.8	90.8	61.8	55.8	67.3	55.5	49.5	61.4
Gannawarra (S)	83.9	75.3	89.9	64.8	56.2	72.6	60.2	51.6	68.2
Glen Eira (C)	83.7	77.8	88.3	62.7	56.4	68.6	51.8	45.3	58.1
Glenelg (S)	81.1	71.9	87.8	57.7	50.3	64.9	58.3	50.6	65.6
Golden Plains (S)	77.2	69.4	83.5	51.3	44.3	58.2	47.8	42.9	52.7
Greater Bendigo (C)	81.6	73.0	87.9	56.7	50.1	63.0	52.8	46.0	59.5
Greater Dandenong (C)	77.9	72.7	82.3	67.1	61.9	71.9	62.6	57.4	67.5
Greater Geelong (C)	78.3	70.6	84.4	56.4	51.0	61.8	56.0	48.5	63.2
Greater Shepparton (C)	81.7	73.0	88.0	62.0	54.3	69.1	56.5	48.9	63.9
Hepburn (S)	77.1	66.3	85.2	51.7	43.8	59.5	45.4	40.3	50.7
Hindmarsh (S)	80.6	71.5	87.4	51.4	45.8	56.8	52.5	46.4	58.6
Hobsons Bay (C)	82.7	76.5	87.6	60.7	54.4	66.7	54.5	48.5	60.4
Horsham (RC)	78.8	67.4	87.0	56.5	47.3	65.2	57.3	47.8	66.4
Hume (C)	80.3	74.9	84.7	66.2	60.6	71.5	55.9	50.0	61.6
Indigo (S)	78.3	71.0	84.2	49.9	44.4	55.3	48.6	42.7	54.7
Kingston (C)	78.4	71.8	83.8	57.4	51.8	62.7	55.1	48.8	61.3
Knox (C)	85.4	80.3	89.3	59.8	54.2	65.2	53.9	48.1	59.6
Latrobe (C)	79.8	73.8	84.7	66.6	60.6	72.1	65.8	59.8	71.4
Loddon (S)	82.9	72.9	89.7	53.3	48.0	58.6	56.7	48.3	64.7
Macedon Ranges (S)	79.1	72.5	84.4	58.6	52.7	64.3	51.6	47.1	56.0
Manningham (C)	85.0	78.2	90.0	63.5	56.7	69.7	57.0	50.7	63.2
Mansfield (S)	88.0	80.4	92.9	50.7	45.9	55.5	48.4	43.4	53.5

Table 3.6: Biomedical checks in the past two years, by LGA, Victoria, 2011–12 (continued)

LGA	Blood pressure check			Cholesterol check			Blood glucose check		
	%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL
Maribyrnong (C)	82.0	75.4	87.2	58.7	53.4	63.7	60.9	54.9	66.6
Maroondah (C)	86.2	80.5	90.4	61.5	55.1	67.5	59.5	52.8	65.8
Melbourne (C)	81.7	76.0	86.3	60.3	54.7	65.6	53.9	48.4	59.3
Melton (S)	78.2	73.0	82.6	67.7	62.1	72.8	64.7	59.4	69.7
Mildura (RC)	84.9	78.2	89.8	63.5	56.9	69.5	60.9	53.9	67.5
Mitchell (S)	82.4	75.4	87.7	62.0	55.2	68.4	49.8	44.2	55.5
Moira (S)	76.0	67.5	82.8	53.4	46.9	59.8	52.3	44.3	60.1
Monash (C)	79.9	73.5	85.1	63.0	56.7	68.9	56.6	50.2	62.7
Moonee Valley (C)	85.5	79.4	90.0	57.2	51.2	63.0	53.9	47.7	60.0
Moorabool (S)	74.1	68.1	79.4	58.1	52.1	64.0	52.1	46.0	58.1
Moreland (C)	90.3	85.5	93.6	61.3	55.7	66.7	58.7	52.6	64.5
Mornington Peninsula (S)	82.3	75.7	87.4	56.8	50.4	62.9	52.0	46.3	57.7
Mount Alexander (S)	79.6	70.7	86.4	50.9	44.7	57.1	49.4	41.6	57.3
Moyne (S)	81.6	73.5	87.6	54.9	49.4	60.3	52.8	45.9	59.6
Murrindindi (S)	79.7	70.8	86.4	61.2	52.7	69.0	56.0	47.6	64.1
Nillumbik (S)	86.6	79.8	91.4	57.1	51.7	62.4	50.3	44.2	56.4
Northern Grampians (S)	79.7	69.9	86.9	64.2	53.9	73.4	59.8	49.8	69.0
Port Phillip (C)	81.7	74.5	87.2	60.3	53.3	67.0	52.8	45.5	59.9
Pyrenees (S)	71.6	64.9	77.4	52.2	47.3	57.0	57.0	50.3	63.4
Queenscliffe (B)	74.5	63.5	83.1	51.0	45.6	56.3	47.3	40.8	54.0
South Gippsland (S)	78.1	69.9	84.6	51.2	45.2	57.2	47.5	42.1	52.9
Southern Grampians (S)	80.4	70.0	87.9	46.3	40.5	52.2	44.5	38.6	50.5
Stonnington (C)	84.8	78.8	89.4	61.1	55.0	66.9	53.8	47.4	60.1
Strathbogie (S)	84.2	75.1	90.4	54.6	49.4	59.7	55.5	47.0	63.7
Surf Coast (S)	69.3	61.4	76.3	45.7	41.3	50.2	40.9	35.8	46.2
Swan Hill (RC)	82.8	75.7	88.2	60.8	53.7	67.4	56.5	49.6	63.1
Towong (S)	85.6	77.2	91.3	56.4	51.5	61.1	55.5	48.4	62.3
Wangaratta (RC)	87.0	80.7	91.4	55.0	49.3	60.6	52.6	45.8	59.2
Warrnambool (C)	84.6	78.7	89.0	59.2	53.8	64.4	53.9	48.1	59.7
Wellington (S)	87.6	81.4	91.9	57.1	51.1	62.9	55.1	47.4	62.6
West Wimmera (S)	78.7	71.7	84.3	53.2	48.2	58.1	52.0	46.4	57.6
Whitehorse (C)	80.1	73.7	85.3	56.3	51.0	61.5	51.6	46.5	56.6
Whittlesea (C)	81.7	76.5	85.9	69.2	63.6	74.2	66.2	60.6	71.4
Wodonga (RC)	87.1	81.4	91.2	58.7	53.5	63.8	53.6	48.3	58.9
Wyndham (C)	83.8	79.3	87.5	60.8	56.2	65.2	59.7	54.7	64.4
Yarra (C)	85.1	77.7	90.4	58.4	52.0	64.5	45.9	40.7	51.2
Yarra Ranges (S)	82.6	75.5	87.9	57.3	51.1	63.3	52.3	45.9	58.6
Yarriambiack (S)	86.6	80.2	91.2	57.7	50.2	64.9	56.5	49.0	63.8
<b>Victoria</b>	<b>81.9</b>	<b>81.0</b>	<b>82.8</b>	<b>60.4</b>	<b>59.5</b>	<b>61.3</b>	<b>55.6</b>	<b>54.6</b>	<b>56.5</b>

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.

### 3.3 Bowel cancer screening

Screening is defined as the examination of a group of usually asymptomatic individuals to detect those who may have an undiagnosed pathologic condition or are at high risk of that condition. Most diseases and conditions have a better prognosis if caught and treated in the early stages. Therefore the purpose of screening is to identify individuals in the early stages of the disease so that treatment can be initiated, thus improving health outcomes and reducing mortality.

Bowel cancer is one of the most common forms of cancer in Australia, and around 80 Australians die each week from the disease. Bowel cancer can be treated successfully if detected in its early stages, but currently fewer than 40 per cent of bowel cancers are detected early (DoHA 2013b).

In 2006 the Australian Government commenced a limited bowel cancer screening program, which continues to be expanded. When fully implemented it is expected that all Australians between the ages of 50 and 74 years will be offered free biennial screening. People eligible for the program receive a written

invitation in the mail to complete an FOBT, which they return by mail to a designated pathology laboratory for analysis. If the test is positive they are advised to consult their doctor who will generally recommend a follow-up colonoscopy. Currently, people aged 50, 55, 60 or 65 years who hold a Medicare or DVA card are being invited to participate (DoHA 2013b).

Respondents aged 50 years or over were asked whether they had received an FOBT kit from the National Bowel Cancer Screening Program (NBCSP) in the mail. Table 3.7 shows the proportion of people who had received an FOBT kit, by age group and sex.

Overall, 48.6 per cent of people aged 50 years or over had received an FOBT kit in the mail, with a significantly higher proportion being men (50.0 per cent) compared with women (47.3 per cent). The highest proportion of men (73.8 per cent) and women (73.0 per cent) who had received an FOBT kit were aged 50–59 years.

**Table 3.7: Received faecal occult blood test (FOBT) kit in mail from NBCSP,<sup>a</sup> by age group and sex, Victoria, 2011–12**

Age group (years)	Received FOBT kit in mail from NBCSP						
	%	Yes 95% CI		%	No 95% CI		
		LL	UL		LL	UL	
<b>Males</b>							
50–59	73.8	71.3	76.1	24.5	22.2	27.0	
60–69	51.4	48.8	53.9	46.8	44.3	49.4	
70–79	25.6	22.9	28.5	70.1	67.1	72.9	
80+	9.2	6.9	12.0	86.4	83.0	89.2	
<b>Total</b>	<b>50.0</b>	<b>48.7</b>	<b>51.3</b>	<b>47.4</b>	<b>46.1</b>	<b>48.8</b>	
<b>Females</b>							
50–59	73.0	71.0	75.0	25.9	24.0	27.9	
60–69	50.6	48.5	52.8	48.5	46.3	50.7	
70–79	19.0	17.1	21.1	79.5	77.3	81.5	
80+	8.0	6.3	10.0	89.9	87.8	91.7	
<b>Total</b>	<b>47.3</b>	<b>46.2</b>	<b>48.3</b>	<b>51.4</b>	<b>50.4</b>	<b>52.5</b>	
<b>Persons</b>							
50–59	73.4	71.8	74.9	25.2	23.7	26.8	
60–69	51.0	49.3	52.6	47.7	46.0	49.4	
70–79	22.0	20.4	23.7	75.2	73.4	76.9	
80+	8.5	7.1	10.1	88.4	86.5	90.0	
<b>Total</b>	<b>48.6</b>	<b>47.7</b>	<b>49.4</b>	<b>49.5</b>	<b>48.7</b>	<b>50.4</b>	

a. National Bowel Cancer Screening Program

Only respondents aged 50 years and over were asked whether they had received an FOBT kit in the mail.

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

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

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

Respondents were subsequently asked if they had completed and returned the FOBT kit for testing.

Table 3.8 shows the people who received an FOBT kit in the mail and the proportion who had returned the FOBT kit for testing, by age group and sex.

Overall, 61.2 per cent of adults who had received an FOBT kit in the mail had completed and returned the kit for testing. There was no significant difference between men and women. The proportion that had completed and returned the kits for testing increased with age, with the highest proportion being people aged 80 years or over (72.9 per cent).

**Table 3.8: Returned faecal occult blood test (FOBT) kit sent by NBCSP,<sup>a</sup> by age group and sex, Victoria, 2011–12**

Age group (years)	Received FOBT kit in mail from NBCSP						
	%	Yes		%	No		
		95% CI			95% CI		
		LL	UL		LL	UL	
<b>Males</b>							
50–59	50.8	47.6	54.0	48.6	45.5	51.8	
60–69	61.5	58.0	65.0	38.2	34.7	41.8	
70–79	71.8	65.6	77.2	26.6	21.3	32.7	
80+	67.8	53.4	79.5	27.7	17.3	41.2	
<b>Total</b>	<b>59.5</b>	<b>56.8</b>	<b>62.2</b>	<b>39.2</b>	<b>36.6</b>	<b>41.9</b>	
<b>Females</b>							
50–59	51.7	49.1	54.2	48.3	45.8	50.9	
60–69	63.9	60.9	66.8	35.8	32.9	38.8	
70–79	72.6	66.7	77.7	26.7	21.6	32.5	
80+	77.5	64.8	86.6	20.9*	12.1	33.7	
<b>Total</b>	<b>62.7</b>	<b>60.5</b>	<b>64.9</b>	<b>36.9</b>	<b>34.7</b>	<b>39.2</b>	
<b>Persons</b>							
50–59	51.3	49.2	53.3	48.5	46.4	50.5	
60–69	62.7	60.4	65.0	37.0	34.7	39.3	
70–79	72.1	67.9	76.0	26.7	22.9	30.8	
80+	72.9	63.6	80.5	24.1	17.0	33.0	
<b>Total</b>	<b>61.2</b>	<b>59.4</b>	<b>62.9</b>	<b>38.0</b>	<b>36.3</b>	<b>39.8</b>	

a. National Bowel Cancer Screening Program

Only respondents aged 50 years and over were asked whether they had returned an FOBT kit sent by NBCSP.

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

Data are age-specific estimates, except for 'Total', which represent the estimates for Victoria and were age-standardised to the 2011 Victorian population. Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: **above/below** Victoria.

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

If a respondent stated that they did not complete and return the FOBT kit for testing, they were asked to provide up to three reasons for not doing so. Table 3.9 lists the reasons given by age group and sex.

The most common reason given for not completing and returning the FOBT kit for testing was 'lack of time / being too busy' for men (30.7 per cent) and women (29.6 per cent) aged 50–59 years. The second most common reason given for both men (25.1 per cent) and women (27.2 per cent) was that they had 'already had another bowel test(s)'. The third most common reason for men (12.4 per cent) and women (9.4 per cent) was that they had 'forgot or did not want to'. There were no significant differences between the sexes. Together these three reasons account for more than 70 per cent of the responses provided by this age group.

Similarly the three reasons given above for the 50–59 age group were also the top three reasons given by the 60–69 age group, although with a switch in order. There were also no differences between the sexes. In this age group having already had another test was the most common reason and 'lack of time / too busy' fell to second place.

The same findings were observed for the 70-plus age group. However, the proportion reporting 'lack of time / too busy' fell to 18.5 per cent, with almost half of that being reported for those aged 50–59 years. However, there were no significant differences between the 60–69 and 70-plus age groups in the proportion reporting that they had 'already had another bowel test(s)'. Therefore the total contribution of these three reasons dropped to 47.2 per cent of the total responses. A fourth reason emerged as an important contributor in the 70-plus age group and that was 'lack of symptoms / feeling well / no family history', which contributed an additional 12.3 per cent to the total responses. This may point to a need to improve the health literacy regarding bowel cancer in this age group.



Table 3.9: Reason(s) for not completing or returning the FOBT kit, by age group and sex, 2011–12, Victoria

Reason(s) for not completing or returning the FOBT kit	50–59 years			60–69 years			70+ years			Total (50–70+)		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
<b>Males</b>												
Lack of time / too busy	30.7	26.6	35.1	23.4	18.4	29.3	18.9	12.0	28.6	27.9	24.8	31.2
Already had another bowel test(s)	25.1	21.4	29.2	33.7	28.3	39.6	36.4	26.4	47.8	28.3	25.3	31.5
Forgot or didn't want to	12.4	9.7	15.7	6.8	4.8	9.7	10.0*	5.7	17.0	10.6	8.7	12.9
No reason in particular	5.1	3.3	7.8	4.9*	2.8	8.6	**	**	**	5.0	3.6	7.0
Lack of symptoms / feeling well / no family history	4.4	2.7	7.1	8.1	5.5	11.8	11.3*	5.2	22.8	5.9	4.4	7.9
Embarrassment / distaste with stool collection	3.4	2.2	5.3	3.7*	1.9	6.9	**	**	**	3.4	2.4	4.8
Did not understand instructions	2.8*	1.6	4.9	3.3*	1.6	6.6	**	**	**	3.1	2.0	4.7
Only recently received kit in mail and haven't had a chance yet	1.7*	0.9	3.5	**	**	**	**	**	**	1.3*	0.7	2.4
Prefer to see GP/doctor about it	1.7*	0.9	3.1	2.4*	1.2	4.8	**	**	**	1.9	1.2	2.9
Lazy/couldn't be bothered	1.6*	0.9	2.9	3.7*	1.9	6.9	**	**	**	2.2	1.5	3.4
Don't know enough about the test	1.6*	0.7	3.5	**	**	**	**	**	**	1.5*	0.8	2.7
Don't know/refused	1.4*	0.6	2.9	**	**	**	**	**	**	1.5*	0.8	2.6
Fear of positive results of cancer	1.3*	0.7	2.5	**	**	**	**	**	**	1.0*	0.5	1.7
Defective/faulty/recalled kit	1.2*	0.6	2.3	0.3*	0.1	0.6	**	**	**	0.9*	0.5	1.7
Too sick/ill/unwell (with illness other than bowel cancer or unspecified illness)	1.1*	0.5	2.3	1.4*	0.6	3.5	**	**	**	1.2*	0.7	2.2
Other	1.1*	0.5	2.3	**	**	**	**	**	**	1.3*	0.7	2.4
Already had or currently have bowel cancer/undergoing treatment or surgery	0.7*	0.3	1.7	1.0*	0.5	2.3	**	**	**	0.7*	0.4	1.4
Have a haemorrhoid (or other condition) so test would have blood anyway	0.6*	0.1	2.5	**	**	**	**	**	**	**	**	**
About to do it	0.6*	0.2	1.5	**	**	**	0.0	-	-	0.6*	0.3	1.3
Concerned about incorrect positive diagnosis	**	**	**	**	**	**	0.0	-	-	**	**	**
Physically to complete kit/too complicated	**	**	**	**	**	**	**	**	**	**	**	**
Fear of further tests or surgery	**	**	**	**	**	**	0.0	-	-	**	**	**
Afraid won't collect samples correctly	**	**	**	**	**	**	0.0	-	-	0.2*	0.1	0.5
Too personal/family member died of cancer	**	**	**	**	**	**	0.0	-	-	**	**	**

Only respondents aged 50 years and over were asked their reasons for not returning an FOBT kit sent by NBCSP. \*\* Estimate has a RSE greater than 50 per cent and is not reported as it is unreliable for general use.  
 LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.  
 \* Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.  
 Data are crude estimates.

Table 3.9: Reason(s) for not completing or returning the FOBT kit, by age group and sex, 2011–12, Victoria (continued)

Reason(s) for not completing or returning the FOBT kit	50–59 years			60–69 years			70+ years			Total (50–70+)		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
<b>Females</b>												
Lack of time / too busy	29.6	26.2	33.2	20.3	16.2	25.2	18.1*	10.5	29.4	26.4	23.8	29.2
Already had another bowel test(s)	27.2	24.0	30.6	29.0	24.6	33.9	28.6	19.9	39.2	27.8	25.2	30.5
Forgot or didn't want to	9.4	7.5	11.6	12.1	8.9	16.3	14.9*	8.6	24.4	10.4	8.8	12.4
Embarrassment / distaste with stool collection	6.6	4.9	8.8	4.2	2.7	6.5	**	**	**	5.8	4.5	7.4
No reason in particular	4.3	3.0	6.0	3.0*	1.7	5.3	9.9*	4.4	20.9	4.3	3.2	5.6
Lack of symptoms / feeling well / no family history	3.2	2.2	4.7	5.5	3.6	8.3	13.4*	7.2	23.6	4.4	3.4	5.7
Defective/faulty/recalled kit	2.4	1.5	3.9	2.6*	1.4	4.6	0.0	-	-	2.3	1.6	3.4
Did not understand instructions	2.4	1.5	3.7	4.2	2.6	6.8	**	**	**	2.9	2.1	4.0
Prefer to see GP/doctor about it	1.7*	1.0	2.9	1.8*	0.7	4.6	**	**	**	1.7	1.1	2.7
Too sick/ill/unwell (with illness other than bowel cancer or unspecified illness)	1.7*	1.0	2.8	**	**	**	**	**	**	1.5	1.0	2.4
Fear of positive results of cancer	1.6*	0.8	3.1	1.9*	0.8	4.8	**	**	**	1.8*	1.1	2.9
Lazy/couldn't be bothered	1.5*	0.9	2.6	2.1*	1.0	4.7	**	**	**	1.6	1.0	2.5
Only recently received kit in mail and haven't had a chance yet	1.5*	0.7	3.1	1.6*	0.7	3.6	**	**	**	1.5*	0.8	2.6
Other	1.4*	0.8	2.7	1.1*	0.5	2.5	**	**	**	1.4	0.8	2.2
About to do it	0.9*	0.4	1.8	**	**	**	**	**	**	0.8*	0.4	1.4
Too personal / family member died of cancer	**	**	**	**	**	**	0.0	-	-	0.6*	0.2	1.4
Concerned about incorrect positive diagnosis	0.6*	0.2	1.7	**	**	**	0.0	-	-	0.5*	0.2	1.2
Don't know enough about the test	**	**	**	1.2*	0.5	2.5	**	**	**	0.7*	0.4	1.4
Afraid won't collect samples correctly	**	**	**	1.9*	0.8	4.0	0.0	-	-	0.9*	0.5	1.7
Already had or currently have bowel cancer/undergoing treatment or surgery	**	**	**	0.5*	0.2	1.1	**	**	**	0.5*	0.2	1.1
Don't know/refused	0.6*	0.3	1.1	1.4*	0.6	3.1	**	**	**	0.8*	0.5	1.3
Have a haemorrhoid (or other condition) so test would have blood anyway	**	**	**	**	**	**	**	**	**	0.6*	0.3	1.3
Physically to complete kit/too complicated	0.4*	0.2	0.9	1.1*	0.5	2.5	**	**	**	0.6*	0.3	1.0
Fear of further tests or surgery	**	**	**	**	**	**	0.0	-	-	0.2*	0.1	0.5

Table 3.9: Reason(s) for not completing or returning the FOBT kit, by age group and sex, 2011–12, Victoria (continued)

Reason(s) for not completing or returning the FOBT kit	50–59 years			60–69 years			70+ years			Total (50–70+)		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
<b>Persons</b>												
Lack of time / too busy	30.1	27.5	32.9	21.9	18.6	25.6	18.5	13.1	25.5	27.1	25.1	29.3
Already had another bowel test(s)	26.2	23.7	28.8	31.4	27.9	35.1	32.7	25.8	40.5	28.0	26.1	30.1
Forgot or didn't want to	10.8	9.2	12.8	9.5	7.5	11.9	12.3	8.3	17.8	10.5	9.2	12.0
Embarrassment / distaste with stool collection	5.0	3.9	6.4	3.9	2.7	5.7	3.9*	1.2	6.9	4.6	3.7	5.6
No reason in particular	4.7	3.5	6.2	4.0	2.6	6.0	6.9*	3.6	12.9	4.6	3.7	5.8
Lack of symptoms / feeling well / no family history	3.8	2.8	5.2	6.8	5.1	9.0	12.3	7.5	19.4	5.2	4.2	6.3
Did not understand instructions	2.6	1.8	3.7	3.8	2.5	5.7	**	**	**	3.0	2.3	3.9
Defective/faulty/recalled kit	1.8	1.2	2.7	1.4*	0.8	2.4	**	**	**	1.6	1.2	2.3
Prefer to see GP/doctor about it	1.7	1.1	2.5	2.1*	1.2	3.7	1.8*	0.7	4.7	1.8	1.3	2.5
Only recently received kit in mail and haven't had a chance yet	1.6*	1.0	2.7	1.0*	0.5	2.0	**	**	**	1.4	0.9	2.1
Lazy/couldn't be bothered	1.6	1.1	2.3	2.9*	1.8	4.8	**	**	**	1.9	1.4	2.6
Fear of positive results of cancer	1.5	0.9	2.3	1.1*	0.5	2.5	**	**	**	1.4	0.9	2.0
Too sick / ill / unwell (with illness other than bowel cancer or unspecified illness)	1.4	0.9	2.1	1.4*	0.7	2.7	**	**	**	1.4	1.0	2.0
Other	1.3	0.8	2.1	1.4*	0.6	3.3	1.2*	0.5	3.1	1.3	0.9	2.0
Don't know enough about the test	1.1*	0.6	2.0	1.1*	0.5	2.2	**	**	**	1.1	0.7	1.8
Don't know/refused	1.0*	0.5	1.7	1.6*	0.8	3.1	**	**	**	1.1	0.7	1.7
About to do it	0.7*	0.4	1.3	0.7*	0.3	1.7	**	**	**	0.7	0.5	1.1
Already had or currently have bowel cancer/undergoing treatment or surgery	0.6*	0.3	1.2	0.7*	0.4	1.4	**	**	**	0.6*	0.4	1.0
Concerned about incorrect positive diagnosis	0.6*	0.2	1.5	**	**	**	0.0	-	-	0.4*	0.2	1.0
Have a haemorrhoid (or other condition) so test would have blood anyway	0.5*	0.2	1.3	0.7*	0.3	1.6	**	**	**	0.6*	0.3	1.1
Physically to complete kit/too complicated	0.4*	0.2	0.9	0.7*	0.3	1.5	**	**	**	0.5*	0.3	0.8
Too personal / family member died of cancer	**	**	**	**	**	**	0.0	-	-	0.3*	0.1	0.7
Afraid won't collect samples correctly	0.4*	0.2	0.9	1.1*	0.5	2.2	0.0	-	-	0.6*	0.3	1.0
Fear of further tests or surgery	0.2*	0.1	0.6	0.4*	0.2	0.9	0.0	-	-	0.3*	0.1	0.5

Only respondents aged 50 years and over were asked their reasons for not returning an FOBT kit sent by NBCSP. \*\* Estimate has a RSE greater than 50 per cent and is not reported as it is unreliable for general use.  
 LL/UL 95% CI = lower/upper limit of 95 per cent confidence interval.  
 \* Estimate has a relative standard error (RSE) of between 25 and 50 per cent and should be interpreted with caution.

Table 3.10 shows the proportion of people who received an FOBT kit, by Department of Health region and sex. There were no regional or sex differences in the proportion who had received an FOBT kit in the mail, suggesting that the distribution is equitable across the various jurisdictions of Victoria.

Table 3.10: Received faecal occult blood test (FOBT) kit in mail from NBCSP,<sup>a</sup> by Department of Health region and sex, Victoria, 2011–12

Region	Received FOBT kit in mail from NBCSP					
	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
<b>Males</b>						
Eastern Metropolitan	48.2	45.1	51.4	49.4	46.1	52.6
North & West Metropolitan	50.5	47.8	53.2	46.8	44.0	49.6
Southern Metropolitan	49.9	46.7	53.1	47.5	44.3	50.6
<b>Metropolitan males</b>	49.7	47.9	51.4	47.7	45.9	49.5
Barwon-South Western	54.4	49.8	58.9	43.7	39.2	48.2
Gippsland	51.6	48.0	55.1	46.4	42.9	50.0
Grampians	48.5	44.8	52.2	49.3	45.7	53.0
Hume	47.3	44.5	50.0	50.0	47.1	52.9
Loddon Mallee	51.0	47.9	54.2	45.4	42.2	48.7
<b>Rural males</b>	50.9	49.2	52.6	46.6	44.9	48.4
<b>Total</b>	<b>50.0</b>	<b>48.7</b>	<b>51.3</b>	<b>47.4</b>	<b>46.1</b>	<b>48.8</b>
<b>Females</b>						
Eastern Metropolitan	49.1	46.6	51.7	50.0	47.4	52.5
North & West Metropolitan	46.9	44.8	49.0	51.4	49.2	53.5
Southern Metropolitan	47.6	45.3	49.9	51.5	49.2	53.8
<b>Metropolitan females</b>	47.7	46.4	49.1	51.1	49.7	52.4
Barwon-South Western	42.2	38.1	46.5	55.5	51.2	59.6
Gippsland	47.8	45.2	50.5	51.2	48.5	53.8
Grampians	47.7	44.7	50.6	51.2	48.2	54.1
Hume	47.6	45.2	49.9	51.7	49.3	54.0
Loddon Mallee	47.2	44.4	49.9	51.3	48.5	54.2
<b>Rural females</b>	46.4	44.9	47.8	52.2	50.7	53.7
<b>Total</b>	<b>47.3</b>	<b>46.2</b>	<b>48.3</b>	<b>51.4</b>	<b>50.4</b>	<b>52.5</b>
<b>Persons</b>						
Eastern Metropolitan	48.6	46.6	50.7	49.8	47.8	51.9
North & West Metropolitan	48.6	46.9	50.3	49.2	47.5	50.9
Southern Metropolitan	48.7	46.8	50.7	49.6	47.6	51.5
<b>Metropolitan persons</b>	48.6	47.5	49.7	49.5	48.4	50.6
Barwon-South Western	48.2	45.0	51.5	49.7	46.4	52.9
Gippsland	49.6	47.4	51.8	48.9	46.7	51.1
Grampians	48.1	45.7	50.6	50.2	47.8	52.6
Hume	47.5	45.6	49.3	50.8	48.9	52.7
Loddon Mallee	49.1	47.0	51.2	48.5	46.3	50.6
<b>Rural persons</b>	48.6	47.4	49.7	49.5	48.3	50.6
<b>Total</b>	<b>48.6</b>	<b>47.7</b>	<b>49.4</b>	<b>49.5</b>	<b>48.7</b>	<b>50.4</b>

a. National Bowel Cancer Screening Program

Only respondents aged 50 years and over were asked whether they had received an FOBT kit sent by NBCSP.

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

Data were age-standardised to the 2011 Victorian population.

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

Table 3.11 shows the people who received the FOBT kit in the mail and the proportion who returned the FOBT kit for testing, by Department of Health region and sex.

A significantly higher proportion of women and adults aged 50 years or over who lived in Gippsland Region and Hume Region completed and returned the FOBT kits for testing compared with all Victorian women and adults aged 50 years or over, respectively. Overall, a significantly higher proportion of people who lived in rural compared with metropolitan Victoria completed and returned the FOBT kits for testing.



Table 3.11: Returned faecal occult blood test (FOBT) kit sent by NBCSP,<sup>a</sup> by Department of Health region, Victoria, 2011–12

Region	Returned FOBT kit sent by NBCSP					
	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
<b>Males</b>						
Eastern Metropolitan	55.5	49.7	61.1	43.7	38.1	49.4
North & West Metropolitan	56.8	51.1	62.3	41.7	36.2	47.4
Southern Metropolitan	57.1	51.0	63.0	40.3	34.8	46.0
<b>Metropolitan males</b>	57.9	54.2	61.5	40.4	36.9	43.9
Barwon-South Western	61.9	54.0	69.1	37.8	30.5	45.6
Gippsland	67.2	61.1	72.7	32.8	27.2	38.8
Grampians	62.9	55.7	69.5	37.1	30.5	44.3
Hume	64.4	58.5	69.9	34.4	28.9	40.3
Loddon Mallee	57.2	50.0	64.2	41.9	35.0	49.1
<b>Rural males</b>	63.2	59.8	66.5	36.3	33.0	39.7
<b>Total</b>	<b>59.5</b>	<b>56.8</b>	<b>62.2</b>	<b>39.2</b>	<b>36.6</b>	<b>41.9</b>
<b>Females</b>						
Eastern Metropolitan	60.4	54.5	66.0	37.7	32.7	42.9
North & West Metropolitan	61.2	55.8	66.2	38.5	33.5	43.9
Southern Metropolitan	62.9	58.7	67.0	37.1	33.0	41.3
<b>Metropolitan females</b>	61.2	58.2	64.1	38.4	35.5	41.3
Barwon-South Western	58.6	50.9	65.8	41.4	34.1	49.0
Gippsland	71.9	67.1	76.3	28.0	23.7	32.8
Grampians	66.8	61.2	72.1	32.9	27.7	38.5
Hume	69.2	65.4	72.8	30.4	26.9	34.2
Loddon Mallee	66.5	60.6	71.9	33.4	28.0	39.3
<b>Rural females</b>	66.2	63.1	69.2	33.6	30.7	36.7
<b>Total</b>	<b>62.7</b>	<b>60.5</b>	<b>64.9</b>	<b>36.9</b>	<b>34.7</b>	<b>39.2</b>
<b>Persons</b>						
Eastern Metropolitan	59.2	54.5	63.8	39.5	35.1	44.2
North & West Metropolitan	59.2	55.3	63.1	39.9	36.1	43.8
Southern Metropolitan	59.7	55.5	63.7	39.2	35.4	43.1
<b>Metropolitan persons</b>	59.8	57.4	62.1	39.2	36.9	41.5
Barwon-South Western	60.4	54.4	66.1	39.3	33.6	45.3
Gippsland	69.3	65.3	73.0	30.7	27.0	34.6
Grampians	64.9	60.0	69.5	34.9	30.4	39.8
Hume	67.6	64.2	70.8	31.7	28.5	35.1
Loddon Mallee	61.7	56.6	66.5	37.8	33.0	42.8
<b>Rural persons</b>	64.6	62.2	66.9	35.0	32.7	37.4
<b>Total</b>	<b>61.2</b>	<b>59.4</b>	<b>62.9</b>	<b>38.0</b>	<b>36.3</b>	<b>39.8</b>

a. National Bowel Cancer Screening Program

Only respondents aged 50 years and over were asked whether they had returned an FOBT kit sent by NBCSP.

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.

Data were age-standardised to the 2011 Victorian population.

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

The various reasons people aged 50 years or over offered for not completing and returning the FOBT kits in metropolitan and rural regions are presented in Table 3.12. More than 20 different reasons were provided, the five most common reasons, which accounted for 76.1 per cent of the total responses by Victorian adults, were:

- already had another bowel test(s)
- lack of time / too busy
- forgot or didn't want to
- lack of symptoms / feeling well / no family history
- no particular reason.

A significantly higher proportion of people who responded that they had 'Already had another bowel test(s)' lived in metropolitan compared with rural Victoria (32.5 per cent versus 24.5 per cent). Whether this reflects greater difficulties in accessing healthcare in rural Victoria or a greater tendency not to seek medical attention remains to be determined. However, given that a significantly higher proportion of Victorians who lived in the rural regions completed and returned the FOBT kits would argue against the latter explanation.

By contrast the proportion of people responding 'No reason in particular' was significantly higher in people who lived in rural compared with metropolitan Victoria. The proportion of people responding with 'Lack of time / too busy', 'Forgot or didn't want to' and 'Lack of symptoms / feeling well / no family history' did not significantly differ between rural and metropolitan Victoria.

Table 3.12: Reason(s) for persons not returning FOBT kit, by metropolitan and rural region, Victoria, 2011–12

Persons	Metropolitan regions			Rural regions			Victoria		
	%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL
Already had another bowel test(s)	32.5	28.7	36.4	24.5	21.1	28.3	29.5	26.5	32.6
Lack of time / too busy	23.3	20.3	26.4	24.4	20.6	28.6	23.4	21.1	25.9
Forgot or didn't want to	9.8	7.7	12.3	11.6	9.5	14.0	10.2	8.6	12.1
Lack of symptoms / feeling well / no family history	7.3	5.1	10.2	6.8	4.8	9.7	7.4	5.6	9.8
No reason in particular	3.1	2.2	4.2	9.7	6.6	14.0	5.5	3.8	8.0
Embarrassment / distaste with stool collection	3.8	2.8	5.1	4.4	2.9	6.4	4.0	3.1	5.0
Did not understand instructions	3.7	2.3	5.8	1.3*	0.8	2.1	2.9	2.0	4.2
Lazy/couldn't be bothered	1.8*	1.1	3.0	2.9*	1.4	5.8	2.1	1.4	3.3
Too sick/ill/unwell (with illness other than bowel cancer or unspecified illness)	**	**	**	0.9*	0.5	1.5	2.0*	0.7	5.2
Don't know enough about the test	**	**	**	1.4*	0.7	3.0	1.9*	0.7	5.0
Prefer to see GP/doctor about it	1.4	0.9	2.1	2.7*	1.5	4.8	1.8	1.2	2.5
Defective/faulty/recalled kit	1.4	0.9	2.1	1.1	0.7	1.6	1.3	0.9	1.8
Don't know/refused	1.3*	0.7	2.4	1.1*	0.7	1.9	1.3	0.8	2.1
Fear of positive results of cancer	1.7*	0.8	3.6	0.9*	0.5	1.6	1.3*	0.8	2.3
Other reason	1.0*	0.6	1.8	1.5*	0.8	2.6	1.2	0.8	1.8
Only recently received kit in mail and haven't had a chance yet	0.8*	0.5	1.4	1.2	0.7	1.9	0.9	0.6	1.4
Already had or currently have bowel cancer/undergoing treatment or surgery	0.4*	0.2	0.9	0.9*	0.5	1.6	0.6*	0.4	1.0
About to do it	0.6*	0.3	1.0	0.5*	0.3	0.8	0.5	0.3	0.8
Have a haemorrhoid (or other condition) so test would have blood anyway	0.3*	0.1	0.8	0.9*	0.5	1.8	0.5*	0.3	0.9
Physically to complete kit/too complicated	0.4*	0.2	0.9	0.7*	0.3	1.7	0.5*	0.3	0.9
Afraid won't collect samples correctly	0.4*	0.2	0.8	0.3*	0.1	0.6	0.4*	0.2	0.7
Concerned about incorrect positive diagnosis	0.3*	0.1	0.8	0.1*	0.0	0.3	0.3*	0.1	0.6
Fear of further tests or surgery	**	**	**	0.3*	0.2	0.5	0.2*	0.1	0.4
Too personal/family member died of cancer	**	**	**	0.1*	0.1	0.2	0.2*	0.1	0.4
<b>Total</b>	<b>100</b>			<b>100</b>			<b>100</b>		

Only respondents aged 50 years and over were asked their reasons for not returning an FOBT kit sent by NBCSP.

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

Data were age-standardised to the 2011 Victorian population.

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

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

# Biomedical checks and cancer screening

Table 3.13 shows the proportion of people who received an FOBT kit, by LGA. The proportion of people aged 50 years or over who had received the FOBT kit in the mail was significantly higher in those who lived in the LGAs of Ararat (RC), Banyule (C), Nillumbik (S) and Stonnington (C) compared with the proportion in all Victorian people, aged 50 years or over. By contrast the proportion was significantly lower in people who lived Hume (C), Kingston (C), Mitchell (S) and Southern Grampians (S) compared with all Victorian adults aged 50 years or over.

Table 3.13: Received faecal occult blood test (FOBT) kit in mail from NBCSP,<sup>a</sup> by LGA, Victoria, 2011–12

LGA	Received FOBT kit in mail from NBCSP						
	%	Yes 95% CI		%	No 95% CI		
		LL	UL		LL	UL	
Alpine (S)	52.3	47.2	57.4	46.6	41.5	51.7	
Ararat (RC)	56.0	50.1	61.7	43.2	37.5	49.1	
Ballarat (C)	48.2	42.5	53.9	50.8	45.2	56.4	
Banyule (C)	63.2	56.7	69.2	35.1	29.1	41.6	
Bass Coast (S)	51.5	46.8	56.3	46.9	42.1	51.7	
Baw Baw (S)	50.0	44.3	55.7	48.6	42.9	54.4	
Bayside (C)	52.0	46.0	57.9	47.0	41.0	53.1	
Benalla (RC)	48.1	42.8	53.4	50.0	44.7	55.3	
Boroondara (C)	54.8	49.0	60.5	43.7	38.1	49.4	
Brimbank (C)	47.8	41.9	53.7	51.5	45.6	57.4	
Buloke (S)	47.0	41.3	52.7	50.7	45.0	56.4	
Campaspe (S)	49.9	44.6	55.2	49.4	44.1	54.7	
Cardinia (S)	43.8	37.6	50.3	55.8	49.3	62.1	
Casey (C)	45.8	40.1	51.6	53.4	47.6	59.0	
Central Goldfields (S)	46.5	41.0	52.1	52.5	46.9	58.1	
Colac-Otway (S)	50.3	45.1	55.4	48.4	43.2	53.7	
Corangamite (S)	48.1	43.0	53.2	48.6	43.3	53.9	
Darebin (C)	50.1	43.6	56.6	47.3	40.9	53.7	
East Gippsland (S)	54.2	48.8	59.4	44.9	39.6	50.3	
Frankston (C)	49.8	43.8	55.8	48.9	42.9	55.0	
Gannawarra (S)	46.3	41.0	51.7	51.3	46.2	56.5	
Glen Eira (C)	51.8	45.8	57.8	45.6	39.6	51.8	
Glenelg (S)	47.5	41.8	53.2	51.5	45.6	57.3	
Golden Plains (S)	50.3	43.6	56.9	47.8	41.4	54.2	
Greater Bendigo (C)	52.4	47.0	57.8	44.4	39.1	49.8	
Greater Dandenong (C)	49.5	43.4	55.6	48.7	42.7	54.7	
Greater Geelong (C)	49.7	44.0	55.5	47.8	42.1	53.6	
Greater Shepparton (C)	50.2	44.6	55.8	47.6	42.0	53.3	
Hepburn (S)	48.8	43.7	54.1	50.1	44.9	55.3	
Hindmarsh (S)	46.1	40.7	51.5	53.2	47.7	58.5	
Hobsons Bay (C)	50.7	45.0	56.4	47.1	41.3	53.0	
Horsham (RC)	46.8	41.4	52.3	49.9	44.4	55.4	
Hume (C)	40.6	34.9	46.6	56.3	50.2	62.2	
Indigo (S)	45.2	39.5	50.9	53.9	47.9	59.8	
Kingston (C)	39.4	33.3	45.8	56.9	50.5	63.1	
Knox (C)	49.5	44.0	55.1	50.2	44.7	55.7	
Latrobe (C)	51.2	45.7	56.7	47.3	41.8	52.8	
Loddon (S)	45.8	40.4	51.3	53.3	47.8	58.7	
Macedon Ranges (S)	50.9	45.2	56.6	46.7	41.1	52.4	
Manningham (C)	49.3	43.7	54.9	49.5	43.8	55.1	
Mansfield (S)	49.6	44.2	55.0	49.7	44.3	55.1	
Maribyrnong (C)	43.6	37.3	50.1	53.7	47.3	59.9	



Table 3.13: Received faecal occult blood test (FOBT) kit in mail from NBCSP,<sup>a</sup> by LGA, Victoria, 2011–12 (continued)

LGA	Received FOBT kit in mail from NBCSP						
	%	Yes 95% CI		%	No 95% CI		
		LL	UL		LL	UL	
Maroondah (C)	49.5	43.6	55.5	48.4	42.5	54.4	
Melbourne (C)	48.5	41.9	55.1	49.2	42.6	55.8	
Melton (S)	47.8	41.4	54.3	51.2	44.6	57.8	
Mildura (RC)	47.3	41.4	53.3	50.0	43.8	56.1	
Mitchell (S)	41.4	35.4	47.6	57.0	50.7	63.1	
Moira (S)	46.4	40.9	52.0	50.1	44.7	55.5	
Monash (C)	48.4	42.8	54.0	49.2	43.5	54.9	
Moonee Valley (C)	51.5	44.9	58.0	46.0	39.5	52.7	
Moorabool (S)	50.4	44.7	56.2	47.9	42.2	53.7	
Moreland (C)	47.4	41.3	53.6	49.3	43.0	55.5	
Mornington Peninsula (S)	52.4	46.5	58.2	47.0	41.3	52.9	
Mount Alexander (S)	49.7	44.3	55.0	47.3	41.8	52.8	
Moyne (S)	48.6	43.2	54.0	49.1	43.6	54.5	
Murrindindi (S)	50.3	44.8	55.7	48.7	43.4	54.2	
Nillumbik (S)	55.6	50.5	60.6	43.2	38.2	48.4	
Northern Grampians (S)	49.8	44.1	55.4	47.3	41.8	52.9	
Port Phillip (C)	53.2	47.4	58.9	43.7	37.9	49.7	
Pyrenees (S)	44.0	38.4	49.9	53.4	47.4	59.2	
Queenscliffe (B)	49.4	43.3	55.5	50.4	44.3	56.5	
South Gippsland (S)	47.1	41.9	52.3	49.9	44.9	55.0	
Southern Grampians (S)	42.0	36.5	47.7	56.1	50.3	61.7	
Stonnington (C)	56.1	50.1	61.8	43.2	37.5	49.2	
Strathbogie (S)	44.5	38.6	50.7	53.7	47.5	59.7	
Surf Coast (S)	46.5	41.1	52.0	50.8	45.4	56.2	
Swan Hill (RC)	47.5	42.0	53.0	51.7	46.2	57.2	
Towong (S)	48.1	42.6	53.6	50.9	45.5	56.4	
Wangaratta (RC)	48.2	42.5	54.0	50.6	44.7	56.4	
Warrnambool (C)	48.3	42.5	54.1	50.1	44.2	55.9	
Wellington (S)	46.7	41.1	52.3	52.4	46.7	58.0	
West Wimmera (S)	45.9	40.1	51.8	52.4	46.6	58.2	
Whitehorse (C)	50.5	44.9	56.1	48.9	43.2	54.5	
Whittlesea (C)	47.2	41.0	53.5	50.2	43.8	56.5	
Wodonga (RC)	50.8	45.1	56.5	48.7	43.0	54.3	
Wyndham (C)	43.8	37.9	49.8	54.9	48.8	60.9	
Yarra (C)	50.4	44.5	56.3	46.5	40.2	53.0	
Yarra Ranges (S)	42.5	37.0	48.3	54.5	48.6	60.4	
Yarriambiack (S)	46.6	40.9	52.5	51.5	45.6	57.3	
<b>Victoria</b>	<b>49.1</b>	<b>48.3</b>	<b>50.0</b>	<b>49.0</b>	<b>48.2</b>	<b>49.9</b>	

a. National Bowel Cancer Screening Program

Only respondents aged 50 years and over were asked whether they had received an FOBT kit sent by NBCSP.

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.

# Biomedical checks and cancer screening

Table 3.14 shows the proportion of people who received an FOBT kit in the mail who then returned the FOBT kit for testing, by LGA. A significantly higher proportion of people aged 50 years or over who lived in the LGAs of Baw Baw (S), Benalla (RC), East Gippsland (S), Gannawarra (S), Greater Dandenong (C), Greater Shepparton (C), Indigo (S), Queenscliffe (B), Wodonga (RC) and Yarra Ranges (S) completed and returned the FOBT kits for testing compared with all Victorian people aged 50 years or over. By contrast a significantly lower proportion of people who lived in Campaspe (S), Casey (C), Hume (C), Knox (C), Moira (S) and Moorabool (S) completed and returned the FOBT kits for testing compared with all Victorian people aged 50 years or over.

Table 3.14: Returned faecal occult blood test (FOBT) kit sent by NBCSP,<sup>a</sup> by LGA, Victoria, 2011–12

LGA	Returned FOBT kit sent by NBCSP						
	%	Yes		%	No		
		95% CI			95% CI		
		LL	UL		LL	UL	
Alpine (S)	63.4	54.4	71.5	35.7	27.6	44.7	
Ararat (RC)	64.5	53.6	74.1	35.0	25.5	45.9	
Ballarat (C)	68.8	56.6	78.8	31.2	21.2	43.4	
Banyule (C)	62.8	55.1	69.9	37.2	30.1	44.9	
Bass Coast (S)	69.0	57.9	78.3	31.0	21.7	42.1	
Baw Baw (S)	72.0	64.0	78.8	28.0	21.2	36.0	
Bayside (C)	65.3	56.2	73.4	34.7	26.6	43.8	
Benalla (RC)	75.8	68.2	82.0	24.2	18.0	31.8	
Boroondara (C)	56.9	47.3	66.0	42.0	33.1	51.5	
Brimbank (C)	59.4	47.9	70.0	40.6	30.0	52.1	
Buloke (S)	67.1	58.4	74.7	30.8	23.5	39.3	
Campaspe (S)	47.1	38.8	55.6	52.9	44.4	61.2	
Cardinia (S)	67.7	58.5	75.7	31.3	23.4	40.5	
Casey (C)	47.2	38.0	56.6	40.4	31.4	50.0	
Central Goldfields (S)	61.9	53.1	69.9	37.2	29.2	46.1	
Colac-Otway (S)	61.5	50.7	71.3	38.1	28.4	48.9	
Corangamite (S)	68.8	58.6	77.5	30.7	22.0	41.0	
Darebin (C)	61.4	50.8	71.0	38.6	29.0	49.2	
East Gippsland (S)	75.7	68.3	81.7	24.3	18.3	31.7	
Frankston (C)	55.7	46.7	64.3	44.3	35.7	53.3	
Gannawarra (S)	71.2	63.5	77.8	28.8	22.2	36.5	
Glen Eira (C)	54.1	44.1	63.7	45.9	36.3	55.9	
Glenelg (S)	69.4	60.9	76.8	29.9	22.6	38.4	
Golden Plains (S)	69.2	60.4	76.8	30.8	23.2	39.6	
Greater Bendigo (C)	59.8	47.4	71.1	39.6	28.3	52.0	
Greater Dandenong (C)	71.7	63.1	78.9	28.3	21.1	36.9	
Greater Geelong (C)	60.6	49.0	71.1	39.4	28.9	51.0	
Greater Shepparton (C)	75.2	67.3	81.7	24.8	18.3	32.7	
Hepburn (S)	68.0	59.0	75.8	32.0	24.2	41.0	
Hindmarsh (S)	66.6	58.3	73.9	33.4	26.1	41.7	
Hobsons Bay (C)	64.1	52.5	74.3	35.1	25.1	46.8	
Horsham (RC)	54.0	45.8	61.9	46.0	38.1	54.2	
Hume (C)	49.7	42.1	57.2	36.8	29.5	44.7	
Indigo (S)	71.4	63.3	78.3	28.6	21.7	36.7	
Kingston (C)	55.1	42.3	67.2	37.1	27.2	48.2	
Knox (C)	50.3	41.1	59.5	49.7	40.5	58.9	
Latrobe (C)	69.3	60.8	76.8	30.7	23.2	39.2	
Loddon (S)	54.5	44.2	64.4	45.5	35.6	55.8	
Macedon Ranges (S)	61.1	52.2	69.3	38.9	30.7	47.8	
Manningham (C)	63.8	55.6	71.3	35.3	27.9	43.5	
Mansfield (S)	60.2	51.5	68.2	39.8	31.8	48.5	
Maribyrnong (C)	53.9	45.4	62.1	45.3	37.1	53.8	

Table 3.14: Returned faecal occult blood test (FOBT) kit sent by NBCSP,<sup>a</sup> by LGA, Victoria, 2011–12 (continued)

LGA	Returned FOBT kit sent by NBCSP						
	%	Yes 95% CI		%	No 95% CI		
		LL	UL		LL	UL	
Maroondah (C)	59.6	50.0	68.5	39.5	30.7	49.0	
Melbourne (C)	56.9	46.7	66.6	43.1	33.4	53.3	
Melton (S)	52.2	40.7	63.6	47.8	36.4	59.3	
Mildura (RC)	55.8	46.9	64.4	31.8	23.6	41.2	
Mitchell (S)	62.1	53.5	70.0	37.9	30.0	46.5	
Moira (S)	50.6	41.6	59.4	35.0	26.8	44.1	
Monash (C)	53.2	44.8	61.4	45.2	37.3	53.4	
Moonee Valley (C)	62.9	53.9	71.1	36.2	28.1	45.1	
Moorabool (S)	40.8	32.8	49.3	59.2	50.7	67.2	
Moreland (C)	64.0	52.9	73.7	35.2	25.5	46.3	
Mornington Peninsula (S)	64.3	54.1	73.3	35.7	26.7	45.9	
Mount Alexander (S)	65.2	55.3	73.9	34.8	26.1	44.7	
Moyne (S)	53.1	42.5	63.4	46.5	36.2	57.1	
Murrindindi (S)	59.0	50.2	67.4	38.1	29.6	47.5	
Nillumbik (S)	53.4	46.2	60.4	34.2	27.4	41.6	
Northern Grampians (S)	67.9	58.4	76.2	31.7	23.5	41.2	
Port Phillip (C)	53.3	44.9	61.5	34.2	26.4	43.0	
Pyrenees (S)	64.4	52.5	74.7	35.6	25.3	47.5	
Queenscliffe (B)	74.8	66.4	81.8	23.2	16.6	31.3	
South Gippsland (S)	54.8	43.9	65.2	44.6	34.2	55.5	
Southern Grampians (S)	62.1	52.8	70.6	37.9	29.4	47.2	
Stonnington (C)	57.2	47.3	66.6	42.8	33.4	52.7	
Strathbogie (S)	65.8	56.2	74.3	31.2	23.3	40.5	
Surf Coast (S)	61.9	52.4	70.6	37.0	28.3	46.6	
Swan Hill (RC)	70.2	59.4	79.1	29.8	20.9	40.6	
Towong (S)	66.1	58.2	73.3	33.9	26.7	41.8	
Wangaratta (RC)	67.6	58.7	75.4	32.4	24.6	41.3	
Warrnambool (C)	57.1	46.3	67.2	42.9	32.8	53.7	
Wellington (S)	63.4	54.8	71.3	36.2	28.3	44.9	
West Wimmera (S)	61.9	53.1	70.0	37.5	29.5	46.3	
Whitehorse (C)	59.0	49.4	67.9	38.3	28.9	48.7	
Whittlesea (C)	58.5	47.8	68.4	34.9	25.1	46.1	
Wodonga (RC)	72.2	63.1	79.8	26.9	19.4	35.9	
Wyndham (C)	53.8	45.0	62.4	33.7	25.6	43.0	
Yarra (C)	59.8	52.0	67.1	40.2	32.9	48.0	
Yarra Ranges (S)	72.9	65.1	79.4	27.1	20.6	34.9	
Yarriambiack (S)	63.5	53.8	72.2	36.0	27.4	45.8	
<b>Victoria</b>	<b>61.2</b>	<b>59.6</b>	<b>62.9</b>	<b>38.0</b>	<b>36.4</b>	<b>39.6</b>	

a. National Bowel Cancer Screening Program

Only respondents aged 50 years and over were asked whether they had returned an FOBT kit sent by NBCSP.

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.

In order to determine the level of health literacy regarding bowel cancer, respondents aged 50 years or over were asked if they agreed or disagreed with a set of statements. These statements were:

1. Bowel cancer symptoms are noticeable and easy to detect.
2. I am too embarrassed to seek help or information on bowel cancer.
3. Treating bowel cancer in the early stages increases a person's chance of survival.
4. I am concerned or worried about getting bowel cancer.
5. It is important to check for bowel cancer even if I have no symptoms.

The proportion agreeing with each of the statements is shown in Table 3.15, by age group and sex. Overall, 24.6 per cent of adults agreed with the statement that bowel cancer was easy to detect; 7.4 per cent were too embarrassed to seek help; 95.0 per cent agreed with the statement that early treatment increased a person's chance of survival; 31.4 per cent were worried about getting bowel cancer; and 88.0 per cent agreed that it is important to check for bowel cancer even in the absence of symptoms. The proportion of men who were concerned about getting bowel cancer (33.4 per cent) was significantly higher than the proportion of women (29.7 per cent). However, there were no significant differences between the sexes for the remaining three statements.

Given that by the time any symptoms of bowel cancer become noticeable it is likely to have gone beyond the early stages thereby rendering treatment more difficult and survival more precarious, agreement with the statement 'Bowel cancer symptoms are noticeable and easy to detect' is an indication of low health literacy. The older the respondent the higher was the proportion who agreed with this statement, indicating that health literacy may decline with age.

Similarly, disagreement with the statements 'Treating bowel cancer in the early stages increases a person's chance of survival', 'I am concerned or worried about getting bowel cancer' and 'It is important to check for bowel cancer even if I have no symptoms' are indicative of low health literacy and these were also age-related, with significantly lower proportions of the older age groups agreeing with these statements.

Table 3.15: Health literacy on bowel cancer, by age group and sex, Victoria, 2011–12

Age group (years)	Bowel cancer symptoms are noticeable and easy to detect			I am too embarrassed to seek help or information on bowel cancer			Treating bowel cancer in the early stages increases a person's chance of survival			I am concerned or worried about getting bowel cancer			It is important to check for bowel cancer even if I have no symptoms		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
<b>Males</b>															
50–59	22.0	19.8	24.4	8.9	7.4	10.7	96.4	95.1	97.3	37.1	34.4	39.8	91.6	89.9	93.1
60–69	23.9	21.8	26.1	5.4	4.4	6.7	95.2	94.0	96.3	35.4	33.0	37.9	90.4	88.8	91.8
70–79	28.0	25.3	31.0	7.1	5.6	8.9	94.0	92.2	95.4	31.7	28.8	34.7	86.8	84.5	88.9
80+	31.4	27.3	35.9	10.2	7.8	13.1	88.8	85.0	91.8	20.5	16.9	24.6	75.4	71.1	79.2
<b>Total</b>	<b>24.9</b>	<b>23.6</b>	<b>26.3</b>	<b>7.6</b>	<b>6.8</b>	<b>8.5</b>	<b>94.7</b>	<b>93.9</b>	<b>95.4</b>	<b>33.4</b>	<b>31.9</b>	<b>34.8</b>	<b>89.0</b>	<b>88.0</b>	<b>90.0</b>
<b>Females</b>															
50–59	21.7	20.0	23.5	7.1	6.0	8.3	97.0	96.2	97.6	34.1	32.0	36.2	90.6	89.3	91.8
60–69	24.2	22.3	26.1	6.9	5.9	8.1	95.2	94.1	96.0	30.8	28.8	32.9	87.7	86.1	89.0
70–79	27.1	24.9	29.5	6.4	5.3	7.7	94.1	92.7	95.3	27.0	24.7	29.4	83.4	81.3	85.2
80+	28.4	25.1	31.9	8.9	7.0	11.1	92.2	90.2	93.9	17.2	14.6	20.2	77.2	74.1	80.0
<b>Total</b>	<b>24.3</b>	<b>23.2</b>	<b>25.4</b>	<b>7.2</b>	<b>6.5</b>	<b>7.8</b>	<b>95.3</b>	<b>94.7</b>	<b>95.7</b>	<b>29.7</b>	<b>28.5</b>	<b>30.9</b>	<b>87.0</b>	<b>86.2</b>	<b>87.8</b>
<b>Persons</b>															
50–59	21.8	20.4	23.3	8.0	7.0	9.0	96.7	96.0	97.3	35.5	33.8	37.2	91.1	90.1	92.1
60–69	24.0	22.6	25.5	6.2	5.5	7.0	95.2	94.4	95.9	33.1	31.5	34.7	89.0	87.9	90.0
70–79	27.5	25.8	29.4	6.7	5.8	7.7	94.0	93.0	95.0	29.1	27.3	31.0	84.9	83.4	86.3
80+	29.7	27.1	32.5	9.4	7.9	11.2	90.7	88.7	92.4	18.7	16.5	21.1	76.4	73.9	78.8
<b>Total</b>	<b>24.6</b>	<b>23.7</b>	<b>25.4</b>	<b>7.4</b>	<b>6.9</b>	<b>7.9</b>	<b>95.0</b>	<b>94.5</b>	<b>95.4</b>	<b>31.4</b>	<b>30.5</b>	<b>32.4</b>	<b>88.0</b>	<b>87.3</b>	<b>88.6</b>

Only respondents aged 50 years and over were asked questions relating to health literacy on bowel cancer.

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

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

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

Table 3.16 shows health literacy for bowel cancer, by Department of Health region and sex.

There were no regional differences in the proportions of men and women who responded affirmatively to the statements 'Bowel cancer symptoms are noticeable and easy to detect' and 'I am too embarrassed to seek help or information on bowel cancer'.

There were significantly higher proportions of men and women who lived in rural compared with metropolitan Victoria who agreed with the statements that 'Treating bowel cancer in the early stages increases a person's chance of survival' and 'It is important to check for bowel cancer even if I have no symptoms'. This indicates that Victorians who lived in the rural regions have a higher level of health literacy regarding bowel cancer than their metropolitan counterparts. This is also supported by the previous finding that higher proportions of those who lived in rural Victoria completed and returned the FOBT kits for testing compared with their metropolitan counterparts. Rural regions of particular note include Barwon-South Western Region, Gippsland Region, Grampians Region and Hume Region.

By contrast there were significantly higher proportions of men and adults who lived in metropolitan Victoria who agreed with the statement 'I am concerned or worried about getting bowel cancer' compared with their rural counterparts. This suggests a higher level of anxiety, though not knowledge, in people who lived in metropolitan Victoria compared with their rural counterparts. This was particularly notable in men and women who lived in North & West Metropolitan Region.



Table 3.16: Health literacy on bowel cancer, by Department of Health region and sex, Victoria, 2011–12

Region	Bowel cancer symptoms are noticeable and easy to detect			I am too embarrassed to seek help or information on bowel cancer			Treating bowel cancer in the early stages increases a person's chance of survival			I am concerned or worried about getting bowel cancer			It is important to check for bowel cancer even if I have no symptoms			
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	
<b>Males</b>																
Eastern Metropolitan	24.2	21.1	27.7	5.9	4.2	8.2	94.1	91.7	95.8	29.5	26.0	33.2	88.7	86.0	90.9	
North & West Metropolitan	26.1	23.4	29.0	8.8	7.1	10.9	94.4	92.7	95.7	<b>38.1</b>	35.1	41.2	86.5	84.1	88.6	
Southern Metropolitan	25.2	22.2	28.4	7.6	5.9	9.8	93.6	91.6	95.1	33.5	30.2	36.9	87.9	85.4	90.0	
<b>Metropolitan males</b>	25.3	23.6	27.1	7.6	6.5	8.8	94.0	92.9	94.9	34.1	32.2	36.0	87.7	86.3	89.0	
<i>Barwon-South Western</i>	25.7	20.8	31.2	7.7	5.3	11.0	96.4	92.5	98.3	33.1	28.0	38.7	89.5	86.1	92.1	
<i>Gippsland</i>	22.0	18.8	25.6	9.4	7.1	12.5	<b>97.6</b>	96.1	98.5	29.9	26.3	33.8	90.8	88.2	92.8	
<i>Grampians</i>	26.4	22.4	30.8	6.7	5.1	8.7	96.0	94.1	97.4	32.5	28.4	36.9	91.2	88.8	93.1	
<i>Hume</i>	23.9	21.2	26.9	6.3	4.8	8.2	96.0	94.4	97.1	30.6	27.5	33.8	89.8	87.6	91.6	
<i>Loddon Mallee</i>	23.4	20.3	26.8	8.2	6.1	11.0	95.6	93.5	97.0	32.5	28.9	36.4	90.2	87.6	92.2	
<b>Rural males</b>	24.2	22.4	26.1	7.7	6.7	8.9	96.3	95.3	97.1	31.8	29.9	33.8	90.1	88.9	91.2	
<b>Total</b>	<b>24.9</b>	<b>23.6</b>	<b>26.3</b>	<b>7.6</b>	<b>6.8</b>	<b>8.5</b>	<b>94.7</b>	<b>93.9</b>	<b>95.4</b>	<b>33.4</b>	<b>31.9</b>	<b>34.8</b>	<b>88.4</b>	<b>87.4</b>	<b>89.4</b>	

Only respondents aged 50 years and over were asked questions relating to health literacy on bowel cancer.

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.

Table 3.16: Health literacy on bowel cancer, by Department of Health region and sex, Victoria, 2011–12 (continued)

Region	Bowel cancer symptoms are noticeable and easy to detect			I am too embarrassed to seek help or information on bowel cancer			Treating bowel cancer in the early stages increases a person's chance of survival			I am concerned or worried about getting bowel cancer			It is important to check for bowel cancer even if I have no symptoms			
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	
<b>Females</b>																
Eastern Metropolitan	23.3	20.8	26.0	6.9	5.4	8.7	96.1	94.7	97.1	28.9	26.1	32.0	86.9	84.7	88.8	
North & West Metropolitan	25.7	23.5	28.1	9.1	7.7	10.8	92.6	91.2	93.8	35.4	33.0	37.9	82.8	80.8	84.7	
Southern Metropolitan	24.5	22.2	26.9	5.7	4.6	7.0	95.6	94.4	96.5	29.0	26.5	31.6	87.2	85.4	88.8	
<b>Metropolitan females</b>	24.6	23.2	26.0	7.2	6.4	8.1	94.6	93.9	95.3	31.4	29.9	32.9	85.6	84.4	86.6	
Barwon-South Western	24.9	20.9	29.3	5.3	3.6	7.8	97.7	96.1	98.7	25.8	21.9	30.1	89.0	85.4	91.7	
Gippsland	22.6	20.0	25.5	7.9	6.3	10.0	96.2	94.7	97.2	26.9	24.0	29.9	85.3	82.9	87.5	
Grampians	22.8	19.9	26.0	8.0	6.2	10.2	96.9	95.6	97.8	25.9	22.7	29.3	91.8	90.0	93.3	
Hume	23.3	21.2	25.6	6.3	5.1	7.8	96.6	95.6	97.4	26.6	24.3	29.1	89.4	87.8	90.8	
Loddon Mallee	23.2	20.7	25.9	8.1	6.5	10.1	95.7	93.8	97.1	24.1	21.4	27.1	88.9	86.5	90.9	
<b>Rural females</b>	23.5	22.1	25.0	7.0	6.2	7.9	96.7	96.1	97.2	25.6	24.2	27.1	88.7	87.5	89.8	
<b>Total</b>	<b>24.3</b>	<b>23.2</b>	<b>25.4</b>	<b>7.2</b>	<b>6.5</b>	<b>7.8</b>	<b>95.3</b>	<b>94.7</b>	<b>95.7</b>	<b>29.7</b>	<b>28.5</b>	<b>30.9</b>	<b>86.5</b>	<b>85.7</b>	<b>87.3</b>	

Only respondents aged 50 years and over were asked questions relating to health literacy on bowel cancer.

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.

Table 3.16: Health literacy on bowel cancer, by Department of Health region and sex, Victoria, 2011–12 (continued)

Region	Bowel cancer symptoms are noticeable and easy to detect			I am too embarrassed to seek help or information on bowel cancer			Treating bowel cancer in the early stages increases a person's chance of survival			I am concerned or worried about getting bowel cancer			It is important to check for bowel cancer even if I have no symptoms			
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	
<b>Persons</b>																
Eastern Metropolitan	23.7	21.7	25.9	6.4	5.2	7.8	95.2	93.9	96.2	29.2	26.9	31.6	87.8	86.1	89.3	
North & West Metropolitan	25.9	24.1	27.7	9.0	7.8	10.3	93.4	92.4	94.4	36.6	34.7	38.6	84.6	83.1	86.1	
Southern Metropolitan	24.8	23.0	26.8	6.6	5.6	7.8	94.6	93.5	95.5	31.1	29.0	33.2	87.4	85.9	88.7	
<b>Metropolitan persons</b>	24.9	23.8	26.0	7.4	6.7	8.1	94.3	93.7	94.9	32.7	31.5	33.9	86.6	85.7	87.4	
Barwon-South Western	25.2	22.0	28.8	6.4	4.9	8.4	97.1	95.0	98.3	29.3	26.0	32.8	89.4	86.9	91.4	
Gippsland	22.1	20.0	24.4	8.7	7.2	10.4	96.7	95.7	97.5	28.3	26.0	30.8	87.9	86.2	89.5	
Grampians	24.5	22.0	27.2	7.4	6.1	8.8	96.6	95.4	97.4	29.1	26.4	31.9	91.6	90.2	92.8	
Hume	23.6	21.8	25.4	6.2	5.3	7.3	96.2	95.3	97.0	28.6	26.6	30.5	89.6	88.2	90.7	
Loddon Mallee	23.3	21.3	25.4	8.2	6.8	9.9	95.7	94.4	96.7	28.2	25.9	30.7	89.4	87.7	90.9	
<b>Rural persons</b>	23.8	22.7	25.0	7.4	6.7	8.1	96.5	95.9	97.0	28.6	27.4	29.9	89.4	88.6	90.2	
<b>Total</b>	<b>24.6</b>	<b>23.7</b>	<b>25.4</b>	<b>7.4</b>	<b>6.9</b>	<b>7.9</b>	<b>95.0</b>	<b>94.5</b>	<b>95.4</b>	<b>31.4</b>	<b>30.5</b>	<b>32.4</b>	<b>87.4</b>	<b>86.7</b>	<b>88.0</b>	

Only respondents aged 50 years and over were asked questions relating to health literacy on bowel cancer.

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.

### 3.4 Bowel cancer detection

In contrast to screening, people who present with symptoms of concern are usually referred for investigation. Respondents were asked 'In the last two years have you had a bowel examination to detect bowel cancer?'. Given the wording of the question it is not possible to know if all the affirmative respondents were symptomatic or had merely participated in the NBCSP and therefore the estimates are likely to reflect both. However, the subsequent question regarding the nature of the investigation received will give a better indication of the proportion that presented with symptoms, since it is highly unlikely that a person would be the recipient of a colonoscopy in the absence of symptoms, unless they were to have had one performed privately.

Table 3.17 shows the proportion of adults aged 50 years or over who responded affirmatively that they had had an examination to detect bowel cancer in the previous two years, by age group and sex.

Overall, 30.5 per cent of all Victorian adults aged 50 years or over had had a bowel examination to detect cancer in the two years prior to the survey. This was significantly higher in men (33.1 per cent) than women (28.2 per cent). A significantly higher proportion of people aged 60–79 years had had a bowel examination to detect cancer compared with all Victorian people aged 50 years or over.

**Table 3.17: Had examination to detect bowel cancer, 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
50–59	29.6	27.1	32.1	26.8	24.9	28.8	28.1	26.6	29.7
60–69	36.6	34.2	39.0	31.1	29.1	33.1	<b>33.7</b>	32.2	35.3
70–79	37.0	34.0	40.1	30.3	28.0	32.7	<b>33.3</b>	31.5	35.2
80+	30.2	26.1	34.5	24.3	21.4	27.5	<b>26.9</b>	24.5	29.5
<b>Total</b>	<b>33.1</b>	<b>31.7</b>	<b>34.6</b>	<b>28.2</b>	<b>27.1</b>	<b>29.4</b>	<b>30.5</b>	<b>29.6</b>	<b>31.4</b>

Only respondents aged 50 years and over were asked whether they had a test for bowel cancer screening in the past two years.

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

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

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

Respondents aged 50 years or over who reported having had a bowel examination for cancer in the previous two years were subsequently asked to indicate whether they had had a colonoscopy, FOBT or barium enema. Table 3.18 shows the type of examination received by respondents who reported that they had had an examination to detect bowel cancer in the previous two years, by age group and sex.

Overall, 69.7 per cent of all Victorian people aged 50 years or over had had a colonoscopy, 3.0 per cent had had a barium enema and 34.3 per cent had had an FOBT. While those who had had a colonoscopy or barium enema were most likely to have presented with symptoms, it is not possible to distinguish between those who were asymptomatic and participating in the NBCSP and those who had had an FOBT in response to having symptoms.

Table 3.18 shows the proportion of men and women who had had an examination to detect bowel cancer in the previous two years, by the type of examination. Overall, 69.7 per cent of Victorian adults who had had a bowel examination in the previous two years had had a colonoscopy; higher in women than men. There was no difference between the sexes in the proportion who had had a barium enema. By contrast a significantly higher proportion of men compared with women had had an FOBT.

The proportion of people who had had a colonoscopy or barium enema increased with age. This is unsurprising since the incidence of bowel cancer increases with age. By contrast the proportion who had had an FOBT declined with age, most likely reflecting those who were participants of the NBCSP since there is an upper age limit for eligibility.

**Table 3.18: Type of examination in previous two years to detect bowel cancer, by age group and sex, Victoria, 2011–12**

Age group (years)	Colonoscopy			Barium enema			FOBT		
	%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL
<b>Males</b>									
50–59	57.8	52.7	62.7	2.4*	1.4	4.2	49.0	44.0	54.0
60–69	66.8	63.0	70.4	3.6	2.2	5.9	34.7	31.1	38.5
70–79	71.8	66.9	76.3	3.6*	2.1	6.1	30.2	25.7	35.0
80+	78.7	71.6	84.5	5.5*	2.8	10.7	19.2	13.7	26.2
<b>Total</b>	<b>65.6</b>	<b>63.1</b>	<b>68.1</b>	<b>3.4</b>	<b>2.6</b>	<b>4.4</b>	<b>37.3</b>	<b>34.9</b>	<b>39.9</b>
<b>Females</b>									
50–59	70.1	66.2	73.7	1.9*	1.1	3.2	38.2	34.2	42.3
60–69	74.4	71.0	77.5	2.4*	1.3	4.2	31.0	27.6	34.6
70–79	78.2	74.0	81.9	3.2	1.9	5.1	22.9	19.3	26.9
80+	79.5	73.2	84.7	4.8*	2.5	9.2	22.7	17.3	29.2
<b>Total</b>	<b>74.1</b>	<b>71.9</b>	<b>76.1</b>	<b>2.5</b>	<b>1.9</b>	<b>3.3</b>	<b>31.0</b>	<b>28.9</b>	<b>33.2</b>
<b>Persons</b>									
50–59	63.8	60.5	66.9	2.1	1.4	3.2	43.7	40.4	47.0
60–69	70.4	67.9	72.8	3.0	2.1	4.4	32.9	30.4	35.6
70–79	75.0	71.8	77.9	3.4	2.4	4.9	26.5	23.6	29.7
80+	79.1	74.5	83.1	5.2	3.2	8.2	21.0	17.0	25.6
<b>Total</b>	<b>69.7</b>	<b>68.0</b>	<b>71.3</b>	<b>3.0</b>	<b>2.4</b>	<b>3.6</b>	<b>34.3</b>	<b>32.7</b>	<b>36.0</b>

Only respondents aged 50 years and over were asked whether they had a test for bowel cancer screening in the past two years.

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

Data are age-specific estimates, except for 'Total', which represent the estimates for Victoria and were age-standardised to the 2011 Victorian population. Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: above/below Victoria.

Note: Estimates do not add to 100 per cent because multiple responses were allowed.

Table 3.19 shows the proportion of Victorians aged 50 years or over who had had a colonoscopy in the previous two years, by Department of Health region and sex. There was a significantly higher proportion of people aged 50 years or over who lived in metropolitan compared with rural Victoria who had had a colonoscopy in the previous two years, and this was particularly notable in Southern Metropolitan Region. By contrast there was a significantly lower proportion of people who lived in Barwon-South Western Region, Grampians Region and Loddon Mallee Region who had had a colonoscopy in the previous two years compared with all Victorian adults.

**Table 3.19: Had colonoscopy to detect bowel cancer, 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	69.5	63.2	75.2	76.6	70.9	81.5	72.7	68.3	76.6
North & West Metropolitan	66.3	60.4	71.8	76.8	72.4	80.8	71.5	67.8	75.0
Southern Metropolitan	72.2	66.5	77.2	79.5	75.2	83.2	<b>75.7</b>	72.2	79.0
<b>Metropolitan regions</b>	69.7	66.4	72.9	77.6	75.0	80.1	<b>73.6</b>	71.4	75.6
Barwon-South Western	<b>46.7</b>	37.4	56.3	<b>63.6</b>	55.9	70.7	<b>55.6</b>	49.0	62.1
Gippsland	58.1	51.0	65.0	67.8	61.6	73.4	64.7	59.6	69.5
Grampians	60.7	52.2	68.6	<b>62.8</b>	55.8	69.4	<b>61.4</b>	55.7	66.8
Hume	61.4	55.3	67.2	72.0	67.4	76.1	66.3	62.3	70.1
Loddon Mallee	<b>56.6</b>	49.9	63.0	<b>59.4</b>	53.4	65.1	<b>58.0</b>	53.4	62.4
<b>Rural regions</b>	<b>56.9</b>	53.2	60.6	<b>65.0</b>	61.8	68.1	<b>60.7</b>	58.1	63.1
<b>Total</b>	<b>65.6</b>	<b>63.1</b>	<b>68.1</b>	<b>74.1</b>	<b>71.9</b>	<b>76.1</b>	<b>69.7</b>	<b>68.0</b>	<b>71.3</b>

Only respondents aged 50 years and over were asked whether they had a test for bowel cancer screening in the past two years.

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.

Data were age-standardised to the 2011 Victorian population.

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

### 3.5 Breast cancer screening and detection

Breast cancer is a major health issue for women and is the second most common cause of cancer-related death in Australian women. A total of 2,680 Australian women died from breast cancer in 2007. The lifetime risk of women developing breast cancer before the age of 75 years is one in 11. Well-organised mammographic screening can substantially reduce deaths from breast cancer (DoHA 2013a). BreastScreen Victoria offers free biennial breast screening for asymptomatic women over the age of 40 years; however, the target age is 50–69 years (DoHA 2013a).

Women aged 50 years or over were asked ‘Have you ever had a mammogram as a health check?’. It should be noted that this question does not necessarily distinguish between symptomatic and asymptomatic women who had had a mammogram and therefore most likely reflects a composite of both screening and detection.

Table 3.20 shows the proportion of women aged 50 years or over who had had a mammogram at some point in their lives, by age group. Overall, 88.2 per cent of women aged 50 years or over had had a mammogram. The proportion in those aged 60–79 years was significantly higher compared with all Victorian women aged 50 years or over.

**Table 3.20: Ever had a mammogram, by age group, Victoria, 2011–12**

Age group (years)	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
50–59	85.3	83.6	86.8	14.5	13.0	16.1
60–69	<b>93.5</b>	92.4	94.5	<b>6.3</b>	5.3	7.4
70–79	<b>91.6</b>	89.9	92.9	<b>7.8</b>	6.5	9.4
80+	81.7	79.0	84.2	17.0	14.6	19.6
<b>Total</b>	<b>88.2</b>	<b>87.4</b>	<b>89.0</b>	<b>11.3</b>	<b>10.5</b>	<b>12.1</b>

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

Data are age-specific estimates, except for 'Total', which represent the estimates for Victoria and were age-standardised to the 2011 Victorian population. Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: **above/below** Victoria.

Respondents who indicated that they had had a mammogram were subsequently asked if they had had a mammogram in the previous two years. Overall, 69.7 per cent of women who had ever had a mammogram had had a mammogram in the

previous two years. This was significantly higher in those aged 50–69 years compared with all Victorian women aged 50 years or over.

**Table 3.21: Had a mammogram in previous two years, by age group, Victoria, 2011–12**

Age group (years)	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
50–59	<b>82.2</b>	80.4	84.0	<b>17.6</b>	15.9	19.4
60–69	<b>83.9</b>	82.2	85.5	<b>15.5</b>	14.0	17.2
70–79	<b>52.3</b>	49.6	55.0	<b>46.4</b>	43.8	49.1
80+	<b>24.3</b>	21.0	27.9	<b>74.0</b>	70.3	77.4
<b>Total</b>	<b>69.7</b>	<b>68.6</b>	<b>70.7</b>	<b>29.6</b>	<b>28.6</b>	<b>30.7</b>

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

Data are age-specific estimates, except for 'Total', which represent the estimates for Victoria and were age-standardised to the 2011 Victorian population. Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: **above/below** Victoria.

In order to be able to distinguish between women who were asymptomatic and being screened from women who were symptomatic or being followed-up for previous symptoms or disease, the respondent who reported having had a mammogram in the previous two years was asked to indicate the reason. Table 3.22 shows the proportion of women aged 50 years or over who had had a mammogram in the previous two years, by reason and age group.

Overall, 78.8 per cent said they had had a mammogram as a 'routine health check', suggesting that they may have been asymptomatic and were being screened. A further 6.0 per cent indicated having had a genetic predisposition to breast cancer and were presumably also asymptomatic. A further 0.4 per cent of women were on hormone replacement therapy, for which it has been suggested increases the risk of developing breast cancer, and were also presumably asymptomatic. Therefore 85.2 per cent of women aged 50 years or over

who had had a mammogram in the previous two years were asymptomatic and being screened, although not necessarily through BreastScreen Victoria.

Of the remaining women, 7.4 per cent said they had breast cancer and needed to be checked regularly, 6.4 per cent had a lump or symptom that was being investigated and 0.8 per cent gave other reasons.

A significantly higher proportion of women aged 60–69 years said they'd had a mammogram as a routine health check compared with all Victorian women aged 50 years or over. By contrast there was a significantly lower proportion of women aged 80 years or over who had had a mammogram compared with all Victorian women aged 50 years or over.

The proportion of women who reported having had breast cancer increased with age and was highest in those aged 80 years or over.



Table 3.22: Reasons for having a mammogram in last two years, by age group, Victoria, 2011–12

Age group (years)	Had a lump / symptom			A routine health check			Have had breast cancer and need to be checked regularly			Have a family history / genetic predisposition to breast cancer			On hormone replacement therapy			Other reason		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
50–59	7.5	6.2	9.2	79.6	77.3	81.6	3.9	3.1	5.0	8.0	6.7	9.5	0.4*	0.2	0.9	0.5*	0.2	1.3
60–69	4.3	3.4	5.5	86.2	84.3	87.8	4.9	3.9	6.1	3.6	2.8	4.7	0.5	0.2	1.2	0.4*	0.2	0.9
70–79	5.7	4.3	7.5	76.5	73.2	79.5	10.4	8.3	13.1	6.3	4.7	8.4	**	**	**	**	**	**
80+	9.3	5.8	14.6	66.4	58.1	73.7	18.2	12.4	25.7	**	**	**	0.0	-	-	**	**	**
<b>Total</b>	<b>6.4</b>	<b>5.5</b>	<b>7.3</b>	<b>78.8</b>	<b>77.1</b>	<b>80.4</b>	<b>7.4</b>	<b>6.3</b>	<b>8.8</b>	<b>6.0</b>	<b>5.1</b>	<b>7.0</b>	<b>0.4</b>	<b>0.3</b>	<b>0.7</b>	<b>0.8*</b>	<b>0.4</b>	<b>1.8</b>

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

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

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

\* Estimate has a relative standard error (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.



In order to determine the proportion of women who had had a screening mammogram through BreastScreen Victoria, respondents who had had a mammogram in the previous two years were asked to indicate where they had had the mammogram performed. Table 3.23 shows the proportion of women aged 50 years or over who had had a mammogram in the previous two years, by service provider and age.

The majority of mammograms were carried out through BreastScreen Victoria (68.5 per cent). This proportion was significantly highest in women aged 60–69 years (76.1 per cent).

**Table 3.23: Service provider of mammogram, by age group, Victoria, 2011–12**

Age group (years)	Private imaging clinic			BreastScreen Victoria clinic			Public imaging clinic			Other		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL		LL	UL
50–59	14.7	12.9	16.8	70.9	68.4	73.3	12.5	10.9	14.3	0.5*	0.2	0.9
60–69	9.4	8.1	10.9	76.1	74.0	78.1	12.7	11.2	14.4	0.3*	0.2	0.6
70–79	15.3	12.8	18.3	65.1	61.5	68.5	16.9	14.4	19.8	1.4*	0.8	2.5
80+	21.8	15.5	29.8	48.0	40.0	56.2	24.5	18.5	31.7	**	**	**
<b>Total</b>	<b>13.9</b>	<b>12.6</b>	<b>15.2</b>	<b>68.5</b>	<b>66.7</b>	<b>70.2</b>	<b>15.0</b>	<b>13.7</b>	<b>16.4</b>	<b>0.6</b>	<b>0.4</b>	<b>0.9</b>

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

Data are age-specific estimates, except for 'Total', which represent the estimates for Victoria and were age-standardised to the 2011 Victorian population. Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: **above/below** Victoria.

\* Estimate has a relative standard error (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 3.24 shows the proportion of women aged 50 years or over who had ever had a mammogram, by Department of Health region and sex. There was no difference between women who lived in rural compared with metropolitan Victoria. There were no regional differences with the exception that there was a significantly lower proportion of women aged 50 years or over who lived in Grampians Region who had ever had a mammogram compared with all women aged 50 years or over.

**Table 3.24: Ever had a mammogram, by Department of Health region, Victoria, 2011–12**

Region	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
Eastern Metropolitan	89.1	86.9	90.9	10.6	8.7	12.7
North & West Metropolitan	88.1	86.3	89.7	11.2	9.7	12.9
Southern Metropolitan	89.0	87.2	90.7	10.6	9.0	12.5
<b>Metropolitan females</b>	88.7	87.6	89.6	10.9	9.9	11.9
Barwon-South Western	86.6	82.8	89.7	12.8	9.8	16.6
Gippsland	87.4	85.0	89.4	12.4	10.4	14.8
Grampians	84.5	81.4	87.2	14.3	11.7	17.4
Hume	88.1	86.2	89.7	11.8	10.2	13.6
Loddon Mallee	88.7	86.6	90.5	11.0	9.2	13.1
<b>Rural females</b>	87.1	85.9	88.3	12.4	11.3	13.7
<b>Total</b>	<b>88.2</b>	<b>87.4</b>	<b>89.0</b>	<b>11.3</b>	<b>10.5</b>	<b>12.1</b>

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.

Data were age-standardised to the 2011 Victorian population.

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

Table 3.25 shows the proportion of women aged 50 years or over who had had a mammogram in the previous two years, by Department of Health region and sex. There was no significant difference between women who lived in rural compared with metropolitan Victoria, nor was there any significant regional difference compared with all Victorian women aged 50 years or over.

**Table 3.25: Had a mammogram in last two years, by Department of Health region, Victoria, 2011–12**

Region	%	Yes		%	No	
		95% CI			95% CI	
		LL	UL		LL	UL
Eastern Metropolitan	69.9	67.1	72.5	29.5	26.9	32.3
North & West Metropolitan	69.3	67.1	71.4	30.1	28.1	32.3
Southern Metropolitan	69.6	67.2	71.9	29.5	27.3	31.9
<b>Metropolitan females</b>	69.6	68.2	70.9	29.8	28.4	31.1
Barwon-South Western	67.7	63.3	71.9	32.0	27.8	36.5
Gippsland	67.7	64.8	70.5	31.3	28.5	34.2
Grampians	67.1	63.7	70.4	31.5	28.1	35.1
Hume	72.9	70.6	75.1	26.1	23.9	28.4
Loddon Mallee	73.0	70.6	75.2	26.3	23.9	28.7
<b>Rural females</b>	69.9	68.4	71.5	29.3	27.8	30.9
<b>Total</b>	<b>69.7</b>	<b>68.6</b>	<b>70.7</b>	<b>29.6</b>	<b>28.6</b>	<b>30.7</b>

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.

Data were age-standardised to the 2011 Victorian population.

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

Table 3.26 shows the proportion of women aged 50 years or over who had had a mammogram in the previous two years, by reason and Department of Health region. There were no differences between women by reason given for their mammogram across regions or between those who lived in rural compared with metropolitan Victoria.

Table 3.26: Reasons for having mammogram in last two years, by Department of Health region, Victoria, 2011–12

Region	Had a lump / symptom			A routine health check			Have had breast cancer and need to be checked regularly			Have a family history / genetic predisposition to breast cancer			On hormone replacement therapy			Other reason		
	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL	%	LL	UL
Eastern Metropolitan	6.2	4.4	8.6	79.3	75.4	82.7	8.4	6.2	11.4	4.6	3.2	6.6	**	**	**	**	**	**
North & West Metropolitan	6.6	4.9	8.7	81.5	78.4	84.3	7.1	5.1	9.7	4.1	3.1	5.4	0.5*	0.2	1.0	**	**	**
Southern Metropolitan	6.6	4.9	8.9	75.7	71.7	79.3	6.7	5.0	9.0	8.5	6.1	11.7	0.3*	0.1	0.6	**	**	**
<b>Metropolitan females</b>	6.5	5.4	7.7	78.9	76.7	80.8	7.1	5.8	8.7	5.9	4.7	7.3	0.5*	0.3	0.9	1.0*	0.4	2.6
Barwon-South Western	6.0*	3.5	9.7	76.2	69.8	81.7	10.0	6.3	15.5	7.6	4.7	11.9	0.0	0.0	0.0	**	**	**
Gippsland	5.8	4.0	8.2	79.8	76.1	83.0	6.7	4.8	9.3	7.0	5.2	9.3	**	**	**	**	**	**
Grampians	6.8	4.5	10.1	81.7	77.3	85.3	4.7	3.1	7.1	5.3	3.7	7.6	**	**	**	**	**	**
Hume	7.1	5.4	9.2	79.6	76.6	82.3	5.3	3.9	7.1	7.5	5.8	9.6	**	**	**	0.2*	0.1	0.4
Loddon Mallee	6.0	4.0	8.9	79.7	75.8	83.1	8.4	6.2	11.4	4.3	3.0	6.3	**	**	**	**	**	**
<b>Rural females</b>	6.3	5.1	7.6	78.7	75.9	81.2	8.0	5.9	10.7	6.3	5.3	7.5	0.2*	0.1	0.4	0.4*	0.2	0.8
<b>Total</b>	<b>6.4</b>	<b>5.5</b>	<b>7.3</b>	<b>78.8</b>	<b>77.1</b>	<b>80.4</b>	<b>7.4</b>	<b>6.3</b>	<b>8.8</b>	<b>6.0</b>	<b>5.1</b>	<b>7.0</b>	<b>0.4</b>	<b>0.3</b>	<b>0.7</b>	<b>0.8*</b>	<b>0.4</b>	<b>1.8</b>

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

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

Data were age-standardised to the 2011 Victorian population.

\* 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 3.27 shows the proportion of women aged 50 years or over who had had a mammogram in the previous two years, by service provider and Department of Health region. While there was no significant difference between women who lived in rural compared with metropolitan Victoria in the proportion of women who had had a mammogram through BreastScreen Victoria, there was a significantly lower proportion of women who lived in Gippsland Region. However, Gippsland Region had a significantly higher proportion of women who had had a mammogram at a public imaging clinic, suggesting that public imaging clinics in Gippsland are fulfilling some of the role of BreastScreen Victoria.

**Table 3.27: Service provider of mammogram, by Department of Health region, Victoria, 2011–12**

Region	Private imaging clinic			BreastScreen Victoria clinic			Public imaging clinic			Other		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI	
		LL	UL		LL	UL		LL	UL		LL	UL
Eastern Metropolitan	15.8	13.0	19.2	72.2	68.0	76.1	9.1	6.9	11.9	0.4*	0.2	1.1
North & West Metropolitan	14.2	11.7	17.3	65.8	62.3	69.2	16.9	14.4	19.7	0.7*	0.3	1.7
Southern Metropolitan	17.5	14.9	20.5	65.9	61.8	69.7	13.3	10.5	16.6	0.6*	0.3	1.4
<b>Metropolitan females</b>	15.7	14.1	17.4	67.7	65.4	69.9	13.6	11.9	15.5	0.6*	0.4	1.0
Barwon-South Western	9.6	7.1	13.1	74.6	69.5	79.1	12.1	9.0	16.2	**	**	**
Gippsland	5.7	4.2	7.8	60.8	56.8	64.6	31.7	28.2	35.5	**	**	**
Grampians	12.7	9.4	17.0	67.8	63.9	71.6	17.4	13.9	21.4	0.2*	0.1	0.5
Hume	10.6	8.8	12.8	67.7	64.1	71.1	20.4	17.5	23.7	0.6*	0.3	1.3
Loddon Mallee	10.4	7.8	13.8	73.8	69.6	77.5	14.5	11.6	18.0	**	**	**
<b>Rural females</b>	9.4	8.1	10.9	70.3	67.8	72.7	18.4	16.5	20.5	0.5	0.3	0.7
<b>Total</b>	<b>13.9</b>	<b>12.6</b>	<b>15.2</b>	<b>68.5</b>	<b>66.7</b>	<b>70.2</b>	<b>15.0</b>	<b>13.7</b>	<b>16.4</b>	<b>0.6</b>	<b>0.4</b>	<b>0.9</b>

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

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

Data were age-standardised to the 2011 Victorian population.

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

\* Estimate has a relative standard error (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 3.28 shows the proportion of women aged 50 years or over who had had a mammogram in the previous two years, by LGA. There were significantly higher proportions of women aged 50 years or over who had had a mammogram in the previous two years and lived in the LGAs of Brimbank (C), Glenelg (S), Mansfield (S), Monash (C), Southern Grampians (S), Swan Hill (RC) and Wangaratta (RC) compared with all Victorian women aged 50 years or over. By contrast there were significantly lower proportions of women in those who lived in Cardinia (S), Hepburn (S) and Moorabool (S) compared with all Victorian women aged 50 years or over.

Table 3.28: Had a mammogram in last two years, by LGA, Victoria, 2011–12

LGA	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
Alpine (S)	71.9	66.4	76.8	26.8	21.9	32.4
Ararat (RC)	68.5	61.0	75.1	31.3	24.6	38.8
Ballarat (C)	68.9	61.2	75.7	29.8	22.9	37.8
Banyule (C)	64.2	57.1	70.7	35.0	28.6	41.9
Bass Coast (S)	62.5	54.8	69.5	36.6	29.5	44.2
Baw Baw (S)	64.8	56.9	72.1	33.1	25.8	41.3
Bayside (C)	70.3	63.5	76.2	28.1	22.2	34.9
Benalla (RC)	72.3	65.7	78.0	27.7	22.0	34.3
Boroondara (C)	70.6	62.2	77.7	28.6	21.5	36.9
Brimbank (C)	79.5	71.3	85.8	20.5	14.2	28.7
Buloke (S)	76.2	70.1	81.4	22.5	17.5	28.4
Campaspe (S)	74.6	68.7	79.7	24.9	19.8	30.8
Cardinia (S)	60.6	52.0	68.5	39.4	31.5	48.0
Casey (C)	75.6	67.5	82.2	23.6	17.1	31.6
Central Goldfields (S)	63.6	56.3	70.4	35.8	29.0	43.2
Colac-Otway (S)	65.7	57.9	72.8	33.5	26.5	41.4
Corangamite (S)	69.2	61.5	75.9	29.5	22.9	37.0
Darebin (C)	68.7	60.8	75.7	31.3	24.3	39.2
East Gippsland (S)	71.9	64.4	78.4	28.1	21.6	35.6
Frankston (C)	69.0	62.3	74.9	30.3	24.3	36.9
Gannawarra (S)	76.1	69.3	81.8	23.9	18.2	30.7
Glen Eira (C)	65.8	57.6	73.2	34.2	26.8	42.4
Glenelg (S)	79.8	72.3	85.7	20.2	14.3	27.7
Golden Plains (S)	71.7	62.8	79.2	26.2	18.4	36.0
Greater Bendigo (C)	75.7	68.6	81.6	23.3	17.4	30.5
Greater Dandenong (C)	69.4	61.5	76.3	28.6	22.0	36.2
Greater Geelong (C)	64.3	56.1	71.7	35.7	28.3	43.9
Greater Shepparton (C)	74.8	67.9	80.6	24.5	18.8	31.3
Hepburn (S)	56.6	48.7	64.2	41.6	33.9	49.8
Hindmarsh (S)	64.5	57.0	71.5	34.6	27.8	42.0
Hobsons Bay (C)	67.3	59.5	74.3	32.7	25.7	40.5
Horsham (RC)	73.8	67.1	79.6	25.2	19.5	32.0
Hume (C)	66.1	58.0	73.3	33.9	26.7	42.0
Indigo (S)	68.2	61.2	74.4	31.8	25.6	38.8
Kingston (C)	66.0	57.9	73.2	34.0	26.8	42.1
Knox (C)	61.7	53.2	69.6	37.6	29.6	46.2
Latrobe (C)	68.9	62.3	74.9	30.4	24.5	37.0
Loddon (S)	68.6	61.8	74.7	31.4	25.3	38.2
Macedon Ranges (S)	73.2	66.3	79.1	26.3	20.4	33.1
Manningham (C)	71.5	63.3	78.6	28.5	21.4	36.7
Mansfield (S)	79.5	72.0	85.4	18.9	13.2	26.3
Maribyrnong (C)	65.9	55.5	75.0	32.2	23.1	42.9

Table 3.28: Had a mammogram in last two years, by LGA, Victoria, 2011–12 (continued)

LGA	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
Maroondah (C)	74.9	67.4	81.1	24.5	18.3	31.9
Melbourne (C)	72.4	65.4	78.5	26.9	20.9	33.9
Melton (S)	76.6	65.8	84.8	23.4	15.2	34.2
Mildura (RC)	71.6	65.9	76.7	28.4	23.3	34.1
Mitchell (S)	77.3	68.9	83.9	19.9	13.6	28.1
Moira (S)	71.3	64.4	77.3	28.0	22.0	34.9
Monash (C)	80.6	74.6	85.5	18.7	14.0	24.6
Moonee Valley (C)	73.6	66.5	79.7	23.8	17.5	31.4
Moorabool (S)	60.6	52.3	68.3	39.4	31.7	47.7
Moreland (C)	65.5	57.9	72.3	33.9	27.1	41.5
Mornington Peninsula (S)	74.4	67.5	80.2	25.6	19.8	32.5
Mount Alexander (S)	70.0	63.0	76.2	29.8	23.6	36.8
Moyne (S)	66.4	59.5	72.6	33.0	26.7	40.0
Murrindindi (S)	70.1	62.1	77.0	29.4	22.5	37.4
Nillumbik (S)	71.0	61.1	79.3	29.0	20.7	38.9
Northern Grampians (S)	66.6	60.4	72.2	33.4	27.8	39.6
Port Phillip (C)	71.1	62.8	78.2	27.4	20.5	35.6
Pyrenees (S)	66.6	58.5	73.8	32.0	24.8	40.0
Queenscliffe (B)	69.2	61.8	75.7	30.6	24.1	38.0
South Gippsland (S)	72.5	65.8	78.3	26.9	21.1	33.6
Southern Grampians (S)	78.5	71.2	84.4	21.5	15.6	28.8
Stonnington (C)	72.1	65.5	77.9	25.6	19.8	32.4
Strathbogie (S)	63.6	56.4	70.3	34.0	27.6	41.1
Surf Coast (S)	68.2	61.2	74.5	31.8	25.5	38.8
Swan Hill (RC)	78.7	71.9	84.2	19.5	14.2	26.4
Towong (S)	67.2	59.6	74.1	31.5	24.8	39.1
Wangaratta (RC)	79.9	73.2	85.2	19.5	14.1	26.3
Warrnambool (C)	68.2	60.9	74.8	30.9	24.3	38.3
Wellington (S)	66.9	60.1	73.1	31.3	25.1	38.2
West Wimmera (S)	71.0	63.6	77.4	28.4	22.0	35.9
Whitehorse (C)	71.0	63.3	77.7	28.1	21.6	35.7
Whittlesea (C)	71.8	64.2	78.4	27.7	21.2	35.4
Wodonga (RC)	72.6	64.7	79.3	25.9	19.3	33.9
Wyndham (C)	72.4	62.9	80.2	27.0	19.2	36.4
Yarra (C)	67.5	60.3	74.0	31.3	24.9	38.4
Yarra Ranges (S)	63.0	55.6	69.8	36.0	29.2	43.5
Yarriambiack (S)	74.8	69.2	79.6	24.6	19.7	30.3
<b>Victoria</b>	<b>70.1</b>	<b>69.0</b>	<b>71.1</b>	<b>29.3</b>	<b>28.2</b>	<b>30.3</b>

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.

### 3.6 Cervical cancer screening

Cervical cancer is one of the few cancers where screening can detect pre-cancerous lesions that can be effectively treated. The most common type of cervical cancer (squamous) usually takes more than 10 years to develop. A Pap test every two years can prevent the most common form of cervical cancer in up to 90 per cent of cases and is the best protection against cervical cancer. The National Cervical Screening Program recommends that all women who have ever had sexual intercourse need to have regular Pap tests, including those who no longer have sex. Women should have their first Pap test around the age of 18–20 years, or a year or two after first having sexual intercourse, and to continue to be screened throughout their lifetime until the age of 70 years. At 70 years, a woman's general practitioner may advise that it is safe to stop having Pap tests if previous tests have been normal (DoHA 2013c).

In the survey, female respondents were asked if they had ever had a Pap test. Table 3.29 shows the proportion of women who had ever had a Pap test, by age group. Overall, 86.2 per cent of women had ever had a Pap test, while 13.4 per cent had not.

The proportion of women aged 35 years or over who responded 'yes' was significantly higher than the proportion of all Victorian women overall. In contrast the proportion of women aged 18–24 years who answered 'yes' was significantly lower compared with the proportion of all Victorian women.

Table 3.29: Ever had a Pap smear, by age group, Victoria, 2011–12

Age group (years)	Yes				No		
	%	95% CI		%	95% CI		
		LL	UL		LL	UL	
18–24	36.8	31.9	42.0	63.2	58.0	68.1	
25–34	87.6	84.4	90.2	11.9	9.3	15.0	
35–44	96.8	95.8	97.6	2.8	2.1	3.7	
45–54	97.7	96.9	98.3	2.1	1.6	2.9	
55–64	97.9	97.2	98.4	2.0	1.5	2.7	
65+	91.9	91.0	92.8	7.4	6.6	8.3	
<b>Total</b>	<b>86.2</b>	<b>85.2</b>	<b>87.1</b>	<b>13.4</b>	<b>12.4</b>	<b>14.4</b>	

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

Data are age-specific estimates, except for 'Totals', which represent the estimates for Victoria and were age-standardised to the 2011 Victorian population. Estimates that are (statistically) significantly different to the corresponding estimate for Victoria are identified by colour as follows: **above/below** Victoria.



Female respondents who indicated that they had ever had a Pap test were subsequently asked if they had had the test in the previous two years. Table 3.30 shows the proportion of women who had had a Pap test in the previous two years, by age group. Overall, 70.8 per cent of women who had ever had a Pap test had had one in the previous two years.

There were significantly higher proportions of women aged 18–54 years who had had a Pap test in the previous two years compared with all Victorian women, with the highest proportion being in those aged 18–24 years. By contrast there were significantly lower proportions of women aged 55 years or over who had had a Pap test in the previous two years compared with all Victorian women.

**Table 3.30: Had a Pap smear in the past two years,<sup>a</sup> by age group, Victoria, 2011–12**

Age group (years)	%	Yes		%	No	
		95% CI			95% CI	
		LL	UL		LL	UL
18–24	94.0	90.1	96.4	5.8*	3.4	9.7
25–34	82.6	79.6	85.3	17.1	14.4	20.2
35–44	79.7	77.6	81.6	19.4	17.5	21.5
45–54	76.1	74.1	78.0	21.1	19.3	23.1
55–64	67.1	65.0	69.1	27.8	25.9	29.7
65+	34.5	32.7	36.3	59.0	57.2	60.9
<b>Total</b>	<b>70.8</b>	<b>69.9</b>	<b>71.8</b>	<b>26.6</b>	<b>25.7</b>	<b>27.5</b>

a. Female survey participants were able to select 'not applicable' as a response to this question. They have been excluded from the denominator when calculating estimates.

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

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

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

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

Table 3.31 shows the proportion of women who had ever had a Pap test, by Department of Health region. Overall, there were significantly higher proportions of women who lived in rural compared with metropolitan Victoria that had ever had a Pap test, with significantly higher proportions of women living in Grampians Region and Hume Region who had ever had a Pap test compared with all Victorian women.

**Table 3.31: Ever had a Pap smear, by Department of Health region, Victoria, 2011–12**

Region	Yes			No		
	%	95% CI		%	95% CI	
		LL	UL		LL	UL
Eastern Metropolitan	84.6	81.1	87.5	14.9	12.0	18.4
North & West Metropolitan	84.3	82.6	85.8	15.0	13.5	16.6
Southern Metropolitan	87.9	85.9	89.6	11.9	10.2	13.9
<b>Metropolitan females</b>	85.6	84.4	86.7	13.9	12.8	15.0
Barwon-South Western	85.9	84.2	87.5	13.7	12.2	15.4
Gippsland	89.2	86.2	91.6	10.7	8.3	13.7
Grampians	<b>90.5</b>	87.9	92.5	<b>9.3</b>	7.2	11.8
Hume	<b>90.9</b>	88.4	93.0	<b>8.9</b>	6.9	11.5
Loddon Mallee	88.1	83.6	91.4	11.8	8.4	16.2
<b>Rural females</b>	88.5	86.9	89.8	11.3	10.0	12.9
<b>Total</b>	<b>86.2</b>	<b>85.2</b>	<b>87.1</b>	<b>13.4</b>	<b>12.4</b>	<b>14.4</b>

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.

Data were age-standardised to the 2011 Victorian population.

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

Table 3.32 shows the proportion of women who had had a Pap test in the previous two years, by Department of Health region. There were significantly lower proportions of women who lived in rural compared with metropolitan Victoria who had had a Pap test in the previous two years, particularly those women who lived in Grampians Region.

**Table 3.32: Had a Pap smear in the past two years,<sup>a</sup> by Department of Health region, Victoria, 2011–12**

Region	%	Yes		%	No	
		95% CI			95% CI	
		LL	UL		LL	UL
Eastern Metropolitan	71.4	68.7	74.0	26.2	23.7	28.9
North & West Metropolitan	71.9	70.2	73.5	25.5	23.9	27.3
Southern Metropolitan	71.6	69.5	73.6	25.8	23.8	27.9
<b>Metropolitan females</b>	71.7	70.5	72.8	25.8	24.6	26.9
Barwon-South Western	66.7	62.3	70.8	31.1	27.0	35.5
Gippsland	70.4	67.9	72.7	27.1	24.8	29.5
Grampians	63.3	60.4	66.0	33.7	31.0	36.6
Hume	69.8	67.2	72.3	27.5	25.0	30.0
Loddon Mallee	66.8	63.2	70.2	30.4	27.0	33.9
<b>Rural females</b>	68.4	67.0	69.8	29.0	27.6	30.4
<b>Total</b>	<b>70.8</b>	<b>69.9</b>	<b>71.8</b>	<b>26.6</b>	<b>25.7</b>	<b>27.5</b>

a. Female survey participants were able to select 'not applicable' as a response to this question. They have been excluded from the denominator when calculating estimates.

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.

Data were age-standardised to the 2011 Victorian population.

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

Table 3.33 shows the proportion of women who had had a Pap test in the previous two years, by LGA. There were significantly higher proportions of women who had had a Pap test in the previous two years who lived in the LGAs of Bayside (C), Glen Eira (C), Hobsons Bay (C), Melbourne (C), Mount Alexander (S), Stonnington (C) and Yarra (C) compared with all Victorian women. By contrast there were significantly lower proportions of women who had had a Pap test in the previous two years who lived in Central Goldfields (S), Corangamite (S), Hindmarsh (S), Moorabool (S), South Gippsland (S), Warrnambool (C) and Wodonga (RC) compared with all Victorian women.

Table 3.33: Had a Pap smear in the past two years,<sup>a</sup> by LGA, Victoria, 2011–12

LGA	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
Alpine (S)	68.5	52.2	81.2	29.9*	17.4	46.4
Ararat (RC)	68.7	63.0	73.9	27.8	22.8	33.3
Ballarat (C)	68.3	62.8	73.3	28.7	23.8	34.1
Banyule (C)	75.6	70.9	79.7	23.0	19.0	27.7
Bass Coast (S)	70.9	62.5	78.0	27.7	20.6	36.1
Baw Baw (S)	72.1	67.3	76.5	24.9	20.6	29.6
Bayside (C)	<b>77.5</b>	73.0	81.4	<b>21.0</b>	17.1	25.5
Benalla (RC)	74.3	69.3	78.8	22.6	18.3	27.7
Boroondara (C)	75.0	69.4	80.0	23.2	18.3	28.8
Brimbank (C)	65.3	56.5	73.2	33.1	25.3	42.0
Buloke (S)	66.5	57.3	74.7	30.2	22.3	39.5
Campaspe (S)	64.3	55.0	72.6	33.7	25.5	43.1
Cardinia (S)	68.2	60.9	74.6	28.2	21.9	35.4
Casey (C)	68.4	62.5	73.8	28.9	23.7	34.8
Central Goldfields (S)	<b>62.5</b>	56.9	67.8	33.0	27.8	38.6
Colac-Otway (S)	69.5	63.1	75.3	29.0	23.3	35.5
Corangamite (S)	<b>62.4</b>	55.3	69.0	<b>35.3</b>	28.7	42.4
Darebin (C)	68.2	59.9	75.5	26.6	19.7	34.9
East Gippsland (S)	74.4	69.0	79.2	23.6	19.0	29.0
Frankston (C)	64.3	56.2	71.6	32.2	25.0	40.3
Gannawarra (S)	68.7	62.7	74.2	27.3	22.2	33.2
Glen Eira (C)	<b>80.0</b>	76.1	83.4	<b>18.3</b>	15.1	22.0
Glenelg (S)	72.7	67.8	77.2	25.4	21.1	30.4
Golden Plains (S)	68.6	63.5	73.3	28.3	23.6	33.5
Greater Bendigo (C)	69.8	62.4	76.2	26.9	20.5	34.4
Greater Dandenong (C)	65.4	57.0	72.9	33.0	25.5	41.4
Greater Geelong (C)	69.3	63.9	74.1	28.8	24.0	34.1
Greater Shepparton (C)	75.5	70.3	80.0	22.3	17.8	27.5
Hepburn (S)	69.1	64.1	73.6	28.3	23.8	33.2
Hindmarsh (S)	<b>47.2</b>	35.4	59.2	<b>48.6</b>	36.8	60.6
Hobsons Bay (C)	<b>75.7</b>	71.6	79.3	23.4	19.8	27.5
Horsham (RC)	68.9	60.9	76.0	27.7	20.8	35.9
Hume (C)	63.8	56.8	70.2	32.9	26.1	40.4
Indigo (S)	68.5	59.4	76.4	30.6	22.8	39.7
Kingston (C)	64.5	55.4	72.7	34.0	25.9	43.1
Knox (C)	63.7	55.5	71.2	32.2	24.9	40.6
Latrobe (C)	70.2	64.3	75.6	27.8	22.5	33.8
Loddon (S)	64.1	56.0	71.5	31.4	24.2	39.6
Macedon Ranges (S)	66.0	54.7	75.7	30.1	20.7	41.7
Manningham (C)	75.3	69.7	80.2	<b>20.5</b>	16.3	25.4
Mansfield (S)	74.5	67.8	80.2	23.9	18.2	30.6
Maribyrnong (C)	75.3	69.8	80.1	22.4	17.7	27.8

Table 3.33: Had a Pap smear in the past two years,<sup>a</sup> by LGA, Victoria, 2011–12 (continued)

LGA	%	Yes 95% CI		%	No 95% CI	
		LL	UL		LL	UL
Maroondah (C)	71.4	65.8	76.3	26.9	22.0	32.5
Melbourne (C)	77.7	72.3	82.3	21.0	16.4	26.5
Melton (S)	72.7	66.9	77.7	24.2	19.4	29.7
Mildura (RC)	66.4	59.0	73.0	32.2	25.6	39.6
Mitchell (S)	68.5	61.9	74.3	29.5	23.8	36.0
Moira (S)	65.4	56.6	73.3	32.6	24.8	41.4
Monash (C)	72.1	62.2	80.2	26.5	18.5	36.4
Moonee Valley (C)	73.7	68.4	78.4	23.0	18.2	28.7
Moorabool (S)	57.7	48.2	66.7	40.2	31.3	49.8
Moreland (C)	74.6	69.7	78.9	22.2	18.0	27.0
Mornington Peninsula (S)	74.3	68.8	79.1	22.8	18.1	28.3
Mount Alexander (S)	77.8	73.3	81.7	20.4	16.6	24.9
Moyne (S)	72.7	68.4	76.6	22.8	19.2	27.0
Murrindindi (S)	73.6	68.1	78.5	23.9	19.2	29.4
Nillumbik (S)	77.5	69.2	84.0	21.4	14.9	29.8
Northern Grampians (S)	71.0	66.0	75.5	25.3	21.0	30.3
Port Phillip (C)	73.8	67.0	79.6	23.4	17.8	30.0
Pyrenees (S)	62.1	52.5	70.9	33.2	24.7	43.0
Queenscliffe (B)	67.1	53.4	78.3	31.9	20.7	45.7
South Gippsland (S)	60.6	51.5	69.0	36.9	28.6	45.9
Southern Grampians (S)	66.0	56.7	74.1	29.8	21.9	39.2
Stonnington (C)	79.9	75.9	83.4	16.4	13.1	20.3
Strathbogie (S)	67.7	58.7	75.6	24.3	20.6	28.5
Surf Coast (S)	69.8	64.4	74.7	29.3	24.3	34.8
Swan Hill (RC)	61.8	51.9	70.8	34.9	26.2	44.7
Towong (S)	69.0	62.1	75.1	29.1	23.0	36.0
Wangaratta (RC)	76.6	71.2	81.3	20.9	16.5	26.1
Warrnambool (C)	59.7	49.2	69.3	38.0	28.5	48.6
Wellington (S)	69.3	64.0	74.2	26.3	21.6	31.7
West Wimmera (S)	65.5	58.0	72.3	32.8	26.0	40.3
Whitehorse (C)	71.2	65.7	76.1	25.9	21.1	31.4
Whittlesea (C)	69.0	61.6	75.6	28.0	21.6	35.4
Wodonga (RC)	60.3	50.8	69.0	34.3	25.8	43.9
Wyndham (C)	70.3	64.6	75.5	27.1	21.9	32.9
Yarra (C)	78.9	74.3	82.8	20.1	16.2	24.6
Yarra Ranges (S)	72.5	65.6	78.5	25.8	19.9	32.8
Yarriambiack (S)	57.6	43.6	70.5	39.8	27.1	54.1
<b>Victoria</b>	<b>70.6</b>	<b>69.6</b>	<b>71.6</b>	<b>26.8</b>	<b>25.8</b>	<b>27.9</b>

a Female survey participants were able to select 'not applicable' as a response to this question. They have been excluded from the denominator when calculating estimates.

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.

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