# Population health profile of the Mallee

# Division of General Practice: supplement

Population Profile Series: No. 67a

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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 Mallee Division of General Practice: supplement

This profile is a supplement to the *Population health profile of the Mallee Division of General Practice*, dated November 2005, available from <a href="www.publichealth.gov.au">www.publichealth.gov.au</a>. This supplement includes an update of the population of the Mallee 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:

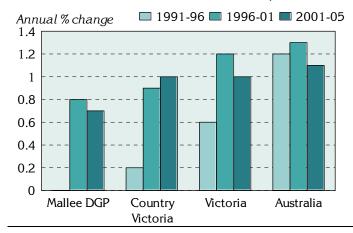
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive conditions
- 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 Mallee Division had an Estimated Resident Population of 88,289 at 30 June 2005.

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



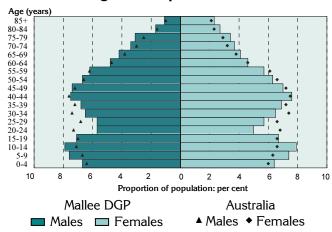
Over the five years from 1991 to 1996, the Division's population showed no growth, while there were increases in country Victoria (0.2%), Victoria (0.6%), and Australia as a whole (1.2%). From 1996 to 2001, the annual percentage increase in the Division (0.8%) was below that in country Victoria (0.9%), Victoria (1.2%) and Australia (1.3%). The growth rate of 0.7% per year from 2001 to 2005 was again below the annual increases for country Victoria and Victoria (1.0%) and Australia (1.1%).

Table 1: Population by age, Mallee DGP and Australia, 2005

Age group	Mallee	DGP	Australia
(years)	No.	%	No. %
0-14	19,373	21.9	3,978,221 19.6
15-24	10,784	12.2	2,819,834 13.9
25-44	23,480	26.6	5,878,107 28.9
45-64	21,486	24.3	4,984,446 24.5
65-74	6,827	7.7	1,398,831 6.9
75-84	4,842	5.5	954,143 4.7
85+	1,496	1.7	315,027 1.5
Total	88,289	100.0	20,328,609 100.0

As shown in the accompanying table and the age-sex pyramid below (Figure 2), the Mallee DGP had more children aged 0 to 14 years (21.9%), but fewer people aged 15 to 44 years (38.8%) compared to Australia as a whole (with 19.6% and 42.8%) (Table 1). The proportions of the Division's population aged 65 to 84 years were higher than those for Australia.

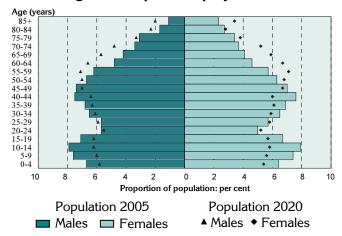
Figure 2: Population in Mallee DGP and Australia, by age and sex, 2005



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 aged 0 to 14 years (most pronounced at ages 5 to 14 years);
- from 20 to 39 years relatively fewer people (perhaps moving away to continue education, or to seek employment opportunities); and
- at older ages slightly more males and females aged 65 years and over.

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



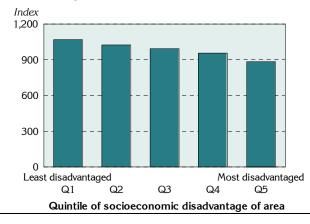
The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- at younger ages relatively fewer children and young people aged 0 to 19 years;
- from 30 to 49 years relatively fewer males and females; and
- from 50 years onwards relatively more males and females.

# Additional socio-demographic indicators

Please refer to the earlier *Population health profile of the Mallee 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, Mallee DGP, 2001



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

The Mallee DGP has an index score of 984, below the score for Australia of 1000: this score varies widely across the Division, from a low of 883 in the most disadvantaged areas to 1069 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. The proportion of jobless families in the Mallee DGP (17.2%) was consistent with the level in 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 slightly lower proportion of the population with private health insurance (41.8%), compared to country Victoria (43.0%) (Figure 5, Table 2).

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

# Jobless families with children under 15 years old

# Per cent 20 15 10 Mallee DGP Country Victoria Australia Victoria

# Private health insurance, 30 June

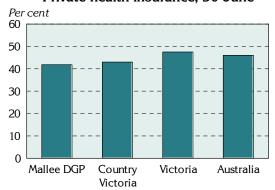


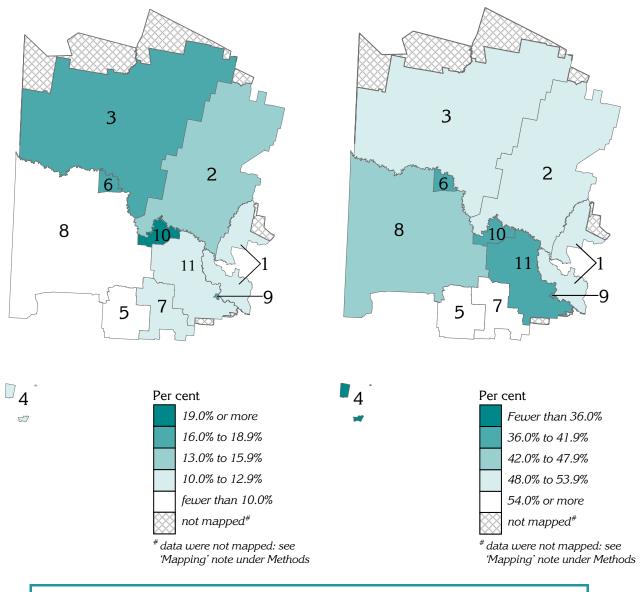
Table 2: Socio-demographic indicators, Mallee DGP, country Victoria, Victoria and Australia, 2001

Indicator	Mallee DGP		Country Vi	ctoria	Victori	a	Australia	
	No.	%	No.	%	No.	%	No.	%
Jobless families with children under 15 years old	1,644	17.2	24,724	17.4	77,142	15.4	357,563	17.4
Private health insurance (30 June)	34,066	41.8	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, Mallee DGP, 2001

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



Alphabetical key to Statistical Local Areas, Mallee DGP, 2001								
Balranald	2	Swan Hill - Robinvale	10					
Buloke - North	7	Wakool	1					
Mildura - Part A	6	Wentworth	3					
Mildura - Part B	8	West Wimmera	4					
Swan Hill Balance	11	Yarriambiack - North	5					
Swan Hill - Central	9							

# GP services to residents of the Mallee 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 (91.5%) of all unreferred attendances to residents of Mallee DGP were provided in the Division (ie. by a GP with a provider number in the Division): this represented 305,911 GP unreferred attendances (Table 3). A further 0.7% of unreferred attendances to residents were provided by GPs with a provider number in West Vic DGP, with 0.5% provided also by GPs in Melbourne DGP.

Table 3: Patient flow – People living<sup>1</sup> in Mallee DGP by Division where attendance occurred<sup>2</sup>, 2003/04

Division		Unreferred a	ttendances
Number	Name	No.	<b>%</b> <sup>3</sup>
332	Mallee DGP	305,911	91.5
330	West Vic DGP	2,293	0.7
301	Melbourne DGP	1,802	0.5
331	Murray-Plains DGP	1,748	0.5
513	Murray Mallee DGP	1,214	0.4
Other	•	21,402	6.4
Total		334,370	100.0

<sup>&</sup>lt;sup>1</sup> Based on address in Medicare records

The majority (94.2%) of unreferred attendances provided by GPs with a provider number in Mallee DGP were also to people living in the Division (ie. their Medicare address was in the Division) (Table 4). A further 0.6% of unreferred attendances provided by GPs in the Division were to residents of Murrumbidgee DGP, with 0.6% to people living in West Vic DGP, and 0.5% also to residents of Murray Plains DGP.

Table 4: GP catchment – Unreferred attendances provided by GPs<sup>1</sup> in Mallee DGP by Division of patient address<sup>2</sup>, 2003/04

Division		Unreferre	ed attendances
Number	Name	No.	<b>%</b> <sup>3</sup>
332	Mallee DGP	305,91	1 94.2
232	Murrumbidgee DGP	1,90	7 0.6
330	West Vic DGP	1,80	7 0.6
331	Murray-Plains DGP	1,71	2 0.5
326	Bendigo & District DGP	52	4 0.2
Other		12,99	9 4.0
Total	••	324,86	0 100.0

<sup>&</sup>lt;sup>1</sup> Division of GP based on provider number

<sup>&</sup>lt;sup>2</sup> Division of GP based on provider number

<sup>&</sup>lt;sup>3</sup> Proportion of all unreferred attendances of patients with an address in Division 332 by Division in which attendance occurred

<sup>&</sup>lt;sup>2</sup> Based on address in Medicare records

<sup>&</sup>lt;sup>3</sup> Proportion of all unreferred attendances to GPs with a provider number in Division 332 by Division of patient address

# Additional prevalence estimates: chronic diseases and risk factors combined

Please refer to the earlier *Population health profile of the Mallee Division of General Practice*, dated November 2005, available from <a href="https://www.publichealth.gov.au">www.publichealth.gov.au</a>, 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 Mallee DGP who had asthma and were smokers, compared to country Victoria and Australia as a whole (Figure 6, Table 5): that is, the prevalence rates per 1,000 population were higher. In contrast, there were fewer people in Mallee DGP who had type 2 diabetes and were overweight/obese, compared to country Victoria and Australia.

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



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

Variable	Mallee DGP		Country	Country Victoria		ria	Austr	Australia	
	No. <sup>1</sup>	Rate <sup>2</sup>	No.1	Rate <sup>2</sup>	No.1	Rate <sup>2</sup>	No. <sup>1</sup>	Rate <sup>1</sup>	
Had asthma & smoked <sup>3</sup>	1,986	25.5	29,424	24.6	95,664	19.9	397,734	20.8	
Had type 2 diabetes & were overweight/ obese	1,142	12.9	19,136	14.1	69,192	15.1	283,176	15.2	

<sup>&</sup>lt;sup>1</sup> No. is a weighted estimate of the number of people in Mallee DGP reporting these chronic conditions/ with these risk factors and is derived from synthetic predictions from the 2001 NHS

<sup>&</sup>lt;sup>2</sup> Rate is the indirectly age-standardised rate per 1,000 population

<sup>&</sup>lt;sup>3</sup> Population aged 18 years and over

<sup>&</sup>lt;sup>4</sup> 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 <a href="https://www.publichealth.gov.au">www.publichealth.gov.au</a>.

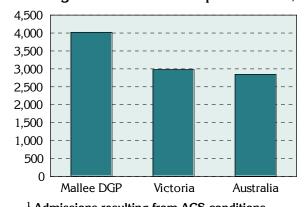
In 2001 to 2002, the 3,634 admissions from ambulatory care sensitive (ACS) conditions accounted for 10.9% of all admissions in the Mallee DGP (Table 6, Figure 7), markedly more than in Victoria (8.8%) and Australia (8.7%).

Table 6: Avoidable 1 and unavoidable hospitalisations, Mallee DGP, Victoria, and Australia, 2001/02

Category		Mallee DGP Victoria					P	Australia	
	No.	Rate <sup>2</sup>	%	No.	Rate <sup>2</sup>	%	No.	Rate <sup>2</sup>	%
Avoidable <sup>1</sup>	3,634	4,021.3	10.9	145,135	2,983.2	8.8	552,786	2,847.5	8.7
Unavoidable	29,791	34,129.2	89.1	1,510,437	31,088.3	91.2	5,818,199	29,970.7	91.3
Total	33,425	38,175.6	100.0	1,655,572	34,071.5	100.0	6,370,985	32,818.2	100.0

<sup>&</sup>lt;sup>1</sup> Admissions resulting from ACS conditions

Figure 7: Avoidable hospitalisations<sup>1</sup>, Mallee DGP, Victoria and Australia, 2001/02



The rate of avoidable hospitalisations in Mallee DGP is markedly higher, a rate of 4,021.3 admissions per 100,000 population, compared to both Victoria (a rate of 2,983.2) and Australia (2,847.5).

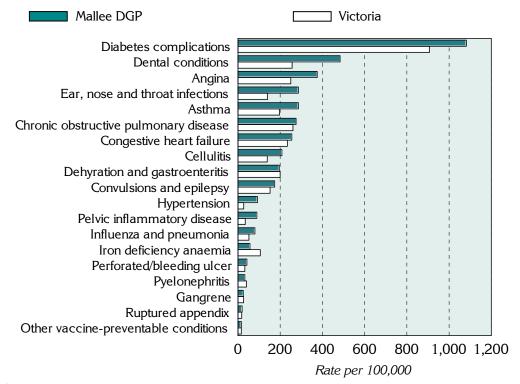
<sup>1</sup> Admissions resulting from ACS conditions

Diabetes complications, dental conditions and angina were the three conditions with the highest rates of avoidable hospitalisations in the Mallee 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. Dental conditions and ear, nose and throat infections have the highest rates of avoidable hospitalisations for the acute conditions.

<sup>&</sup>lt;sup>2</sup> Rate is the indirectly age-standardised rate per 100,000 population

Figure 8: Avoidable hospitalisations<sup>1</sup> by condition, Mallee DGP and Victoria, 2001/02



<sup>&</sup>lt;sup>1</sup> Admissions resulting from ACS conditions: excludes nutritional deficiencies as less than ten admissions

Table 7: Avoidable hospitalisations<sup>1</sup> by condition, Mallee DGP, Victoria and Australia, 2001/02

Sub-category/ condition	Mallee	DGP	Victo	oria	Austr	alia
	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>
Vaccine-preventable	87	96.5	3,293	68.0	16,573	85.4
Influenza and pneumonia	73	80.5	2,525	52.0	13,021	67.1
Other vaccine preventable	14	16.0	768	16.0	3,552	18.3
Chronic <sup>3</sup>	2,222	2,424.1	97,133	1,982.6	352,545	1,816
Diabetes complications	990	1,081.9	44,409	906.9	141,345	728.1
Iron deficiency anaemia	51	57.1	5,196	105.9	16,451	84.7
Hypertension	83	92.5	1,362	27.7	6,354	32.7
Congestive heart failure	236	255.1	11,655	234.1	42,447	218.6
Angina	345	375.5	12,285	250.4	49,963	257.4
Chronic obstructive pulmonary disease	257	275.6	12,850	260.7	54,853	282.6
Asthma	260	286.4	9,376	196.9	41,009	211.3
Acute	1,379	1,559.2	50,153	1,041.7	200,913	1,035
Dehydration and gastroenteritis	168	195.8	9,761	200.0	37,766	194.5
Convulsions and epilepsy	154	174.4	7,297	152.4	31,137	160.4
Ear, nose and throat infections	263	286.5	6,653	140.5	32,075	165.2
Dental conditions	433	483.9	12,235	256.7	43,667	224.9
Perforated/bleeding ulcer	39	42.7	1,618	32.9	5,795	29.9
Ruptured appendix	17	20.0	855	17.9	3,866	19.9
Pyelonephritis	27	32.7	1,948	40.2	7,386	38.0
Pelvic inflammatory disease	71	89.7	1,693	34.8	6,547	33.7
Cellulitis	184	208.2	6,751	139.0	28,204	145.3
Gangrene	23	25.3	1,342	27.3	4,470	23.0
Total avoidable hospitalisations <sup>4</sup>	3,634	4,021.3	145,135	2,983.2	552,786	2,847.5

<sup>&</sup>lt;sup>1</sup> Admissions resulting from ACS conditions

<sup>&</sup>lt;sup>2</sup> Rate is the indirectly age-standardised rate per 100,000 population

<sup>&</sup>lt;sup>3</sup> Excludes nutritional deficiencies as less than ten admissions

<sup>&</sup>lt;sup>4</sup> 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 <a href="https://www.publichealth.gov.au">www.publichealth.gov.au</a>.

Over two-thirds (72.2%) of all deaths in Mallee DGP at ages 0 to 74 years over the period 1997 to 2001 are considered to be avoidable, slightly higher than the proportion for country Victoria (70.8%) (Table 8). However, the rate in the Division is notably (16%) higher than that in country Victoria.

Deaths amenable to health care (amenable mortality, a subset of avoidable mortality) accounted for 28.8% of all deaths at ages 0 to 74 years in Mallee DGP, consistent with the 28.7% in country Victoria.

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

Mortality category	Mallee	DGP	Country '	Victoria	Victo	oria	Austr	alia
	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>
Avoidable	1,111	257.0	14,812	221.0	45,466	201.3	189,845	211.8
% of total	72.2	••	70.8	••	70.9		71.5	
(Amenable)	(444)	(101.5)	(6,001)	(88.2)	(18,406)	(81.4)	(76,249)	(85.1)
(% of total)	(28.8)	()	(28.7)	()	(28.7)	()	(28.7)	()
Unavoidable	427	97.8	6,100	90.0	18,617	82.4	75,582	84.3
% of total	27.7	••	29.2	••	29.1	••	28.5	
Total mortality	1,539	354.8	20,912	311.0	64,083	283.7	265,427	296.1
%	100.0	••	100.0	••	100.0		100.0	••

<sup>&</sup>lt;sup>1</sup> 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. Mallee DGP's rate of avoidable mortality for males was 333.2 deaths per 100,000 males, higher than the rate of 179.7 for females. The rate of amenable mortality for males in the Division was also higher, 114.1, compared to 88.6 for females, a rate ratio of 1.29 (Figure 9, Table 9).

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

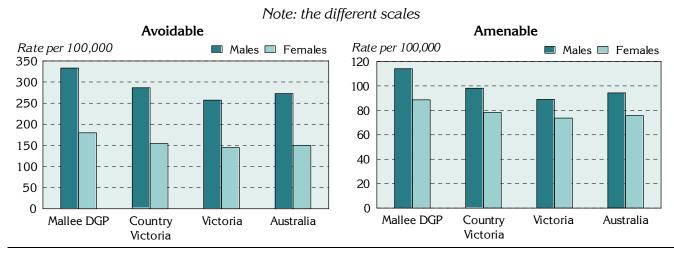


Table 9: Avoidable and amenable mortality (0 to 74 years) by sex, Mallee DGP, country Victoria, Victoria and Australia, 1997 to 2001

Mortality category	Mallee	DGP	Country	Victoria	Victo	oria	Austr	alia
and sex	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>
Avoidable								
Males	736	333.2	9,664	286.5	29,042	257.0	123,026	272.6
Females	375	179.7	5,148	154.5	16,424	144.8	66,819	150.1
Total	1,111	257.0	14,812	221.0	45,466	201.3	189,845	211.8
Rate ratio-M:F <sup>2</sup>		1.85**	••	1.85**	••	1.77**		1.82**
Amenable								
Males	259	114.1	3,386	98.1	10,052	88.9	42,568	94.3
Females	186	88.6	2,615	78.2	8,354	73.7	33,681	75.7
Total	444	101.5	6,001	88.2	18,406	81.4	76,249	85.1
Rate ratio-M:F <sup>2</sup>	••	1.29**	••	1.25**	••	1.21**	••	1.25**

<sup>&</sup>lt;sup>1</sup> Rate is the indirectly age-standardised rate per 100,000 population

Another way of measuring premature mortality is to calculate the number of years of life lost (YLL)<sup>1</sup>, 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 Mallee DGP, country Victoria, Victoria and Australia over the observation period 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 72.2% of total YLL (0 to 74 years) for Mallee DGP, slightly higher than the proportion for country Victoria. The proportion of YLL from amenable mortality for Mallee DGP (28.5%) was consistent with that for country Victoria (28.1%).

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

Mortality category	Mallee DGP		Country V	ictoria/	Victo	ria	Austra	ılia
	No.	% of	No.	% of	No.	% of	No.	% of
		total		total		total		total
Avoidable	18,907	72.2	253,666	71.2	790,054	71.5	3,327,375	71.9
(Amenable)	(7,466)	(28.5)	(100, 131)	(28.1)	(310,758)	(28.1)	(1,298,430)	(28.0)
Unavoidable	7,285	27.8	102,576	28.8	315,555	28.5	1,303,289	28.1
Total	26,192	100.0	356,242	100.0	1,105,610	100.0	4,630,664	100.0

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<sup>&</sup>lt;sup>2</sup> 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

<sup>&</sup>lt;sup>1</sup> 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 1,658.1 deaths per 100,000 population in the Mallee 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 374.2 in the Mallee Division.

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

Mortality category	Mallee	DGP	Country	Victoria	Victo	oria	Austr	alia
and age (years)	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>
Avoidable								
0-14	37	37.7	416	29.9	1,290	27.1	5,669	28.8
15-24	24	48.3	507	61.8	1,627	49.3	7,045	52.8
25-44	121	100.1	1,615	88.6	5,705	78.9	24,356	83.9
45-64	364	374.2	4,881	320.7	15,004	286.9	64,282	304.9
65-74	564	1,658.1	7,393	1396.1	21,840	1306.6	88,493	1,358.1
Total	1,111	257.0	14,812	221.0	45,466	201.3	189,845	211.8
Amenable								
0-24	31	19.4	352	15.5	1,189	14.9	5,083	15.4
25-44	33	27.1	419	22.3	1,382	19.1	5,946	20.5
45-64	153	157.3	2,091	137.4	6,489	123.8	27,464	130.3
65-74	228	671.6	3,139	593.1	9,348	558.6	37,756	579.4
Total	444	101.5	6,001	88.2	18,406	81.4	76,249	85.1

<sup>&</sup>lt;sup>1</sup> 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 Mallee DGP were for cancer, with a rate of 85.8 deaths per 100,000 population, and cardiovascular disease, 82.2 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 64.0 per 100,000 population and 30.2 per 100,000, respectively.

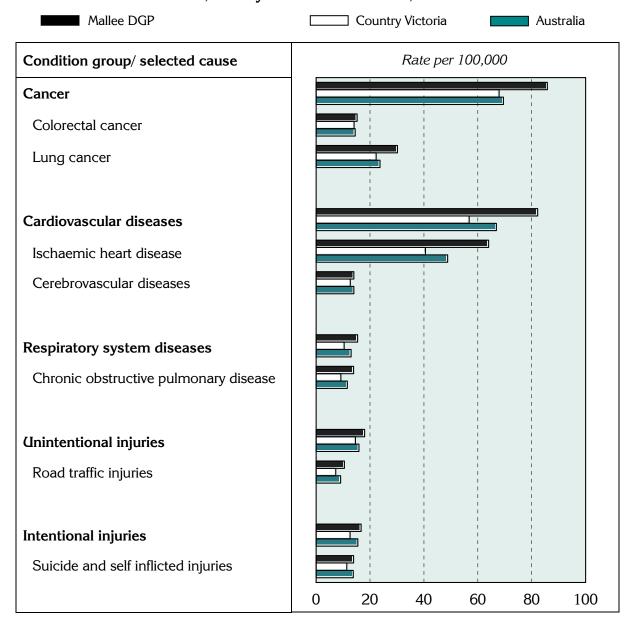
Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Mallee DGP, country Victoria, Victoria and Australia, 1997 to 2001

Condition group/	Mallee DGP		Country Victoria		Victoria		Australia	
selected cause	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>
Cancer	376	85.8	5,074	74.2	15,813	69.8	62,338	69.5
Colorectal cancer	67	15.2	1,133	16.5	3,351	14.8	13,008	14.5
Lung cancer	135	30.2	1,739	25.0	5,244	23.1	21,208	23.7
Cardiovascular diseases	368	82.2	4,666	67.0	13,612	60.0	59,945	66.9
Ischaemic heart disease	287	64.0	3,432	49.3	9,809	43.3	43,712	48.8
Cerebrovascular diseases	62	14.0	934	13.4	2,947	12.9	12,558	14.0
Respiratory system diseases	70	15.4	977	13.9	2,621	11.5	11,612	13.0
Chronic obstructive pulmonary disease	64	13.9	888	12.5	2,339	10.2	10,395	11.6
Unintentional injuries	69	18.0	1,142	19.3	3,536	15.9	14,224	15.9
Road traffic injuries	40	10.5	739	12.5	1,931	8.7	8,138	9.1
Intentional injuries	64	16.7	946	16.2	3,020	13.6	13,891	15.5
Suicide and self inflicted injuries	53	13.9	875	15.0	2,752	12.3	12,393	13.8

<sup>&</sup>lt;sup>1</sup> Rate is the indirectly age-standardised rate per 100,000 population

Rates in the Division were above, or consistent with, those in country Victoria and Australia for the condition groups and selected causes shown (Figure 10).

Figure 10: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Mallee 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) <sup>1</sup>					
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)					

<sup>&</sup>lt;sup>1</sup> 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 Mallee DGP

For information on the postcodes in the Division, please refer the Department of Health and Ageing website <a href="http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pcd-programs-divisions-divspc.htm">http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pcd-programs-divisions-divspc.htm</a>; 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, Mildura has two SLAs, Part A and Part B. These SLAs and all or parts of other SLAs listed comprise the Division (Table 14).

Table 14: SLAs and population in Mallee 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
10300	Balranald	95.8	2,616
17800	Wakool	32.9	1,593
18200	Wentworth	100.0	7,300
21271	Buloke – North	38.9	1,346
24781	Mildura - Part A	100.0	47,605
24782	Mildura - Part B	100.0	4,149
26611	Swan Hill - Central	100.0	10,124
26614	Swan Hill - Robinvale	100.0	4,042
26616	Swan Hill Balance	100.0	7,343
26890	West Wimmera	7.2	340
27631	Yarriambiack - North	85.0	1,831

<sup>\*</sup> 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

# Acknowledgements

Funding for these profiles was provided by the Population Health Division of the Department of Health and Ageing (DoHA).

# 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

For general comments, data issues or enquiries re information on the web site, please contact PHIDU:

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