

Population health profile of the Goulburn Valley

Division of General Practice: supplement

Population Profile Series: No. 62a

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Interpretation of differences between data in this profile and similar data from other sources needs to be undertaken with care, as such differences may be due to the use of different methodology to produce the data.

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Population health profile of the Goulburn Valley Division of General Practice: supplement

This profile is a supplement to the *Population health profile of the Goulburn Valley Division of General Practice*, dated November 2005, available from www.publichealth.gov.au. This supplement includes an update of the population of the Goulburn Valley Division of General Practice, as well as additional indicators and aspects of the Division's socioeconomic status, use of GP services and health. The contents are:

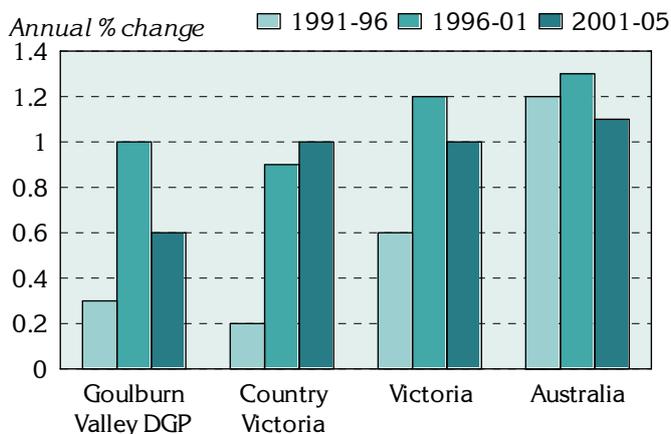
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances – patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive conditions
- Avoidable mortality

For further information on the way Division totals in this report have been estimated, please refer to the 'Notes on the data' section of the *Population health profile*, November 2005 (www.publichealth.gov.au).

Population

The Goulburn Valley Division had an Estimated Resident Population of 104,341 at 30 June 2005.

Figure 1: Annual population change, Goulburn Valley DGP, country Victoria, Victoria and Australia, 1991 to 1996, 1996 to 2001 and 2001 to 2005



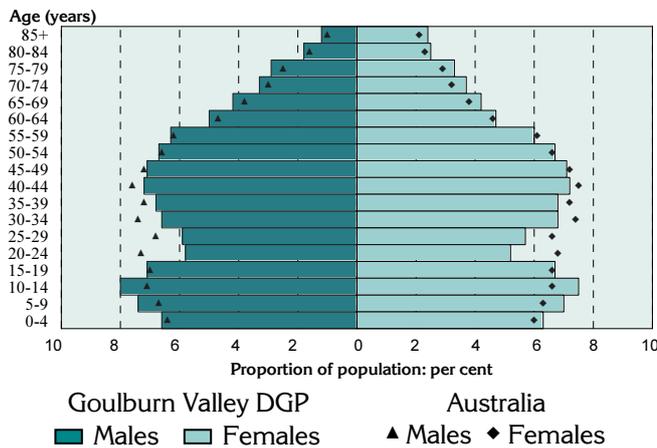
Over the five years from 1991 to 1996, the Division's population increased by an average of 0.3% each year, higher than for country Victoria (0.2%), and lower than for Victoria (0.6%) and Australia (1.2%). From 1996 to 2001, the annual percentage increase in the Division (1.0%) was higher than in country Victoria (0.9%), but lower than in Victoria (1.2%). The growth rate from 2001 to 2005 (0.6%) was again below the annual increases for the comparators.

Table 1: Population by age, Goulburn Valley DGP and Australia, 2005

Age group (years)	Goulburn Valley DGP		Australia	
	No.	%	No.	%
0-14	22,322	21.4	3,978,221	19.6
15-24	12,978	12.4	2,819,834	13.9
25-44	27,717	26.6	5,878,107	28.9
45-64	25,943	24.9	4,984,446	24.5
65-74	8,013	7.7	1,398,831	6.9
75-84	5,463	5.2	954,143	4.7
85+	1,906	1.8	315,027	1.5
Total	104,341	100.0	20,328,609	100.0

As shown in the accompanying table and the age-sex pyramid below (Figure 2), the Goulburn Valley DGP had more children aged 0 to 14 years (21.4%), but fewer people in the 15 to 44 year age groups (39.0%) than Australia as a whole (with 19.6% and 42.8%) (Table 1). Conversely, the proportions of the Division's population aged 65 years and over were above those for Australia.

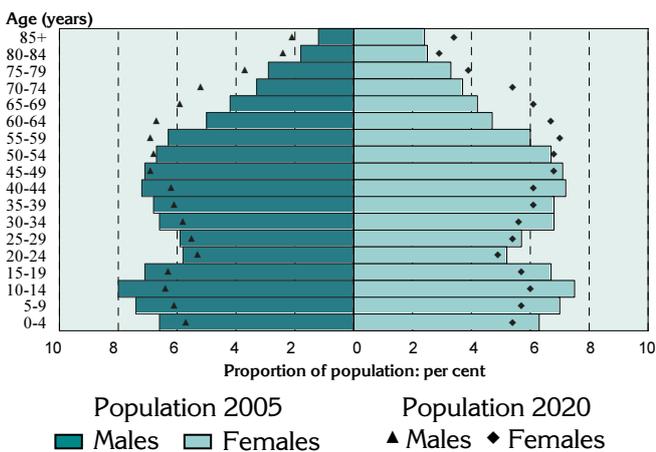
Figure 2: Population in Goulburn Valley DGP and Australia, by age and sex, 2005



The most notable differences in the age distribution of the Division's population (when compared to Australia overall) are:

- at younger ages – relatively more children and young people aged 0 to 14 years;
- from 20 to 44 years – relatively fewer males and females (perhaps moving away to continue education, or to seek employment opportunities); and
- at older ages – slightly more males and females aged 60 years and over.

Figure 3: Population projections for Goulburn Valley DGP, by age and sex, 2005 and 2020



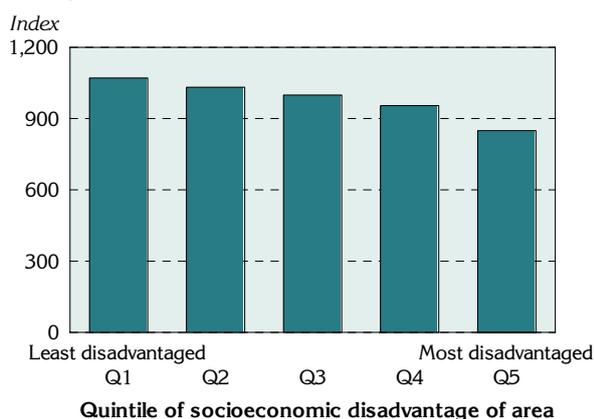
The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- at younger ages – relatively fewer children and young people aged 0 to 19 years;
- from 20 to 49 years – relatively fewer males and females; and
- from 55 years onwards – relatively more males and females.

Additional socio-demographic indicators

Please refer to the earlier *Population health profile of the Goulburn Valley Division of General Practice*, dated November 2005, available from www.publichealth.gov.au, for other socio-demographic indicators.

Figure 4: Index of Relative Socio-Economic Disadvantage, Goulburn Valley DGP, 2001



One of four socioeconomic indexes for areas produced at the 2001 ABS Census is the Index of Relative Socio-Economic Disadvantage.

The Goulburn Valley DGP has an index score of 982, below the score for Australia of 1000: this score varies across the Division, from a low of 849 in the most disadvantaged areas to 1070 in the least disadvantaged areas.

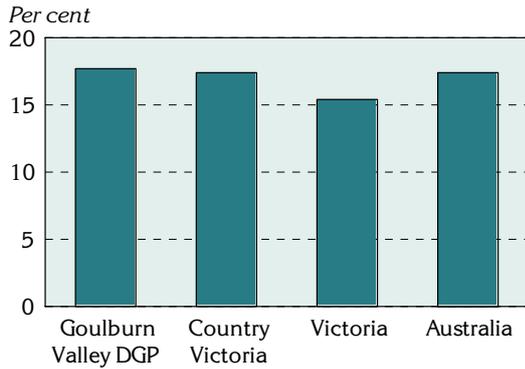
Note: each 'quintile' comprises approximately 20% of the population of the Division.

A new indicator, produced for the first time at the 2001 ABS Census, shows the number of jobless families with children under 15 years of age. There was a similar level of jobless families in the Goulburn Valley DGP (17.7%), compared to country Victoria as a whole (17.4%) (Figure 5, Table 2).

With the introduction of the 30% rebate for private health insurance premiums, there was a once-off registration process, providing information of the postcode and residence of those who had such insurance (these data are not available at this area level for later dates). In 2001, the Division had a similar level of private health insurance (42.7%), compared to country Victoria (43.0%) (Figure 5, Table 2).

Figure 5: Socio-demographic indicators, Goulburn Valley DGP, country Victoria, Victoria and Australia, 2001

Jobless families with children under 15 years old



Private health insurance, 30 June

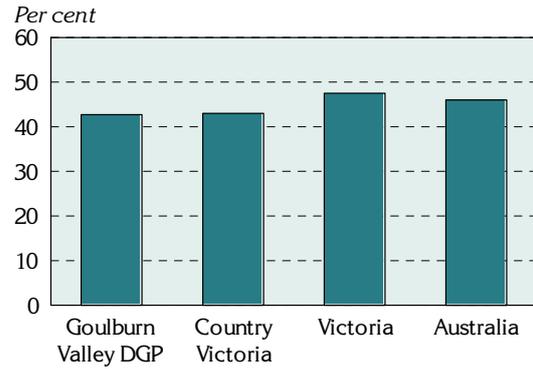
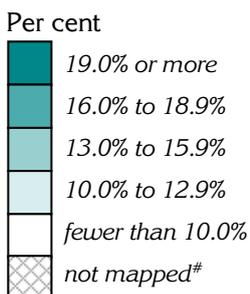
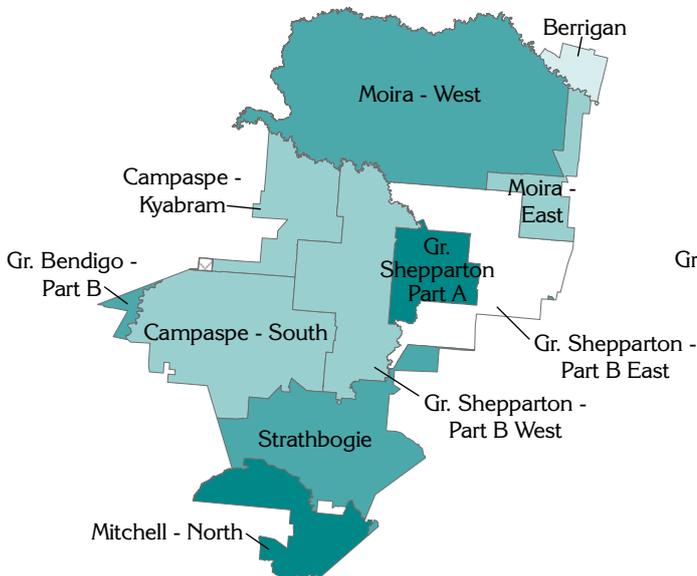


Table 2: Socio-demographic indicators, Goulburn Valley DGP, country Victoria, Victoria and Australia, 2001

Indicator	Goulburn Valley DGP		Country Victoria		Victoria		Australia	
	No.	%	No.	%	No.	%	No.	%
Jobless families with children under 15 years old	1,972	17.7	24,724	17.4	77,142	15.4	357,563	17.4
Private health insurance (30 June)	41,061	42.7	543,292	43.0	2,196,890	47.5	8,671,106	46.0

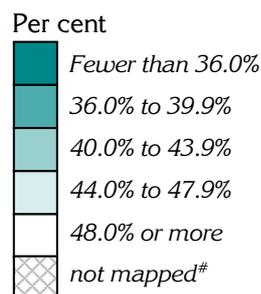
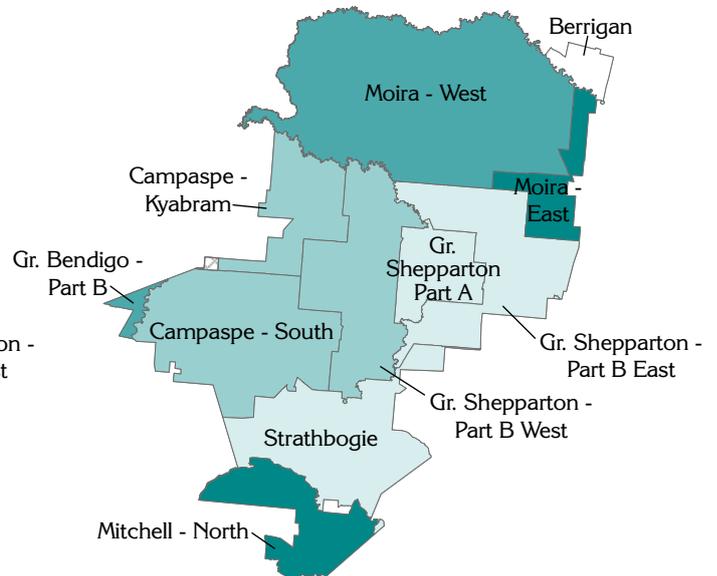
Details of the distribution of jobless families and of the population covered by private health insurance are shown by Statistical Local Area (SLA) in Maps 1 and 2, respectively.

Map 1: Jobless families with children under 15 years of age by SLA, Goulburn Valley DGP, 2001



[#] data were not mapped: see 'Mapping' note under Methods

Map 2: People covered by private health insurance by SLA, Goulburn Valley DGP, 30 June 2001



[#] data were not mapped: see 'Mapping' note under Methods

GP services to residents of the Goulburn Valley DGP

The following tables include information, purchased from Medicare Australia, of the movement of patients and GPs between Divisions. Note that the data only include unreferred attendances recorded under Medicare: unreferred attendances not included are those for which the cost is met by the Department of Veterans' Affairs or a compensation scheme; or are provided by salaried medical officers in hospitals, community health services or Aboriginal Medical Services, and which are not billed to Medicare. At any attendance, one or more services may have been provided.

The majority (88.6%) of all unreferred attendances to residents of Goulburn Valley DGP were provided in the Division (ie. by a GP with a provider number in the Division): this represented 352,196 GP unreferred attendances (Table 3). A further 1.8% of unreferred attendances to residents were provided by GPs with a provider number in Murray Plains DGP, with 1.3% provided by GPs in North East Victorian DGP.

Table 3: Patient flow – People living¹ in Goulburn Valley DGP by Division where attendance occurred², 2003/04

Division		Unreferred attendances	
Number	Name	No.	% ³
327	Goulburn Valley DGP	352,196	88.6
331	Murray-Plains DGP	7,064	1.8
319	North East Victorian DGP	5,068	1.3
301	Melbourne DGP	3,493	0.9
318	Central Highlands DGP	2,740	0.7
308	Northern DGP – Melbourne	2,140	0.5
307	North West Melbourne DGP	1,801	0.5
Other	..	23,074	5.8
Total	..	397,074	100.0

¹ Based on address in Medicare records

² Division of GP based on provider number

³ Proportion of all unreferred attendances of patients with an address in Division 327 by Division in which attendance occurred

The majority (94.0%) of unreferred attendances provided by GPs with a provider number in Goulburn Valley DGP were also to people living in the Division (ie. their Medicare address was in the Division) (Table 4). A further 0.9% of unreferred attendances provided by GPs in the Division were to people living in Murrumbidgee DGP, with 0.8% to residents of Murray Plains DGP.

Table 4: GP catchment – Unreferred attendances provided by GPs¹ in Goulburn Valley DGP by Division of patient address², 2003/04

Division		Unreferred attendances	
Number	Name	No.	% ³
327	Goulburn Valley DGP	352,196	94.0
232	Murrumbidgee DGP	3,465	0.9
331	Murray Plains DGP	3,001	0.8
318	Central Highlands DGP	2,798	0.7
319	North East Victorian DGP	2,738	0.7
326	Bendigo and District DGP	1,266	0.3
301	Melbourne DGP	1,019	0.3
Other	..	8,360	2.2
Total	..	374,843	100.0

¹ Division of GP based on provider number

² Based on address in Medicare records

³ Proportion of all unreferred attendances to GPs with a provider number in Division 327 by Division of patient address

Additional prevalence estimates: chronic diseases and risk factors combined

Please refer to the earlier *Population health profile of the Goulburn Valley Division of General Practice*, dated November 2005, available from www.publichealth.gov.au, for the separate prevalence estimates of chronic disease; measures of self-reported health and risk factors. The process by which the estimates have been made, and details of their limitations, are also described in the 'Notes on the data' section of this earlier profile.

In this section two estimates, which combine the prevalence of selected chronic diseases with a risk factor, are shown for the Division. The measures are of people who *had asthma and were smokers*, and people who *had type 2 diabetes and were overweight or obese*: note that the estimates have been predicted from self-reported data, and are not based on clinical records or physical measures.

It is estimated that there were relatively more people in Goulburn Valley DGP who had asthma and were smokers, compared to Australia as a whole (Figure 6, Table 5): that is, the prevalence rates per 1,000 population were higher. However, the rate is consistent with that in country Victoria. In contrast, there were fewer people in Goulburn Valley DGP who had type 2 diabetes and were overweight/ obese, compared to country Victoria (although only marginally so) and Australia.

Figure 6: Estimates of selected chronic diseases and risk factors, Goulburn Valley DGP, country Victoria and Australia, 2001

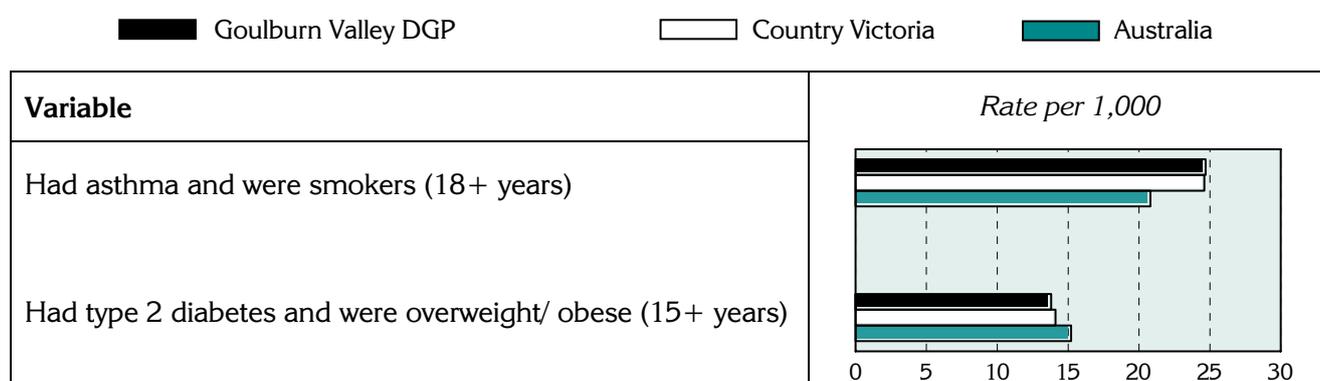


Table 5: Estimates of selected chronic diseases and risk factors, Goulburn Valley DGP, country Victoria, Victoria and Australia, 2001

Variable	Goulburn Valley DGP		Country Victoria		Victoria		Australia	
	No. ¹	Rate ²	No. ¹	Rate ²	No. ¹	Rate ²	No. ¹	Rate ¹
Had asthma & smoked ³	2,250	24.7	29,424	24.6	95,664	19.9	397,734	20.8
Had type 2 diabetes & were overweight/ obese ⁴	1,362	13.8	19,136	14.1	69,192	15.1	283,176	15.2

¹ No. is a weighted estimate of the number of people in Goulburn Valley DGP reporting these chronic conditions/ with these risk factors and is derived from synthetic predictions from the 2001 NHS

² Rate is the indirectly age-standardised rate per 1,000 population

³ Population aged 18 years and over

⁴ Population aged 15 years and over

Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive conditions

The rationale underlying the concept of avoidable hospitalisations is that timely and effective care of certain conditions, delivered in a primary care setting, can reduce the risk of hospitalisation. Admissions to hospital for these ambulatory care sensitive (ACS) conditions can be avoided in three ways. Firstly, for conditions that are usually preventable through immunisation or nutritional intervention, disease can be prevented almost entirely. Secondly, diseases or conditions that can lead to rapid onset problems, such as dehydration and gastroenteritis, can be treated. Thirdly, chronic conditions, such as congestive heart failure, can be managed to prevent or reduce the severity of acute flare-ups to avoid hospitalisation.

This measure does not include other aspects of avoidable morbidity, namely potentially preventable hospitalisations (hospitalisations resulting from diseases preventable through population based health promotion strategies, e.g. alcohol-related conditions; and most cases of lung cancer) and hospitalisations avoidable through injury prevention (e.g. road traffic accidents).

For information on the ambulatory care sensitive conditions and ICD codes included in the analysis in this section, please refer to the *Atlas of Avoidable Hospitalisations in Australia: ambulatory care-sensitive conditions*, available from www.publichealth.gov.au.

In 2001 to 2002, the 3,820 admissions from ambulatory care sensitive (ACS) conditions accounted for 9.9% of all admissions in the Goulburn Valley DGP (Table 6, Figure 7), notably above the levels in Victoria (8.8%) and Australia (8.7%).

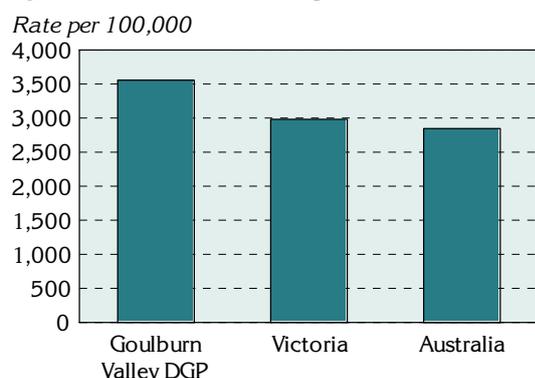
Table 6: Avoidable¹ and unavoidable hospitalisations, Goulburn Valley DGP, Victoria, and Australia, 2001/02

Category	Goulburn Valley DGP			Victoria			Australia		
	No.	Rate ²	%	No.	Rate ²	%	No.	Rate ²	%
Avoidable ¹	3,820	3,555.2	9.9	145,135	2,983.2	8.8	552,786	2,847.5	8.7
Unavoidable	34,674	33,406.3	90.1	1,510,437	31,088.3	91.2	5,818,199	29,970.7	91.3
Total	38,494	36,973.8	100.0	1,655,572	34,071.5	100.0	6,370,985	32,818.2	100.0

¹ Admissions resulting from ACS conditions

² Rate is the indirectly age-standardised rate per 100,000 population

Figure 7: Avoidable hospitalisations¹, Goulburn Valley DGP, Victoria and Australia, 2001/02



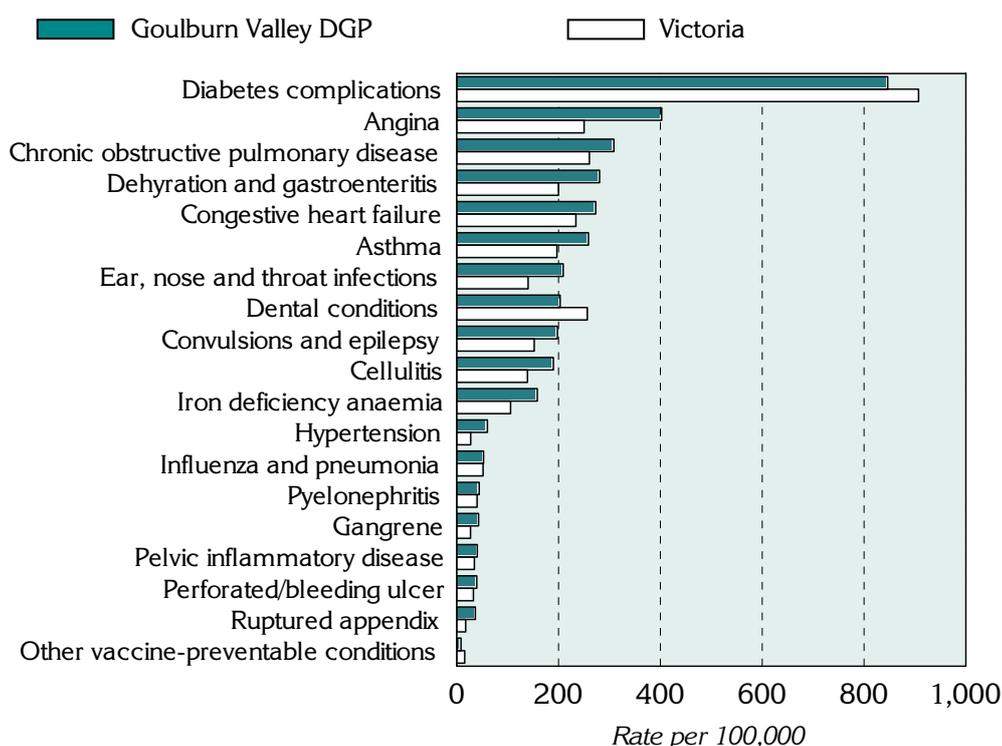
The rate of avoidable hospitalisations in Goulburn Valley DGP is markedly higher, a rate of 3,555.2 admissions per 100,000 population, compared to Victoria (a rate of 2,983.2) and Australia (2,847.5).

¹ Admissions resulting from ACS conditions

Diabetes complications, angina and chronic obstructive pulmonary disease were the three conditions with the highest rates of avoidable hospitalisations in the Goulburn Valley DGP (Figure 8, Table 7).

Table 7 shows the number, rate and proportion of avoidable hospitalisations, for the individual ACS conditions, as well as the vaccine-preventable; acute; and chronic sub-categories. The majority of avoidable hospitalisations are attributable to chronic health conditions. The predominance of hospitalisations for chronic conditions in this period can be primarily attributed to the large number of admissions for diabetes complications. Dehydration and gastroenteritis, and ear, nose and throat infections have the highest rates of avoidable hospitalisations for the acute conditions.

Figure 8: Avoidable hospitalisations¹ by condition, Goulburn Valley DGP and Victoria, 2001/02



¹ Admissions resulting from ACS conditions: excludes nutritional deficiencies as less than ten admissions

Table 7: Avoidable hospitalisations¹ by condition, Goulburn Valley DGP, Victoria and Australia, 2001/02

Sub-category/ condition	Goulburn Valley DGP		Victoria		Australia	
	No.	Rate ²	No.	Rate ²	No.	Rate ²
Vaccine-preventable	66	61.5	3,293	68.0	16,573	85.4
Influenza and pneumonia	57	52.9	2,525	52.0	13,021	67.1
Other vaccine preventable	9	8.6	768	16.0	3,552	18.3
Chronic³	2,528	2,308.9	97,133	1,982.6	352,545	1,816
Diabetes complications	923	846.3	44,409	906.9	141,345	728.1
Iron deficiency anaemia	169	158.5	5,196	105.9	16,451	84.7
Hypertension	65	60.4	1,362	27.7	6,354	32.7
Congestive heart failure	308	273.3	11,655	234.1	42,447	218.6
Angina	443	402.6	12,285	250.4	49,963	257.4
Chronic obstructive pulmonary disease	345	308.8	12,850	260.7	54,853	282.6
Asthma	275	259.0	9,376	196.9	41,009	211.3
Acute	1,340	1,285.7	50,153	1,041.7	200,913	1,035
Dehydration and gastroenteritis	288	280.6	9,761	200.0	37,766	194.5
Convulsions and epilepsy	205	197.8	7,297	152.4	31,137	160.4
Ear, nose and throat infections	224	209.3	6,653	140.5	32,075	165.2
Dental conditions	213	203.1	12,235	256.7	43,667	224.9
Perforated/bleeding ulcer	44	39.8	1,618	32.9	5,795	29.9
Ruptured appendix	37	36.8	855	17.9	3,866	19.9
Pyelonephritis	44	44.5	1,948	40.2	7,386	38.0
Pelvic inflammatory disease	38	40.7	1,693	34.8	6,547	33.7
Cellulitis	200	189.9	6,751	139.0	28,204	145.3
Gangrene	47	43.2	1,342	27.3	4,470	23.0
Total avoidable hospitalisations⁴	3,820	3,555.2	145,135	2,983.2	552,786	2,847.5

¹ Admissions resulting from ACS conditions

² Rate is the indirectly age-standardised rate per 100,000 population

³ Excludes nutritional deficiencies as less than ten admissions

⁴ Sub-category and condition numbers and rates do not add to the reported total avoidable admissions: five conditions (influenza & pneumonia, other vaccine preventable, diabetes complications, ruptured appendix and gangrene) are counted in 'any diagnosis', so may be included in more than one condition group

Avoidable mortality

Avoidable and amenable mortality comprises those causes of death that are potentially avoidable at the present time, given available knowledge about social and economic policy impacts, health behaviours, and health care (the latter relating to the subset of amenable causes).

For information on the avoidable and amenable mortality conditions and ICD codes included in the analysis in this section, please refer to the *Australian and New Zealand Atlas of Avoidable Mortality*, available from www.publichealth.gov.au.

Over two-thirds (70.6%) of all deaths in Goulburn Valley DGP at ages 0 to 74 years over the period 1997 to 2001 are considered to be avoidable, consistent with the proportion for country Victoria (70.8%) (Table 8). Deaths amenable to health care (amenable mortality, a subset of avoidable mortality) accounted for 27.7% of all deaths at ages 0 to 74 years in Goulburn Valley DGP, slightly lower than the 28.7% in country Victoria.

Table 8: Avoidable and unavoidable mortality (0 to 74 years) by area, Goulburn Valley DGP, country Victoria, Victoria and Australia, 1997 to 2001

Mortality category	Goulburn Valley DGP		Country Victoria		Victoria		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable	1,054	212.1	14,812	221.0	45,466	201.3	189,845	211.8
% of total	70.6	..	70.8	..	70.9	..	71.5	..
(Amenable)	(414)	(82.3)	(6,001)	(88.2)	(18,406)	(81.4)	(76,249)	(85.1)
(% of total)	(27.7)	(..)	(28.7)	(..)	(28.7)	(..)	(28.7)	(..)
Unavoidable	438	87.4	6,100	90.0	18,617	82.4	75,582	84.3
% of total	29.4	..	29.2	..	29.1	..	28.5	..
Total mortality	1,492	299.5	20,912	311.0	64,083	283.7	265,427	296.1
%	100.0	..	100.0	..	100.0	..	100.0	..

¹ Rate is the indirectly age-standardised rate per 100,000 population

Rates of avoidable mortality were higher for males than for females in each of the comparator areas. Goulburn Valley DGP's rate of avoidable mortality for males was 275.7 deaths per 100,000 males, higher than the rate of 147.6 for females. The rate of amenable mortality for males in the Division was also higher, 91.6, compared to 72.9 for females, a rate ratio of 1.26 (Figure 9, Table 9).

Figure 9: Avoidable and amenable mortality by sex (0 to 74 years), Goulburn Valley DGP, country Victoria, Victoria and Australia, 1997 to 2001

Note: the different scales

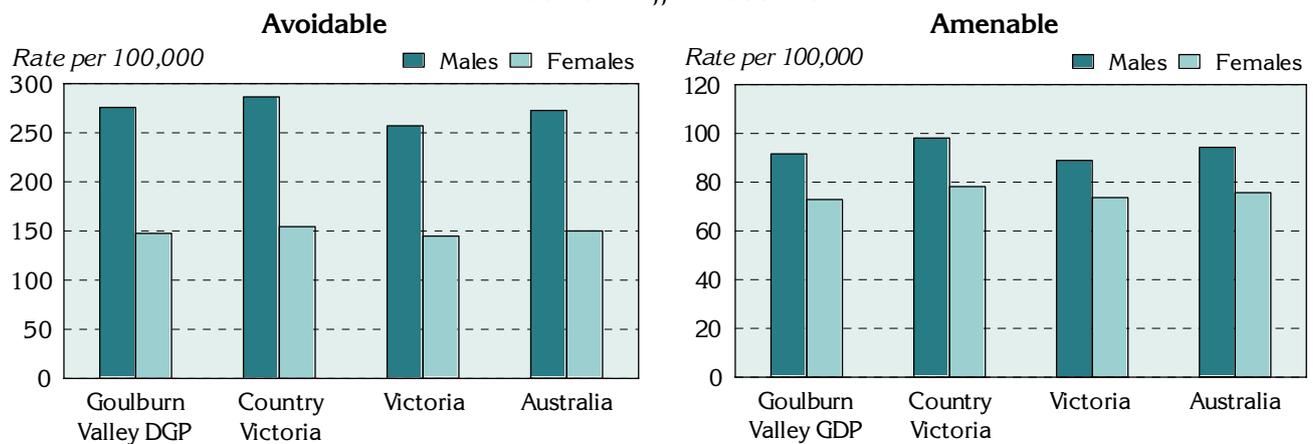


Table 9: Avoidable and amenable mortality (0 to 74 years) by sex, Goulburn Valley DGP, country Victoria, Victoria and Australia, 1997 to 2001

Mortality category and sex	Goulburn Valley DGP		Country Victoria		Victoria		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable								
Males	695	275.7	9,664	286.5	29,042	257.0	123,026	272.6
Females	359	147.6	5,148	154.5	16,424	144.8	66,819	150.1
Total	1,054	212.1	14,812	221.0	45,466	201.3	189,845	211.8
Rate ratio-M:F²	..	1.87**	..	1.85**	..	1.77**	..	1.82**
Amenable								
Males	236	91.6	3,386	98.1	10,052	88.9	42,568	94.3
Females	178	72.9	2,615	78.2	8,354	73.7	33,681	75.7
Total	414	82.3	6,001	88.2	18,406	81.4	76,249	85.1
Rate ratio-M:F²	..	1.26*	..	1.25**	..	1.21**	..	1.25**

¹ Rate is the indirectly age-standardised rate per 100,000 population

² Rate ratio (M:F) is the ratio of male to female rates; rate ratios differing significantly from 1.0 are shown with * p <0.05; ** p <0.01

Another way of measuring premature mortality is to calculate the number of years of life lost (YLL)¹, which takes into account the years a person could have expected to live at each age of death based on the average life expectancy at that age.

The numbers of YLL for Goulburn Valley DGP, country Victoria, Victoria and Australia over the period of analysis are shown in Table 10 by mortality category. However, given the substantial variations in the populations of these areas, a comparison of the proportion of YLL for each area is also shown.

YLL from avoidable mortality accounted for 71.5% of total YLL (0 to 74 years) for Goulburn Valley DGP, consistent with the proportion for country Victoria. The proportion of YLL from amenable mortality for Goulburn Valley DGP (28.5%) was marginally higher than that for country Victoria (28.1%).

Table 10: Years of life lost from avoidable mortality (0 to 74 years), Goulburn Valley DGP, country Victoria, Victoria and Australia, 1997 to 2001

Mortality category	Goulburn Valley DGP		Country Victoria		Victoria		Australia	
	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Avoidable	18,582	71.5	253,666	71.2	790,054	71.5	3,327,375	71.9
(Amenable)	(7,406)	(28.5)	(100,131)	(28.1)	(310,758)	(28.1)	(1,298,430)	(28.0)
Unavoidable	7,416	28.5	102,576	28.8	315,555	28.5	1,303,289	28.1
Total	25,998	100.0	356,242	100.0	1,105,610	100.0	4,630,664	100.0

¹ Years of life lost were calculated using the remaining life expectancy method (this provides an estimate of the average time a person would have lived had he or she not died prematurely). The reference life table was the Coale and Demeny Model Life Table West level 26 female (for both males and females), with the YLL discounted to net present value at a rate of 3 per cent per year.

In each of the areas in Table 11, the majority of avoidable mortality at ages 0 to 74 years occurred in the 65 to 74 year age group (Table 11), with 1,294.7 deaths per 100,000 population in the Goulburn Valley Division. The 45 to 64 year age group accounted for the next highest rate of avoidable death in all of the comparators, with a rate 302.6 in the Goulburn Valley Division.

Table 11: Avoidable and amenable mortality by age, Goulburn Valley DGP, country Victoria, Victoria and Australia, 1997 to 2001

Mortality category and age (years)	Goulburn Valley DGP		Country Victoria		Victoria		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable								
0-14	48	43.0	416	29.9	1,290	27.1	5,669	28.8
15-24	41	65.9	507	61.8	1,627	49.3	7,045	52.8
25-44	122	87.1	1,615	88.6	5,705	78.9	24,356	83.9
45-64	348	302.6	4,881	320.7	15,004	286.9	64,282	304.9
65-74	495	1,294.7	7,393	1396.1	21,840	1306.6	88,493	1,358.1
Total	1,054	212.1	14,812	221.0	45,466	201.3	189,845	211.8
Amenable								
0-24	49	26.8	352	15.5	1,189	14.9	5,083	15.4
25-44	39	27.7	419	22.3	1,382	19.1	5,946	20.5
45-64	129	112.4	2,091	137.4	6,489	123.8	27,464	130.3
65-74	197	516.1	3,139	593.1	9,348	558.6	37,756	579.4
Total	414	82.3	6,001	88.2	18,406	81.4	76,249	85.1

¹ Rate is the indirectly age-standardised rate per 100,000 population

Table 12 shows the number and age-standardised death rate by selected major condition group and selected causes included in the avoidable mortality classification.

The highest rates of avoidable mortality for the selected major condition groups in the Goulburn Valley DGP were for cancer, with a rate of 69.1 deaths per 100,000 population, and cardiovascular diseases, 61.7 deaths per 100,000 population (Table 12, Figure 10). For the selected causes within the condition groups, the two major causes of avoidable mortality were ischaemic heart disease and lung cancer, with rates of 43.2 per 100,000 population and 26.5 per 100,000, respectively.

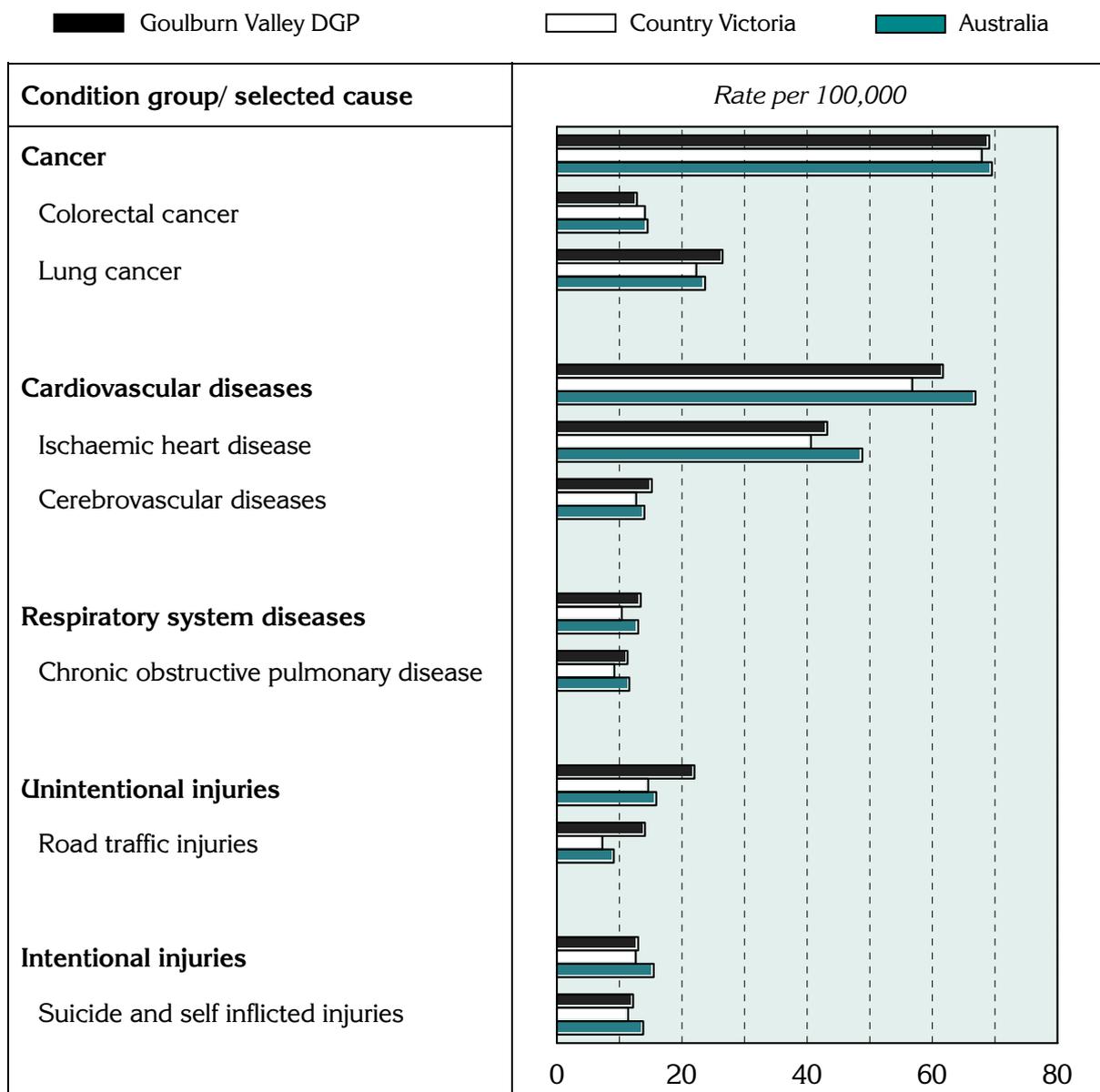
Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Goulburn Valley DGP, country Victoria, Victoria and Australia, 1997 to 2001

Condition group/ selected cause	Goulburn Valley DGP		Country Victoria		Victoria		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Cancer	348	69.1	5,074	74.2	15,813	69.8	62,338	69.5
Colorectal cancer	65	12.8	1,133	16.5	3,351	14.8	13,008	14.5
Lung cancer	135	26.5	1,739	25.0	5,244	23.1	21,208	23.7
Cardiovascular diseases	315	61.7	4,666	67.0	13,612	60.0	59,945	66.9
Ischaemic heart disease	221	43.2	3,432	49.3	9,809	43.3	43,712	48.8
Cerebrovascular diseases	78	15.2	934	13.4	2,947	12.9	12,558	14.0
Respiratory system diseases	69	13.4	977	13.9	2,621	11.5	11,612	13.0
Chronic obstructive pulmonary disease	59	11.3	888	12.5	2,339	10.2	10,395	11.6
Unintentional injuries	100	22.0	1,142	19.3	3,536	15.9	14,224	15.9
Road traffic injuries	64	14.1	739	12.5	1,931	8.7	8,138	9.1
Intentional injuries	58	13.0	946	16.2	3,020	13.6	13,891	15.5
Suicide and self inflicted injuries	55	12.2	875	15.0	2,752	12.3	12,393	13.8

¹ Rate is the indirectly age-standardised rate per 100,000 population

Rates in the Division were above those in country Victoria (with the exception of the lower rate for colorectal cancer) and below, or consistent with, rates for Australia for the condition groups and selected causes shown: the exceptions were lung cancer, cerebrovascular diseases and unintentional injuries (both total and road traffic accidents) (Figure 10).

Figure 10: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Goulburn Valley DGP, country Victoria and Australia, 1997 to 2001



Notes on the data

Data sources and limitations

General

References to 'country Victoria' relate to Victoria excluding the Melbourne Statistical Division.

Data sources

Table 13 details the data sources for the material presented in this profile.

Table 13: Data sources

Section	Source
Population	
Figures 1 and 2; Table 1	Estimated Resident Population, ABS, 30 June for the periods shown
Figure 3	Estimated Resident Population, ABS, 30 June 2005; Population Projections, ABS, 30 June 2020 (unpublished) ¹
Additional socio-demographic indicators	
Figure 4	ABS SEIFA package, Census 2001
Table 2; Figure 5; Map 1	Jobless families, ABS, 2001 (unpublished)
Table 2; Figure 5; Map 2	Private health insurance, from Hansard
GP services – patient flow/ GP catchment	
Tables 3 and 4	Medicare Australia, 2003/04
Additional prevalence estimates: chronic diseases and risk factors combined	
Figure 6; Table 5	Estimated from 2001 National Health Survey (NHS), ABS (unpublished)
Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive conditions	
Tables 6 and 7; Figures 7 and 8	National Hospital Morbidity Database at Australian Institute of Health & Welfare, 2001/02; data produced in HealthWIZ by Prometheus Information (not available in public release dataset)
Avoidable mortality	
Tables 8, 9, 10, 11 and 12; Figures 9 and 10	ABS Deaths 1997-2001; data produced in HealthWIZ by Prometheus Information (not available in public release dataset)

¹ The projected population at June 2020 is based on the 2002 ERP. As such, it is somewhat dated, and does not take into account more recent demographic trends: it is however the only projection series available at the SLA level for the whole of Australia.

Methods

For background information on the additional prevalence estimates presented in this profile, please refer to the 'Notes on the data' section of the *Population health profile*, November 2005 (www.publichealth.gov.au).

Please also refer to the November 2005 profile for information on the data converters.

Mapping

In some Divisions the maps may include a very small part of an SLA which has not been allocated any population; or has a population of less than 100 or has less than 1% of the SLAs total population; or there were less than five cases (i.e. jobless families, people with health insurance): these areas are mapped with a pattern.

Statistical geography of the Goulburn Valley DGP

For information on the postcodes in the Division, please refer the Department of Health and Ageing website <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pcd-programs-divisions-divspc.htm>; also included in table format in the 'Notes on the data' section of the *Population health profile*, November 2005 (www.publichealth.gov.au).

Statistical Local Areas (SLAs) are defined by the Australian Bureau of Statistics to produce areas for the presentation and analysis of data. In this Division, some Local Government Areas (LGAs) have been split into SLAs. For example, the LGA of Greater Shepparton is comprised of three SLAs, Part A, Part B East and Part B West. All of these SLAs, and all or parts of the other SLAs listed in Table 14, comprise the Division.

Table 14: SLAs and population in Goulburn Valley DGP, 2005 on 2001 boundaries

SLA code	SLA name	Per cent of the SLA's population in the Division*	Estimate of the SLA's 2005 population in the Division
10650	Berrigan	19.3	1,599
21374	Campaspe - Kyabram	83.6	10,710
21376	Campaspe - South	90.2	3,423
22628	Greater Bendigo - Part B	7.1	820
22831	Greater Shepparton - Part A	100.0	47,218
22834	Greater Shepparton - Part B East	96.5	3,930
22835	Greater Shepparton - Part B West	100.0	9,233
24851	Mitchell - North	42.7	4,840
24901	Moira - East	8.7	803
24904	Moira - West	100.0	18,547
25622	Murrindindi - West	2.1	164
26430	Strathbogie	31.7	3,053

* Proportions are approximate and are known to be incorrect in some cases, due to errors in the concordance used to allocate CDs to form postal areas. In addition, in a small number of cases, part(s) of an SLA can be allocated to another Division, sometimes several hundred kilometres away. Although adjustments have not been made to the concordance to correct these errors, the affected SLAs are highlighted in the table (shown in bold italic typeface)

Acknowledgements

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Further developments and updates

When the re-aligned boundaries are released and DoHA have made known their geographic composition, PHIDU will examine the need to revise and re-publish these profiles (*Population health profile*, dated November 2005, and the *Population health profile: supplement*, dated March 2007).

PHIDU contact details

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