

# Population health profile of the East Gippsland

## Division of General Practice: supplement

Population Profile Series: No. 63a

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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 East Gippsland Division of General Practice: supplement

This profile is a supplement to the *Population health profile of the East Gippsland Division of General Practice*, dated November 2005, available from [www.publichealth.gov.au](http://www.publichealth.gov.au). This supplement includes an update of the population of the East Gippsland 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:

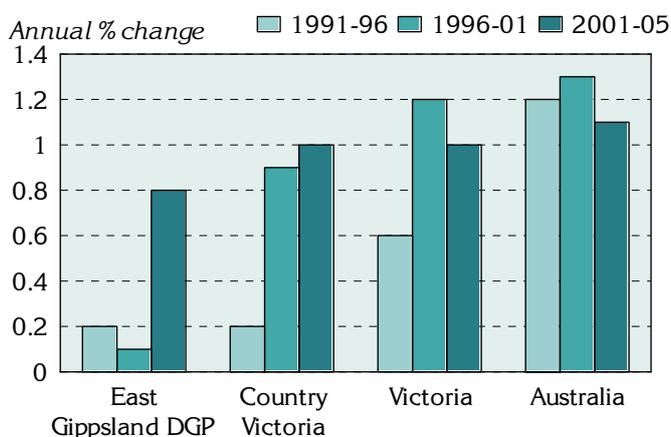
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances – patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive 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](http://www.publichealth.gov.au)).

## Population

The East Gippsland Division had an Estimated Resident Population of 76,526 at 30 June 2005.

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



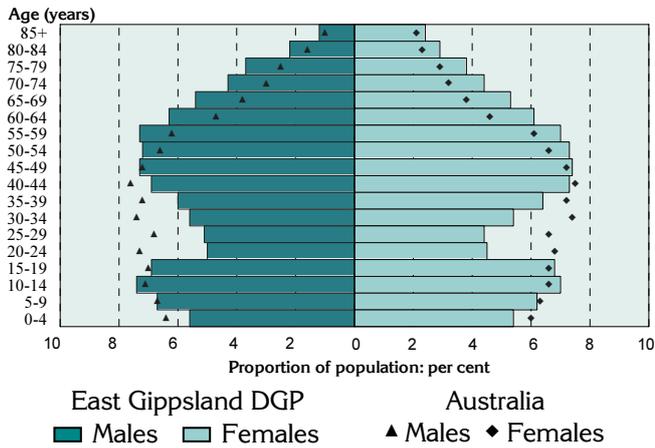
Over the five years from 1991 to 1996, the Division's population increased by 0.2% on average each year, consistent with the increase in country Victoria (0.2%) and below that in Victoria (0.6%). From 1996 to 2001, the Division's population increased by 0.1% each year, substantially lower than the increases for country Victoria (0.9%) and Victoria (1.2%). The growth rate in the Division increased to 0.8% from 2001 to 2005, but remained lower than the annual increases for country Victoria and Victoria (1.0%).

**Table 1: Population by age, East Gippsland DGP and Australia, 2005**

Age group (years)	East Gippsland DGP		Australia	
	No.	%	No.	%
0-14	14,642	19.1	3,978,221	19.6
15-24	8,837	11.5	2,819,834	13.9
25-44	17,996	23.5	5,878,107	28.9
45-64	21,401	28.0	4,984,446	24.5
65-74	7,426	9.7	1,398,831	6.9
75-84	4,832	6.3	954,143	4.7
85+	1,393	1.8	315,027	1.5
<b>Total</b>	<b>76,526</b>	<b>100.0</b>	<b>20,328,609</b>	<b>100.0</b>

As shown in the accompanying table and the age-sex pyramid below (Figure 2), the East Gippsland DGP had fewer people aged 15 to 24 years and 25 to 44 years (11.5% and 23.5%) than Australia as a whole (13.9% and 28.9%, respectively) (Table 1). Conversely, the proportions of the Division's population aged 45 years and over were higher than those for Australia.

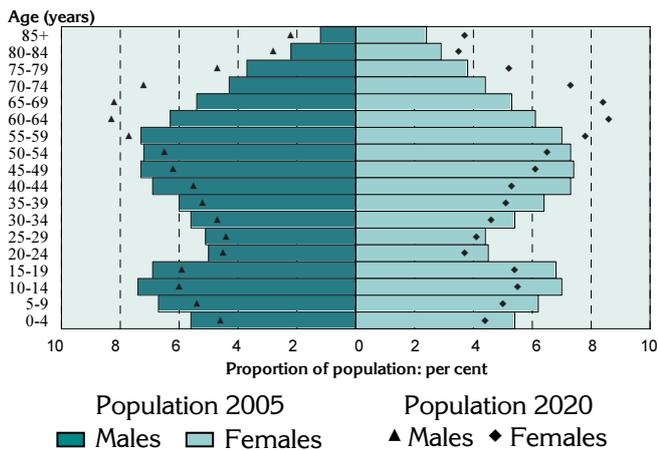
**Figure 2: Population in East Gippsland DGP and Australia, by age and sex, 2005**



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

- at younger ages – relatively fewer children aged 0 to 4 years, and relatively more young people aged 10 to 14 years;
- from 20 to 44 years – relatively fewer males and females, most pronounced at ages 20 to 34 years); and
- at older ages – relatively more males and females aged 45 years and over.

**Figure 3: Population projections for East Gippsland DGP, by age and sex, 2005 and 2020**



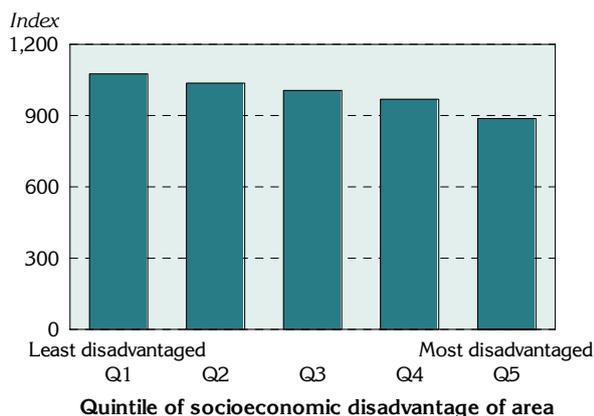
The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- at younger ages – relatively fewer children and young people aged 0 to 19 years;
- from 20 to 54 years – relatively fewer males and females; and
- from 55 years onwards – relatively more males and females, and substantially more from ages 60 to 74 years.

## Additional socio-demographic indicators

Please refer to the earlier *Population health profile of the East Gippsland Division of General Practice*, dated November 2005, available from [www.publichealth.gov.au](http://www.publichealth.gov.au), for other socio-demographic indicators.

**Figure 4: Index of Relative Socio-Economic Disadvantage, East Gippsland DGP, 2001**



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

The East Gippsland DGP has an index score of 994, below the score for Australia of 1000: this score varies across the Division, from a low of 887 in the most disadvantaged areas to 1075 in the least disadvantaged areas.

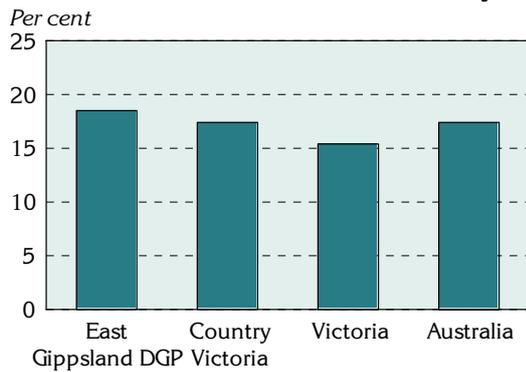
Note: each 'quintile' comprises approximately 20% of the population of the Division.

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 were more jobless families in the East Gippsland DGP (18.5%), compared to country Victoria as a whole (17.4%) (Figure 5, Table 2).

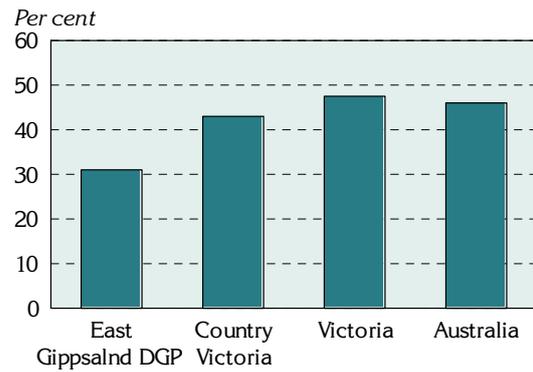
With the introduction of the 30% rebate for private health insurance premiums, there was a once-off registration process, providing information of the postcode and residence of those who had such insurance (these data are not available at this area level for later dates). In 2001, the Division had a markedly lower proportion of people with private health insurance (31.0%), compared to country Victoria (43.0%) (Figure 5, Table 2).

**Figure 5: Socio-demographic indicators, East Gippsland DGP, country Victoria, Victoria and Australia, 2001**

**Jobless families with children under 15 years old**



**Private health insurance, 30 June**

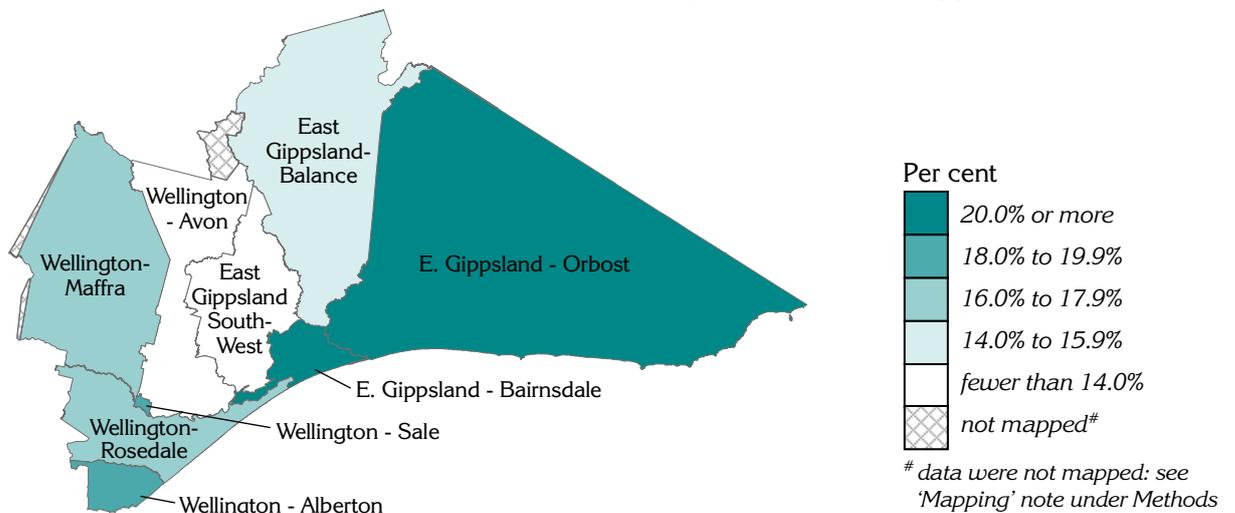


**Table 2: Socio-demographic indicators, East Gippsland DGP, country Victoria, Victoria and Australia, 2001**

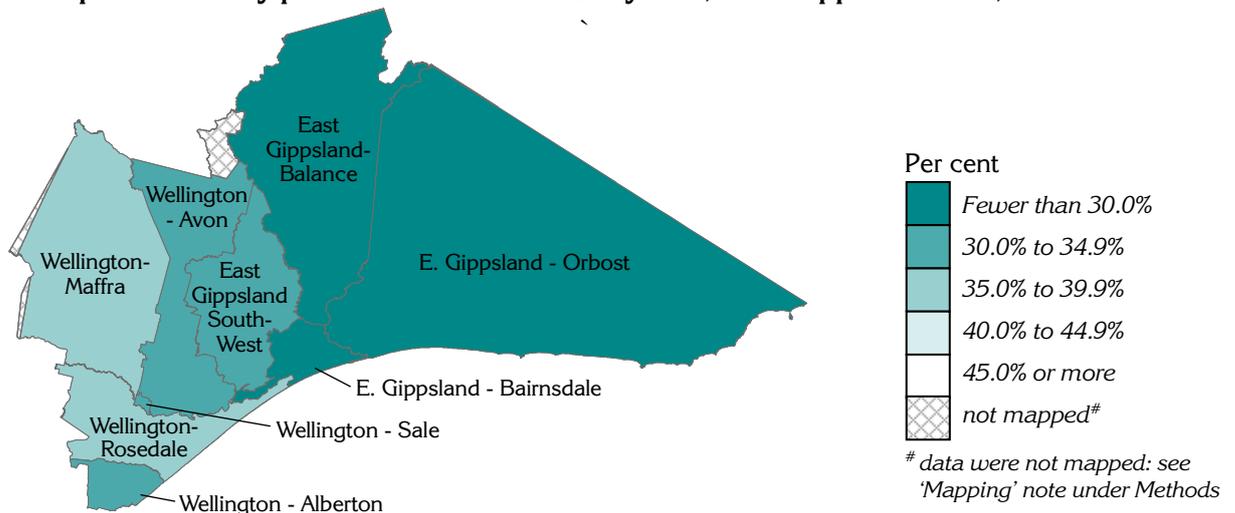
Indicator	East Gippsland DGP		Country Victoria		Victoria		Australia	
	No.	%	No.	%	No.	%	No.	%
Jobless families with children under 15 years old	1,411	18.5	24,724	17.4	77,142	15.4	357,563	17.4
Private health insurance (30 June)	21,272	31.0	543,292	43.0	2,196,890	47.5	8,671,106	46.0

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, East Gippsland DGP, 2001**



**Map 2: People covered by private health insurance by SLA, East Gippsland DGP, 30 June 2001**



## GP services to residents of the East Gippsland 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 (90.8%) of all unreferred attendances to residents of East Gippsland DGP were also provided in the Division (ie. by a GP with a provider number in the Division): this represented 279,386 GP unreferred attendances (Table 3). A further 2.0% of unreferred attendances to residents were provided by GPs with a provider number in Central West Gippsland DGP.

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

Division		Unreferred attendances	
Number	Name	No.	% <sup>3</sup>
328	East Gippsland DGP	279,386	90.8
323	Central West Gippsland DGP	6,015	2.0
301	Melbourne DGP	1,980	0.6
315	Dandenong District DGP	1,560	0.5
221	South East NSW DGP	1,243	0.4
304	Southcity DGP	1,127	0.4
306	Western Melbourne DGP	1,121	0.4
Other	..	14,344	5.0
<b>Total</b>	<b>..</b>	<b>307,662</b>	<b>100.0</b>

<sup>1</sup> Based on address in Medicare records

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

<sup>3</sup> Proportion of all unreferred attendances of patients with an address in Division 328 by Division in which attendance occurred

The majority (94.5%) of unreferred attendances provided by GPs with a provider number in East Gippsland DGP were also to people living in the Division (ie. their Medicare address was in the Division) (Table 4). A further 1.4% of unreferred attendances provided by GPs in the Division were to people living in Central West Gippsland DGP.

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

Division		Unreferred attendances	
Number	Name	No.	% <sup>3</sup>
328	East Gippsland DGP	279,386	94.5
323	Central West Gippsland DGP	4,203	1.4
316	Mornington Peninsula DGP	964	0.3
322	South Gippsland DGP	950	0.3
301	Melbourne DGP	642	0.2
315	Dandenong District DGP	642	0.2
320	Eastern Ranges DGP	577	0.2
221	South East NSW DGP	454	0.2
Other	..	7,877	2.7
<b>Total</b>	<b>..</b>	<b>295,695</b>	<b>100.0</b>

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

<sup>2</sup> Based on address in Medicare records

<sup>3</sup> Proportion of all unreferred attendances to GPs with a provider number in Division 328 by Division of patient address

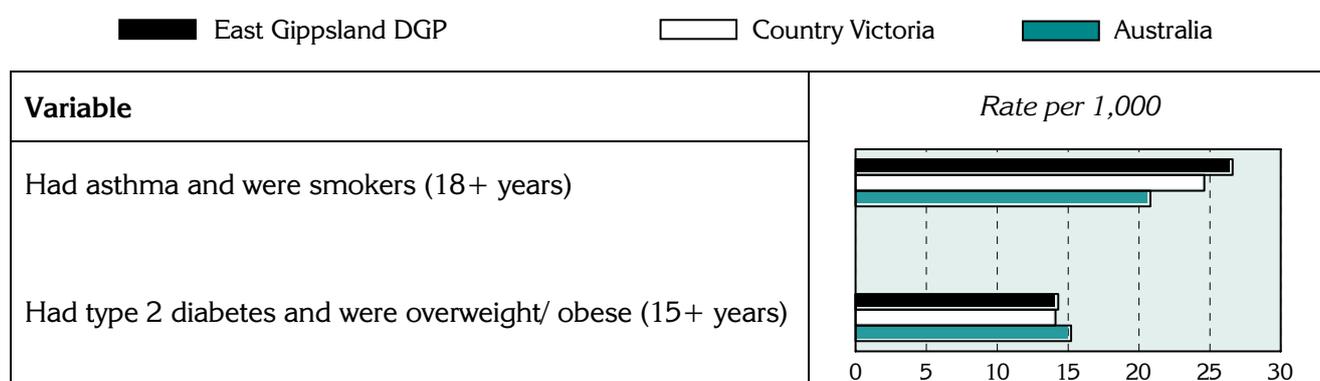
## Additional prevalence estimates: chronic diseases and risk factors combined

Please refer to the earlier *Population health profile of the East Gippsland Division of General Practice*, dated November 2005, available from [www.publichealth.gov.au](http://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 East Gippsland 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 was a lower rate of people in East Gippsland DGP who had type 2 diabetes and were overweight/ obese, compared to Australia: the rate was, however, consistent with that in country Victoria.

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



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

Variable	East Gippsland DGP		Country Victoria		Victoria		Australia	
	No. <sup>1</sup>	Rate <sup>2</sup>	No. <sup>1</sup>	Rate <sup>2</sup>	No. <sup>1</sup>	Rate <sup>2</sup>	No. <sup>1</sup>	Rate <sup>1</sup>
Had asthma & smoked <sup>3</sup>	1,673	26.6	29,424	24.6	95,664	19.9	397,734	20.8
Had type 2 diabetes & were overweight/ obese <sup>4</sup>	1,189	14.3	19,136	14.1	69,192	15.1	283,176	15.2

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

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

<sup>3</sup> Population aged 18 years and over

<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 [www.publichealth.gov.au](http://www.publichealth.gov.au).

In 2001 to 2002, the 2,867 admissions from ambulatory care sensitive (ACS) conditions accounted for 11.6% of all admissions in the East Gippsland DGP (Table 6, Figure 7), markedly above the levels in Victoria (8.8%) and Australia (8.7%).

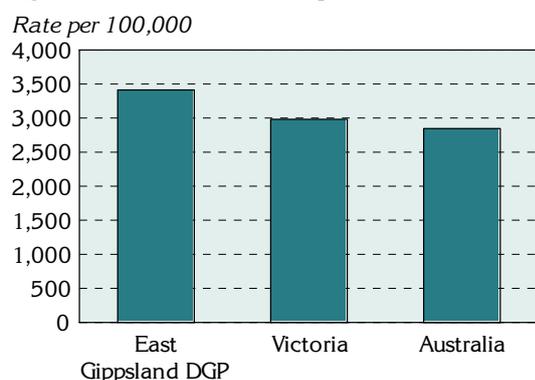
**Table 6: Avoidable<sup>1</sup> and unavoidable hospitalisations, East Gippsland DGP, Victoria, and Australia, 2001/02**

Category	East Gippsland DGP			Victoria			Australia		
	No.	Rate <sup>2</sup>	%	No.	Rate <sup>2</sup>	%	No.	Rate <sup>2</sup>	%
Avoidable <sup>1</sup>	2,867	3,412.6	11.6	145,135	2,983.2	8.8	552,786	2,847.5	8.7
Unavoidable	21,934	27,379.4	88.4	1,510,437	31,088.3	91.2	5,818,199	29,970.7	91.3
<b>Total</b>	<b>24,801</b>	<b>30,827.8</b>	<b>100.0</b>	<b>1,655,572</b>	<b>34,071.5</b>	<b>100.0</b>	<b>6,370,985</b>	<b>32,818.2</b>	<b>100.0</b>

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

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

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



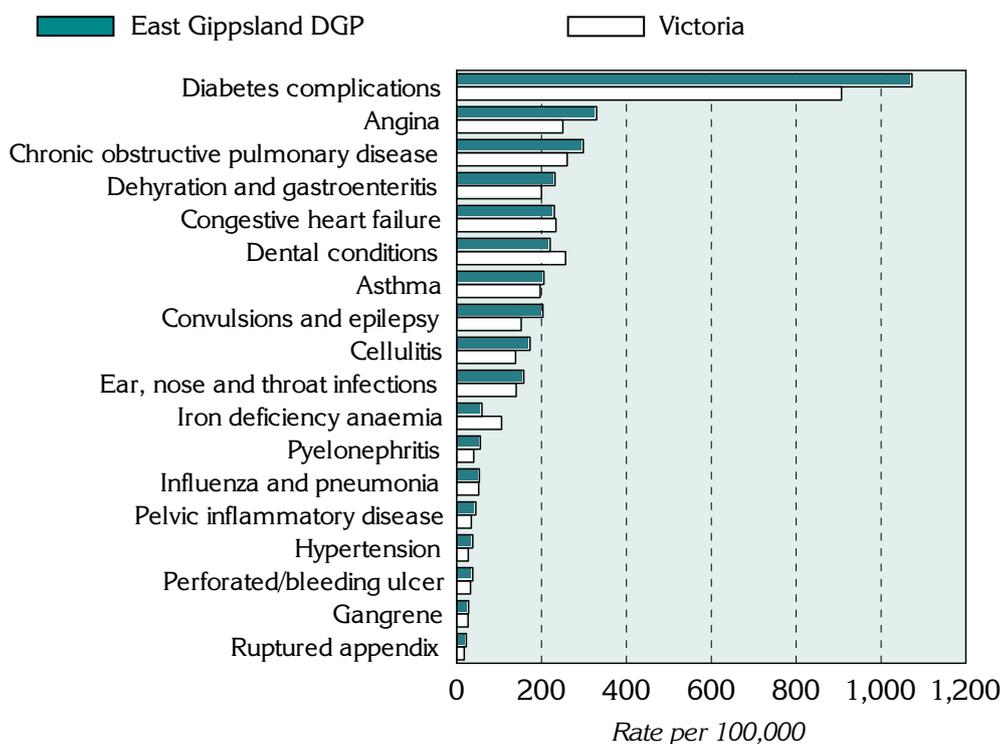
The rate of avoidable hospitalisations in East Gippsland DGP is notably higher, a rate of 3,412.6 admissions per 100,000 population, compared to both Victoria (a rate of 2,983.2) and Australia (2,847.5).

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

Diabetes complications, angina and chronic obstructive pulmonary disease were the three conditions with the highest rates of avoidable hospitalisations in the East Gippsland 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 dental conditions have the highest rates of avoidable hospitalisations for the acute conditions.

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



<sup>1</sup> Admissions resulting from ACS conditions: excludes nutritional deficiencies as less than ten admissions, and other vaccine-preventable conditions as number of admissions insufficient

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

Sub-category/ condition	East Gippsland DGP		Victoria		Australia	
	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>
<b>Vaccine-preventable</b>	<b>44</b>	<b>53.7</b>	<b>3,293</b>	<b>68.0</b>	<b>16,573</b>	<b>85.4</b>
Influenza and pneumonia	44	53.7	2,525	52.0	13,021	67.1
Other vaccine preventable	#	..	768	16.0	3,552	18.3
<b>Chronic<sup>3</sup></b>	<b>2,006</b>	<b>2,235.1</b>	<b>97,133</b>	<b>1,982.6</b>	<b>352,545</b>	<b>1,816</b>
Diabetes complications	974	1,072.8	44,409	906.9	141,345	728.1
Iron deficiency anaemia	52	59.7	5,196	105.9	16,451	84.7
Hypertension	33	38.2	1,362	27.7	6,354	32.7
Congestive heart failure	212	230.4	11,655	234.1	42,447	218.6
Angina	302	330.1	12,285	250.4	49,963	257.4
Chronic obstructive pulmonary disease	282	298.4	12,850	260.7	54,853	282.6
Asthma	151	205.5	9,376	196.9	41,009	211.3
<b>Acute</b>	<b>894</b>	<b>1,177.8</b>	<b>50,153</b>	<b>1,041.7</b>	<b>200,913</b>	<b>1,035</b>
Dehydration and gastroenteritis	183	232.0	9,761	200.0	37,766	194.5
Convulsions and epilepsy	150	203.3	7,297	152.4	31,137	160.4
Ear, nose and throat infections	113	158.2	6,653	140.5	32,075	165.2
Dental conditions	162	220.5	12,235	256.7	43,667	224.9
Perforated/bleeding ulcer	34	38.2	1,618	32.9	5,795	29.9
Ruptured appendix	17	23.0	855	17.9	3,866	19.9
Pyelonephritis	41	55.9	1,948	40.2	7,386	38.0
Pelvic inflammatory disease	30	45.5	1,693	34.8	6,547	33.7
Cellulitis	139	172.9	6,751	139.0	28,204	145.3
Gangrene	25	28.3	1,342	27.3	4,470	23.0
<b>Total avoidable hospitalisations<sup>4</sup></b>	<b>2,867</b>	<b>3,412.6</b>	<b>145,135</b>	<b>2,983.2</b>	<b>552,786</b>	<b>2,847.5</b>

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

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

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

<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

# Not shown or not calculated as there are fewer than five admissions over the period

## 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](http://www.publichealth.gov.au).

Over two-thirds (71.6%) of all deaths in East Gippsland DGP at ages 0 to 74 years over the period 1997 to 2001 are considered to be avoidable, just above the proportion for country Victoria (70.8%) (Table 8). Deaths amenable to health care (amenable mortality, a subset of avoidable mortality) accounted for 29.6% of all deaths at ages 0 to 74 years in East Gippsland DGP, also slightly higher than the 28.7% in country Victoria.

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

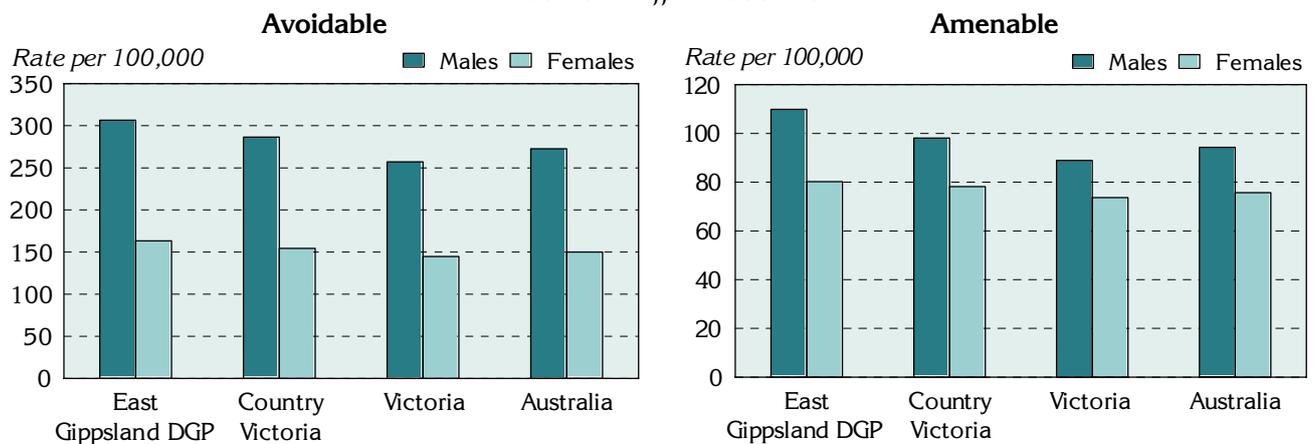
Mortality category	East Gippsland DGP		Country Victoria		Victoria		Australia	
	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>
Avoidable	979	235.5	14,812	221.0	45,466	201.3	189,845	211.8
% of total	71.6	..	70.8	..	70.9	..	71.5	..
(Amenable)	(404)	(95.3)	(6,001)	(88.2)	(18,406)	(81.4)	(76,249)	(85.1)
(% of total)	(29.6)	(..)	(28.7)	(..)	(28.7)	(..)	(28.7)	(..)
Unavoidable	388	91.9	6,100	90.0	18,617	82.4	75,582	84.3
% of total	28.4	..	29.2	..	29.1	..	28.5	..
<b>Total mortality</b>	<b>1,367</b>	<b>327.4</b>	<b>20,912</b>	<b>311.0</b>	<b>64,083</b>	<b>283.7</b>	<b>265,427</b>	<b>296.1</b>
%	100.0	..	100.0	..	100.0	..	100.0	..

<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. East Gippsland DGP's rate of avoidable mortality for males was 306.6 deaths per 100,000 males, higher than the rate of 163.3 for females. The rate of amenable mortality for males in the Division was also higher, 109.9, compared to 80.2 for females, a rate ratio of 1.37 (Figure 9, Table 9).

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

Mortality category and sex	East Gippsland DGP		Country Victoria		Victoria		Australia	
	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>
<b>Avoidable</b>								
Males	649	306.6	9,664	286.5	29,042	257.0	123,026	272.6
Females	330	163.3	5,148	154.5	16,424	144.8	66,819	150.1
<b>Total</b>	<b>979</b>	<b>235.5</b>	<b>14,812</b>	<b>221.0</b>	<b>45,466</b>	<b>201.3</b>	<b>189,845</b>	<b>211.8</b>
<b>Rate ratio-M:F<sup>2</sup></b>	<b>..</b>	<b>1.88**</b>	<b>..</b>	<b>1.85**</b>	<b>..</b>	<b>1.77**</b>	<b>..</b>	<b>1.82**</b>
<b>Amenable</b>								
Males	241	109.9	3,386	98.1	10,052	88.9	42,568	94.3
Females	163	80.2	2,615	78.2	8,354	73.7	33,681	75.7
<b>Total</b>	<b>404</b>	<b>95.3</b>	<b>6,001</b>	<b>88.2</b>	<b>18,406</b>	<b>81.4</b>	<b>76,249</b>	<b>85.1</b>
<b>Rate ratio-M:F<sup>2</sup></b>	<b>..</b>	<b>1.37**</b>	<b>..</b>	<b>1.25**</b>	<b>..</b>	<b>1.21**</b>	<b>..</b>	<b>1.25**</b>

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

<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

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 East Gippsland 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 East Gippsland DGP, consistent with the proportion for country Victoria. The proportion of YLL from amenable mortality for East Gippsland DGP (28.7%) was marginally higher than that for country Victoria (28.1%).

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

Mortality category	East Gippsland DGP		Country Victoria		Victoria		Australia	
	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Avoidable	16,404	71.5	253,666	71.2	790,054	71.5	3,327,375	71.9
(Amenable)	(6,575)	(28.7)	(100,131)	(28.1)	(310,758)	(28.1)	(1,298,430)	(28.0)
Unavoidable	6,532	28.5	102,576	28.8	315,555	28.5	1,303,289	28.1
<b>Total</b>	<b>22,937</b>	<b>100.0</b>	<b>356,242</b>	<b>100.0</b>	<b>1,105,610</b>	<b>100.0</b>	<b>4,630,664</b>	<b>100.0</b>

<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 1,458.5 deaths per 100,000 population in the East Gippsland 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 364.8 in the East Gippsland Division.

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

Mortality category and age (years)	East Gippsland DGP		Country Victoria		Victoria		Australia	
	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>
<b>Avoidable</b>								
0-14	21	27.0	416	29.9	1,290	27.1	5,669	28.8
15-24	26	60.7	507	61.8	1,627	49.3	7,045	52.8
25-44	89	89.6	1,615	88.6	5,705	78.9	24,356	83.9
45-64	346	364.8	4,881	320.7	15,004	286.9	64,282	304.9
65-74	497	1,458.5	7,393	1396.1	21,840	1306.6	88,493	1,358.1
<b>Total</b>	<b>979</b>	<b>235.5</b>	<b>14,812</b>	<b>221.0</b>	<b>45,466</b>	<b>201.3</b>	<b>189,845</b>	<b>211.8</b>
<b>Amenable</b>								
0-24	18	14.3	352	15.5	1,189	14.9	5,083	15.4
25-44	20	19.1	419	22.3	1,382	19.1	5,946	20.5
45-64	153	161.6	2,091	137.4	6,489	123.8	27,464	130.3
65-74	213	628.3	3,139	593.1	9,348	558.6	37,756	579.4
<b>Total</b>	<b>404</b>	<b>95.3</b>	<b>6,001</b>	<b>88.2</b>	<b>18,406</b>	<b>81.4</b>	<b>76,249</b>	<b>85.1</b>

<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 East Gippsland DGP were for cardiovascular disease, with a rate of 75.8 deaths per 100,000 population, and cancer, 72.5 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 55.0 per 100,000 population and 20.2 per 100,000, respectively.

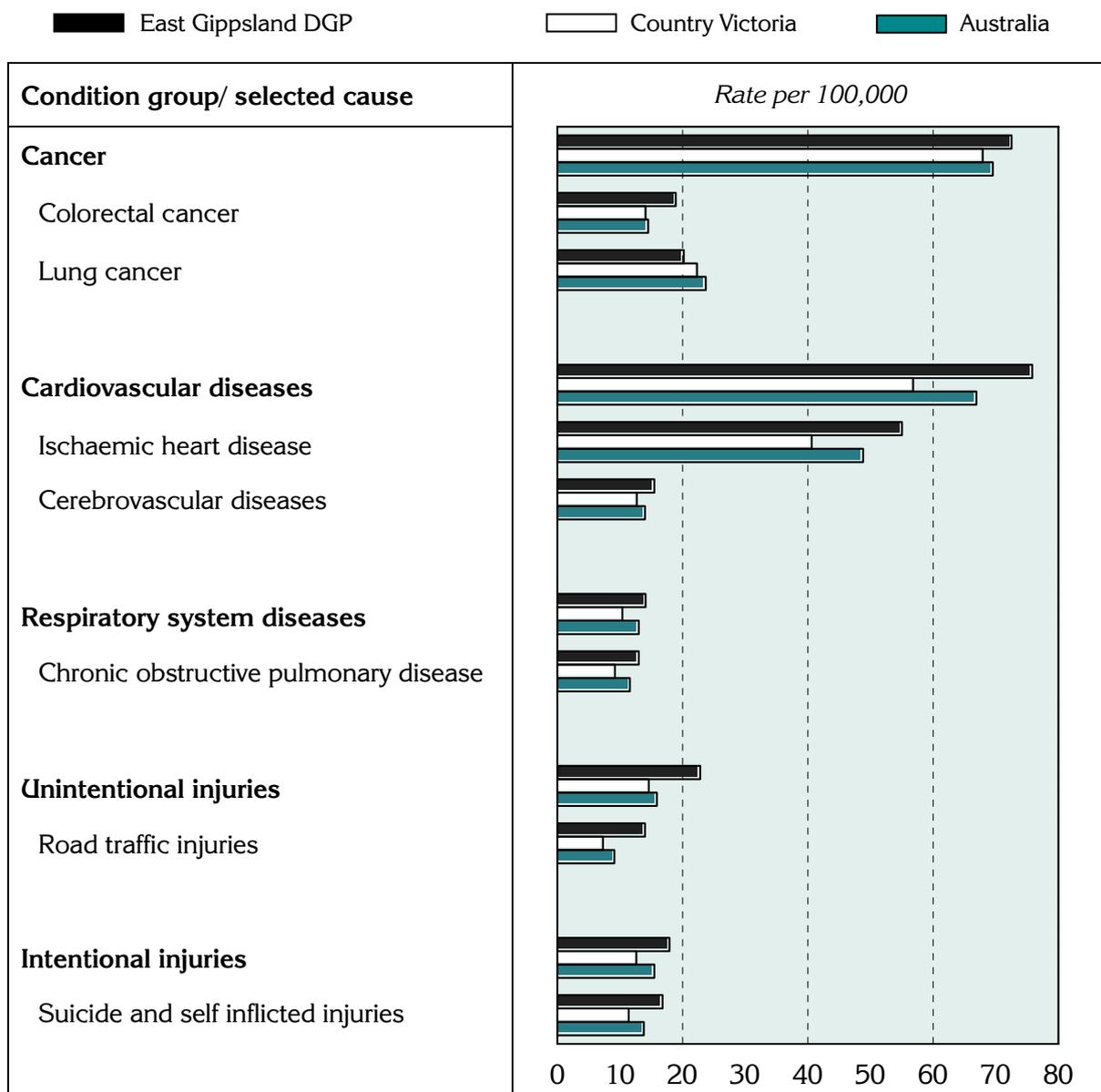
**Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, East Gippsland DGP, country Victoria, Victoria and Australia, 1997 to 2001**

Condition group/ selected cause	East Gippsland DGP		Country Victoria		Victoria		Australia	
	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>
<b>Cancer</b>	<b>312</b>	<b>72.5</b>	<b>5,074</b>	<b>74.2</b>	<b>15,813</b>	<b>69.8</b>	<b>62,338</b>	<b>69.5</b>
Colorectal cancer	82	18.9	1,133	16.5	3,351	14.8	13,008	14.5
Lung cancer	89	20.2	1,739	25.0	5,244	23.1	21,208	23.7
<b>Cardiovascular diseases</b>	<b>335</b>	<b>75.8</b>	<b>4,666</b>	<b>67.0</b>	<b>13,612</b>	<b>60.0</b>	<b>59,945</b>	<b>66.9</b>
Ischaemic heart disease	243	55.0	3,432	49.3	9,809	43.3	43,712	48.8
Cerebrovascular diseases	68	15.5	934	13.4	2,947	12.9	12,558	14.0
<b>Respiratory system diseases</b>	<b>63</b>	<b>14.1</b>	<b>977</b>	<b>13.9</b>	<b>2,621</b>	<b>11.5</b>	<b>11,612</b>	<b>13.0</b>
Chronic obstructive pulmonary disease	59	13.0	888	12.5	2,339	10.2	10,395	11.6
<b>Unintentional injuries</b>	<b>76</b>	<b>22.8</b>	<b>1,142</b>	<b>19.3</b>	<b>3,536</b>	<b>15.9</b>	<b>14,224</b>	<b>15.9</b>
Road traffic injuries	46	14.0	739	12.5	1,931	8.7	8,138	9.1
<b>Intentional injuries</b>	<b>59</b>	<b>17.9</b>	<b>946</b>	<b>16.2</b>	<b>3,020</b>	<b>13.6</b>	<b>13,891</b>	<b>15.5</b>
Suicide and self inflicted injuries	55	16.8	875	15.0	2,752	12.3	12,393	13.8

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

With the exception of lower rates for lung cancer, rates in the Division were above 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, East Gippsland 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
<b>Population</b>	
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>
<b>Additional socio-demographic indicators</b>	
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
<b>GP services – patient flow/ GP catchment</b>	
Tables 3 and 4	Medicare Australia, 2003/04
<b>Additional prevalence estimates: chronic diseases and risk factors combined</b>	
Figure 6; Table 5	Estimated from 2001 National Health Survey (NHS), ABS (unpublished)
<b>Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive conditions</b>	
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)
<b>Avoidable mortality</b>	
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>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](http://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 East Gippsland 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](http://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, all of the Local Government Areas have been split into SLAs. For example, the LGA of East Gippsland has four SLAs - Bairnsdale, Orbost, South-West and Balance. All of these SLAs and all or parts of the SLAs listed in Table 14 comprise the Division.

**Table 14: SLAs and population in East Gippsland 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
22111	East Gippsland - Bairnsdale	100.0	26,620
22113	East Gippsland - Orbost	100.0	8,624
22115	East Gippsland - South-West	100.0	3,600
22117	East Gippsland Balance	100.0	2,560
26811	Wellington - Alberton	5.1	297
26812	Wellington - Avon	100.0	4,002
26813	Wellington - Maffra	100.0	10,414
26814	Wellington - Rosedale	86.5	6,904
26815	Wellington - Sale	100.0	13,505

\* 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

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