

# Population health profile of the Eastern Goldfields

## Division of General Practice: supplement

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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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Enquiries about or comments on this publication should be addressed to:

PHIDU, The University of Adelaide, South Australia 5005  
Phone: 08-8303 6236 or e-mail: [PHIDU@publichealth.gov.au](mailto:PHIDU@publichealth.gov.au)

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Contributors: Anthea Page, Sarah Ambrose, Kristin Leahy and John Glover

# Population health profile of the Eastern Goldfields Division of General Practice: supplement

This profile is a supplement to the *Population health profile of the Eastern Goldfields 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 Eastern Goldfields 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:

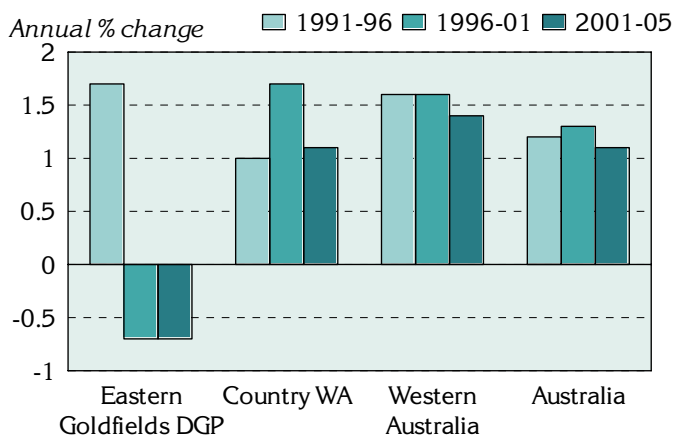
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances – patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive 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 Eastern Goldfields Division had an Estimated Resident Population of 54,743 at 30 June 2005.

**Figure 1: Annual population change, Eastern Goldfields DGP, country Western Australia, Western Australia and Australia, 1991 to 1996, 1996 to 2001 and 2001 to 2005**



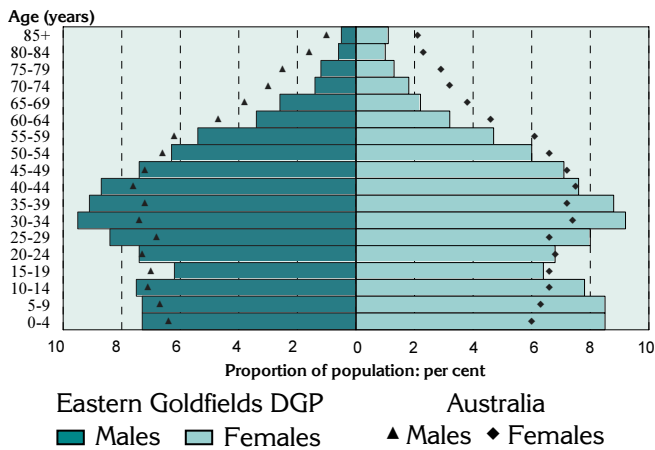
Over the five years from 1991 to 1996, the Division's population increased by 1.7% on average each year, higher than in country Western Australia (1.0%) and Western Australia (1.6%). From 1996 to 2001, the population decreased on average by 0.7%, compared with increases for country Western Australia (1.7%) and Western Australia (1.6%). The Division's population again decreased by an average of 0.7% each year from 2001 to 2005 compared with increases in country Western Australia (1.1%) and Western Australia (1.4%).

**Table 1: Population by age, Eastern Goldfields DGP and Australia, 2005**

Age group (years)	Eastern Goldfields DGP		Australia	
	No.	%	No.	%
0-14	12,762	23.3	3,978,221	19.6
15-24	7,334	13.4	2,819,834	13.9
25-44	19,031	34.8	5,878,107	28.9
45-64	11,896	21.7	4,984,446	24.5
65-74	2,195	4.0	1,398,831	6.9
75-84	1,107	2.0	954,143	4.7
85+	418	0.8	315,027	1.5
<b>Total</b>	<b>54,743</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 Eastern Goldfields DGP had relatively more children, 23.3% at ages 0 to 14 years, and people aged 25 to 44 years, 34.8%, compared to Australia as a whole (19.6% and 28.9%) (Table 1). Conversely, the proportions of the Division's population in all other age groups were below those for Australia.

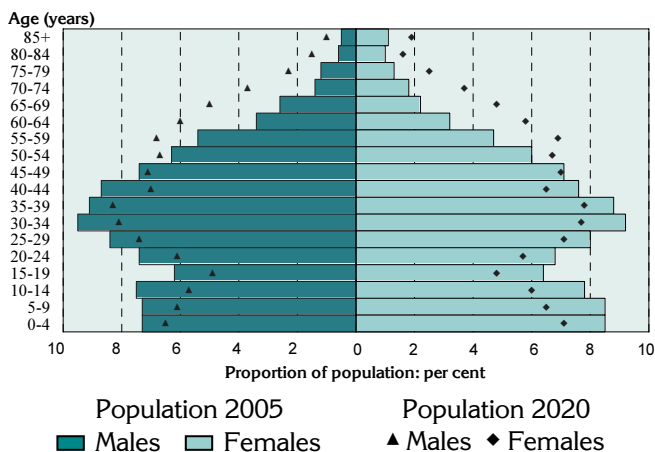
**Figure 2: Population in Eastern Goldfields DGP and Australia, by age and sex, 2005**



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 (particularly females);
- from 25 to 49 years – relatively more males and females (to 39 years); and
- from 50 years onwards – relatively fewer males and females.

**Figure 3: Population projections for Eastern Goldfields DGP, by age and sex, 2005 and 2020**



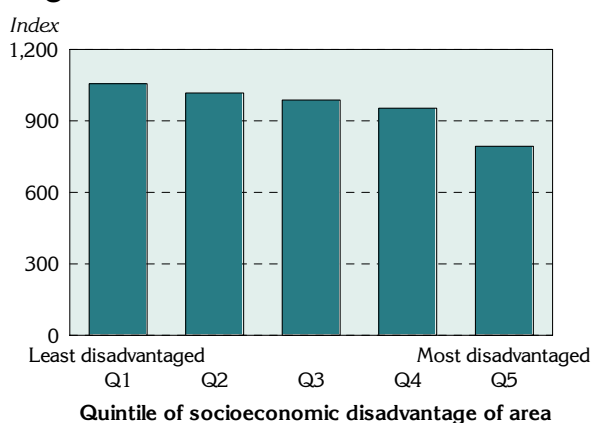
The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- 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 50 years of age – higher proportions of both males and females.

## Additional socio-demographic indicators

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



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

The Eastern Goldfields DGP has an index score of 962, below the score for Australia of 1000: this score varies across the Division, from a low of 793 in the most disadvantaged areas to 1055 in the least disadvantaged areas.

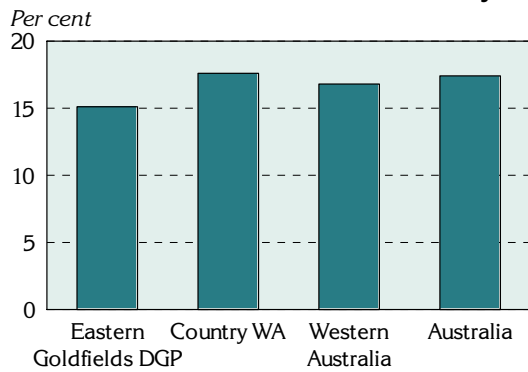
Note: each 'quintile' comprises approximately 20% of the population of the Division.

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 notably fewer jobless families in the Eastern Goldfields DGP (15.1%), compared to country Western Australia as a whole (17.6%) (Figure 5, Table 2).

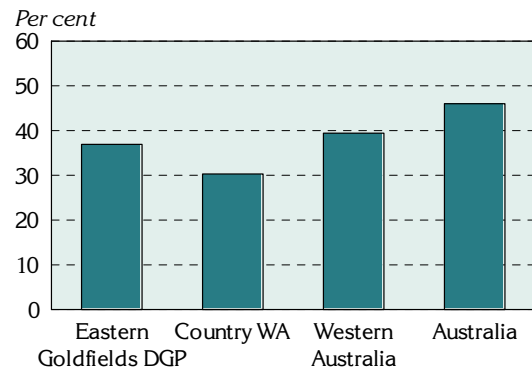
With the introduction of the 30% rebate for private health insurance premiums, there was a once-off registration process, providing information of the postcode and residence of those who had such insurance (these data are not available at this area level for later dates). In 2001, the Division had a markedly higher proportion of people with private health insurance (36.9%), compared to country Western Australia (30.3%) (Figure 5, Table 2).

**Figure 5: Socio-demographic indicators, Eastern Goldfields DGP, country Western Australia, Western Australia and Australia, 2001**

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



**Private health insurance, 30 June**

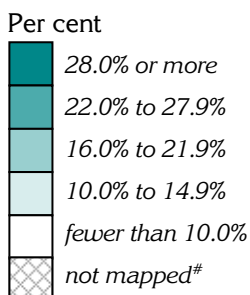
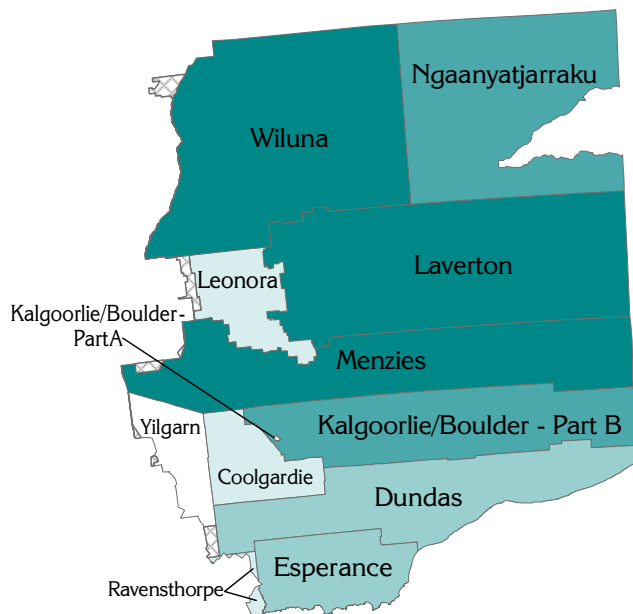


**Table 2: Socio-demographic indicators, Eastern Goldfields DGP, country Western Australia, Western Australia and Australia, 2001**

Indicator	Eastern Goldfields DGP		Country WA		Western Australia		Australia	
	No.	%	No.	%	No.	%	No.	%
Jobless families with children under 15 years old	993	15.1	10,142	17.6	34,396	16.8	357,563	17.4
Private health insurance (30 June)	22,215	36.9	148,821	30.3	708,743	39.4	8,671,106	46.0

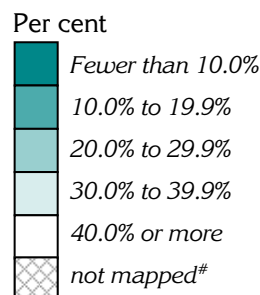
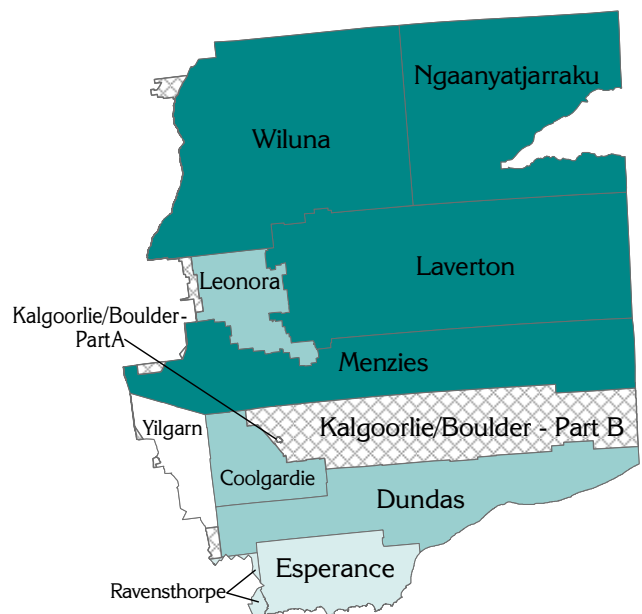
Details of the distribution of jobless families (Map 1) and of the population covered by private health insurance (Map 2) are shown by Statistical Local Area (SLA) in Maps 1 and 2, respectively.

**Map 1: Jobless families with children under 15 years of age by SLA, Eastern Goldfields DGP, 2001**



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

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



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

## GP services to residents of the Eastern Goldfields 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 (89.2%) of all unreferred attendances to residents of Eastern Goldfields DGP were provided in the Division (ie. by a GP with a provider number in the Division): this represented 152,105 GP unreferred attendances (Table 3). GPs with provider numbers in the Perth & Hills DGP and Osborne DGP provided residents with 1.7% and 1.5% of unreferred attendances, respectively.

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

Division		Unreferred attendances	
Number	Name	No.	% <sup>3</sup>
611	Eastern Goldfields DGP	152,105	89.2
601	Perth & Hills DGP	2,898	1.7
603	Osborne DGP	2,538	1.5
604	Canning DGP	2,150	1.3
605	Fremantle Regional DGP	1,728	1.0
Other	..	9,069	5.3
<b>Total</b>	<b>..</b>	<b>170,488</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 611 by Division in which attendance occurred

Well over four fifths (86.9%) of unreferred attendances provided by GPs with a provider number in Eastern Goldfields DGP were also to people living in the Division (ie. their Medicare address was in the Division) (Table 4). A further 1.3% of unreferred attendances by GPs in the Division were to people living in Central Australian DGP and 1.2% of unreferred attendances were to residents from Perth & Hills DGP.

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

Division		Unreferred attendances	
Number	Name	No.	% <sup>3</sup>
611	Eastern Goldfields DGP	152,105	86.9
802	Central Australian DGP	2,238	1.3
601	Perth & Hills DGP	2,114	1.2
604	Canning DGP	1,920	1.1
Other	..	16,756	9.5
<b>Total</b>	<b>..</b>	<b>175,133</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 611 by Division of patient address

## Additional prevalence estimates: chronic diseases and risk factors combined: Kalgoorlie/Boulder - Part A (part of Eastern Goldfields DGP)

Please refer to the earlier *Population health profile of the Eastern Goldfields 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 SLA of Kalgoorlie/Boulder-Part A, which comprises approximately 50.0% of the Division's population. The estimates have not been made for the whole Division as only these SLAs were included in the National Health Survey. 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 fewer people in Kalgoorlie/Boulder-Part A SLA who had asthma and were smokers, compared to country Western Australia as a whole (Figure 6, Table 5): that is, the prevalence rates per 1,000 population were lower. However, the rate was above that for Australia. There were markedly more people in Kalgoorlie-Boulder SLA who had type 2 diabetes and were overweight/ obese than in country Western Australia, and slightly more than in Australia.

**Figure 6: Estimates of selected chronic diseases and risk factors, Kalgoorlie/Boulder-Part A SLA, country Western Australia and Australia, 2001**



**Table 5: Estimates of selected chronic diseases and risk factors, Kalgoorlie/Boulder-Part A, country Western Australia, Western Australia and Australia, 2001**

Variable	Kalgoorlie/ Boulder-Part A SLA		Country WA		Western Australia		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>	727	22.4	11,045	25.2	38,731	21.1	397,734	20.8
Had type 2 diabetes & were overweight/ obese <sup>4</sup>	287	16.5	5,869	13.2	25,290	15.0	283,176	15.2

<sup>1</sup> No. is a weighted estimate of the number of people in Kalgoorlie/Boulder-Part A 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 3,196 admissions from ambulatory care sensitive (ACS) conditions accounted for 18.0% of all admissions in the Eastern Goldfields DGP (Table 6, Figure 7), more than twice the level in Western Australia (8.8) and Australia (8.7%).

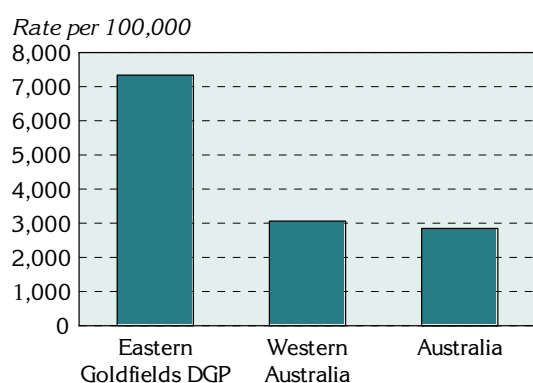
**Table 6: Avoidable<sup>1</sup> and unavoidable hospitalisations, Eastern Goldfields DGP, Western Australia, and Australia, 2001/02**

Category	Eastern Goldfields DGP			Western Australia			Australia		
	No.	Rate <sup>2</sup>	%	No.	Rate <sup>2</sup>	%	No.	Rate <sup>2</sup>	%
Avoidable <sup>1</sup>	3,196	7,335.7	18.0	55,102	3,062.4	8.8	552,786	2,847.5	8.7
Unavoidable	14,521	30,945.4	82.0	568,402	31,010.0	91.2	5,818,199	29,970.7	91.3
<b>Total</b>	<b>17,717</b>	<b>37,991.8</b>	<b>100.0</b>	<b>623,504</b>	<b>34,070.5</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>, Eastern Goldfields DGP, Western Australia and Australia, 2001/02**



The rate of avoidable hospitalisations in Eastern Goldfields DGP is also substantially higher, a rate of 7,335.7 admissions per 100,000 population, compared to both Western Australia (a rate of 3,062.4) and Australia (2,847.5).

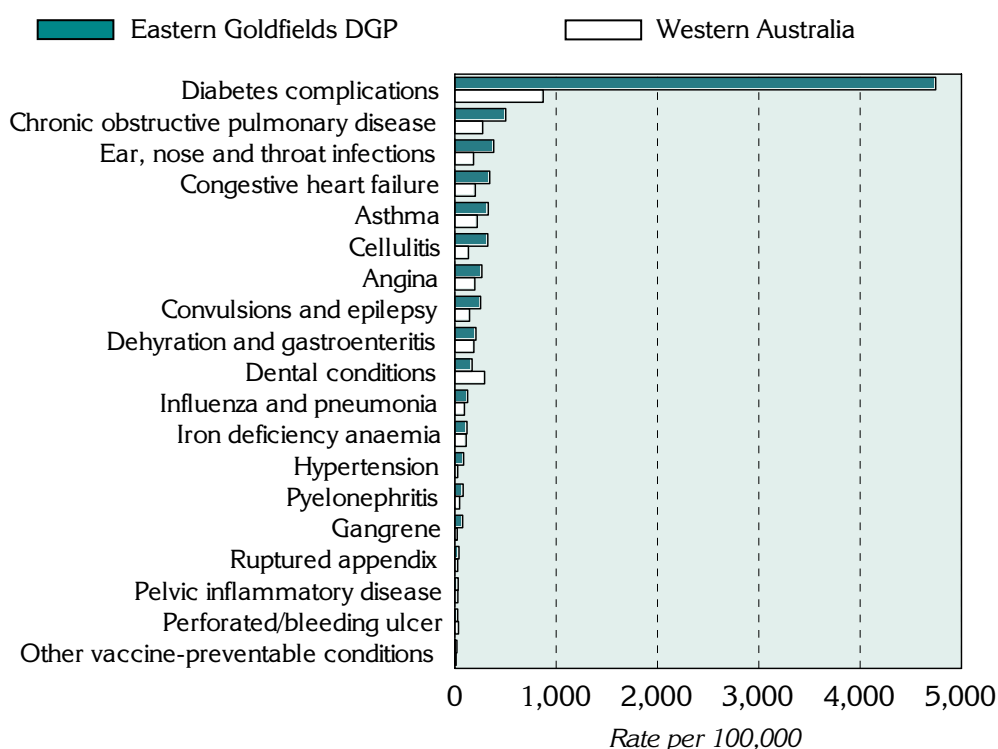
<sup>1</sup> Admissions resulting from ACS conditions

Diabetes complications; chronic obstructive pulmonary disease; and ear, nose and throat infections were the three conditions with the highest rates of avoidable hospitalisations in the Eastern Goldfields DGP (Figure 8, Table 7). The rate for diabetes complications is 5.4 times the rate in Western Australia as a whole, and 6.5 times that for Australia.

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. Over three quarters 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. Ear, nose and throat infections, and cellulitis have the highest rates of avoidable hospitalisations for the acute conditions.



**Figure 8: Avoidable hospitalisations<sup>1</sup> by condition, Eastern Goldfields DGP and Western Australia, 2001/02**



<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, Eastern Goldfields DGP, Western Australia and Australia, 2001/02**

Sub-category/ condition	Eastern Goldfields DGP		Western Australia		Australia	
	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>
<b>Vaccine-preventable</b>	<b>72</b>	<b>149.6</b>	<b>2,018</b>	<b>110.7</b>	<b>16,573</b>	<b>85.4</b>
Influenza and pneumonia	59	127.3	1,743	96.2	13,021	67.1
Other vaccine preventable	13	22.3	275	14.5	3,552	18.3
<b>Chronic<sup>3</sup></b>	<b>2,295</b>	<b>6,398.9</b>	<b>33,628</b>	<b>1,915.6</b>	<b>352,545</b>	<b>1,816</b>
Diabetes complications	1,684	4,744.9	15,323	873.6	141,345	728.1
Iron deficiency anaemia	44	120.0	2,009	113.4	16,451	84.7
Hypertension	32	88.5	510	29.0	6,354	32.7
Congestive heart failure	94	345.9	3,400	202.9	42,447	218.6
Angina	89	266.9	3,452	198.5	49,963	257.4
Chronic obstructive pulmonary disease	151	502.7	4,707	275.9	54,853	282.6
Asthma	201	330.0	4,227	222.3	41,009	211.3
<b>Acute</b>	<b>884</b>	<b>1,613.7</b>	<b>21,021</b>	<b>1,121.4</b>	<b>200,913</b>	<b>1,035</b>
Dehydration and gastroenteritis	95	209.1	3,443	188.7	37,766	194.5
Convulsions and epilepsy	152	255.2	2,779	146.7	31,137	160.4
Ear, nose and throat infections	254	385.2	3,550	185.3	32,075	165.2
Dental conditions	105	171.6	5,623	294.3	43,667	224.9
Perforated/bleeding ulcer	10	28.9	645	37.1	5,795	29.9
Ruptured appendix	24	41.5	566	29.4	3,866	19.9
Pyelonephritis	42	82.4	914	48.7	7,386	38.0
Pelvic inflammatory disease	19	34.2	577	30.2	6,547	33.7
Cellulitis	154	326.4	2,484	135.9	28,204	145.3
Gangrene	29	79.2	440	25.1	4,470	23.0
<b>Total avoidable hospitalisations<sup>4</sup></b>	<b>3,196</b>	<b>7,335.7</b>	<b>55,102</b>	<b>3,062.4</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

## 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).

Almost three quarters (74.2%) of all deaths in Eastern Goldfields DGP at ages 0 to 74 years over the period 1997 to 2001 are considered to be avoidable, higher than the proportion for country Western Australia (72.7%) (Table 8). However, the rate in the Division is markedly higher than that in country Western Australia, a differential of 1.35.

Deaths amenable to health care (amenable mortality, a subset of avoidable mortality) accounted for 24.8% of all deaths at ages 0 to 74 years in Eastern Goldfields DGP, compared to 27.6% in country Western Australia.

**Table 8: Avoidable and unavoidable mortality (0 to 74 years) by area, Eastern Goldfields DGP, country Western Australia, Western Australia and Australia, 1997 to 2001**

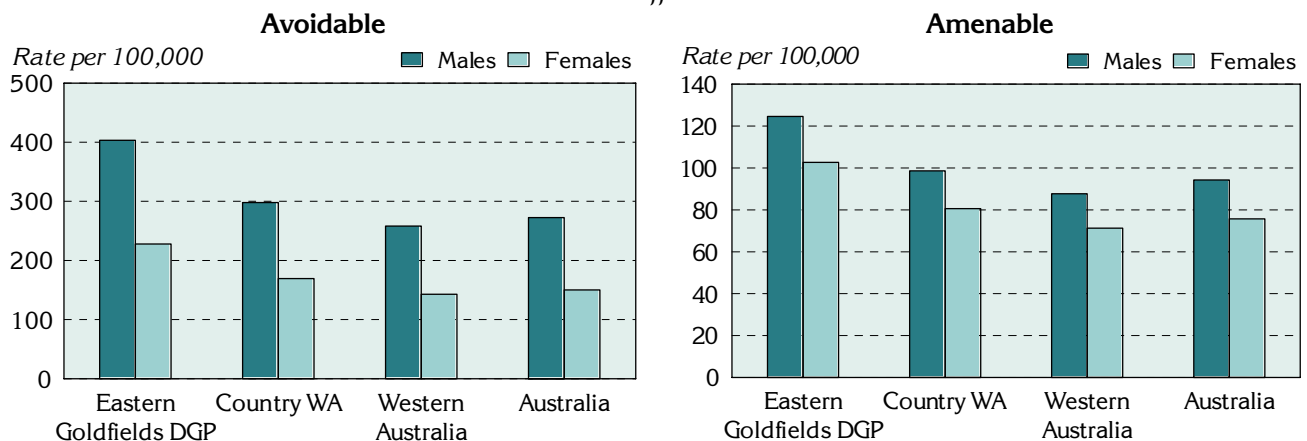
Mortality category	Eastern Goldfields DGP		Country WA		Western Australia		Australia	
	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>
Avoidable	620	315.7	5,122	233.8	16,602	201.0	189,845	211.8
% of total	74.2	..	72.7	..	71.2	..	71.5	..
(Amenable)	(207)	(113.6)	(1,943)	(89.6)	(6,517)	(79.6)	(76,249)	(85.1)
(% of total)	(24.8)	(..)	(27.6)	(..)	(28.0)	(..)	(28.7)	(..)
Unavoidable	216	114.6	1,925	88.3	6,708	81.6	75,582	84.3
% of total	25.8	..	27.3	..	28.8	..	28.5	..
<b>Total mortality</b>	<b>836</b>	<b>430.7</b>	<b>7,047</b>	<b>322.1</b>	<b>23,310</b>	<b>282.6</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. Eastern Goldfields DGP's rate of avoidable mortality for males was 403.2 deaths per 100,000 males, higher than the rate of 228.0 for females. Similarly, the rate of amenable mortality for males in the Division was higher, 124.6, compared to 102.7, for females, a rate ratio of 1.21 (Figure 9, Table 9).

**Figure 9: Avoidable and amenable mortality by sex (0 to 74 years), Eastern Goldfields DGP, country Western Australia, Western Australia and Australia, 1997 to 2001**

*Note: the different scales*



**Table 9: Avoidable and amenable mortality (0 to 74 years) by sex, Eastern Goldfields DGP, country Western Australia, Western Australia and Australia, 1997 to 2001**

Mortality category and sex	Eastern Goldfields DGP		Country WA		Western Australia		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	432	403.2	3,426	297.9	10,850	258.3	123,026	272.6
Females	188	228.0	1,696	169.3	5,752	142.9	66,819	150.1
<b>Total</b>	<b>620</b>	<b>315.7</b>	<b>5,122</b>	<b>233.8</b>	<b>16,602</b>	<b>201.0</b>	<b>189,845</b>	<b>211.8</b>
<b>Rate ratio-M:F<sup>2</sup></b>	<b>..</b>	<b>1.77**</b>	<b>..</b>	<b>1.76**</b>	<b>..</b>	<b>1.81**</b>	<b>..</b>	<b>1.82**</b>
<b>Amenable</b>								
Males	122	124.6	1,130	98.6	3,646	87.7	42,568	94.3
Females	85	102.7	813	80.6	2,871	71.3	33,681	75.7
<b>Total</b>	<b>207</b>	<b>113.6</b>	<b>1,943</b>	<b>89.6</b>	<b>6,517</b>	<b>79.6</b>	<b>76,249</b>	<b>85.1</b>
<b>Rate ratio-M:F<sup>2</sup></b>	<b>..</b>	<b>1.21</b>	<b>..</b>	<b>1.22**</b>	<b>..</b>	<b>1.23**</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 Eastern Goldfields DGP, country Western Australia, Western Australia and Australia over the period of analysis are shown in Table 10 by mortality category. However, given the substantial variation 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 74.0% of total YLL (0 to 74 years) for Eastern Goldfields DGP, marginally higher than the 73.2% for country Western Australia. The proportion of YLL from amenable mortality of 22.7% for Eastern Goldfields DGP was lower than the 26.5% for country Western Australia.

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

Mortality category	Eastern Goldfields DGP		Country WA		Western Australia		Australia	
	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Avoidable	12,396	74.0	95,572	73.2	300,008	71.7	3,327,375	71.9
(Amenable)	(3,808)	(22.7)	(34,657)	(26.5)	(113,010)	(27.0)	(1,298,430)	(28.0)
Unavoidable	4,364	26.0	35,020	26.8	118,618	28.3	1,303,289	28.1
<b>Total</b>	<b>16,760</b>	<b>100.0</b>	<b>130,592</b>	<b>100.0</b>	<b>418,625</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 2,031.6 deaths per 100,000 population in the Eastern Goldfields 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 432.8 in the Eastern Goldfields Division.

**Table 11: Avoidable and amenable mortality by age, Eastern Goldfields DGP, country Western Australia, Western Australia and Australia, 1997 to 2001**

Mortality category and age (years)	Eastern Goldfields DGP		Country WA		Western Australia		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	23	29.1	196	32.5	548	27.9	5,669	28.8
15-24	48	99.6	309	96.4	826	60.7	7,045	52.8
25-44	154	134.8	883	110.1	2,479	85.3	24,356	83.9
45-64	212	432.8	1,718	325.2	5,546	275.2	64,282	304.9
65-74	184	2,031.6	2,016	1360.4	7,203	1282.7	88,493	1,358.1
<b>Total</b>	<b>620</b>	<b>315.7</b>	<b>5,122</b>	<b>233.8</b>	<b>16,602</b>	<b>201.0</b>	<b>189,845</b>	<b>211.8</b>
<b>Amenable</b>								
0-24	17	12.5	153	15.6	454	13.8	5,083	15.4
25-44	28	26.8	223	28.3	594	20.5	5,946	20.5
45-64	83	174.1	706	135.1	2,381	118.5	27,464	130.3
65-74	80	897.1	861	585.9	3,088	550.9	37,756	579.4
<b>Total</b>	<b>207</b>	<b>113.6</b>	<b>1,943</b>	<b>89.6</b>	<b>6,517</b>	<b>79.6</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 Eastern Goldfields DGP were for cancer, with a rate of 89.9 deaths per 100,000 population, and cardiovascular diseases, 86.9 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 67.0 per 100,000 population and 30.3 per 100,000, respectively.

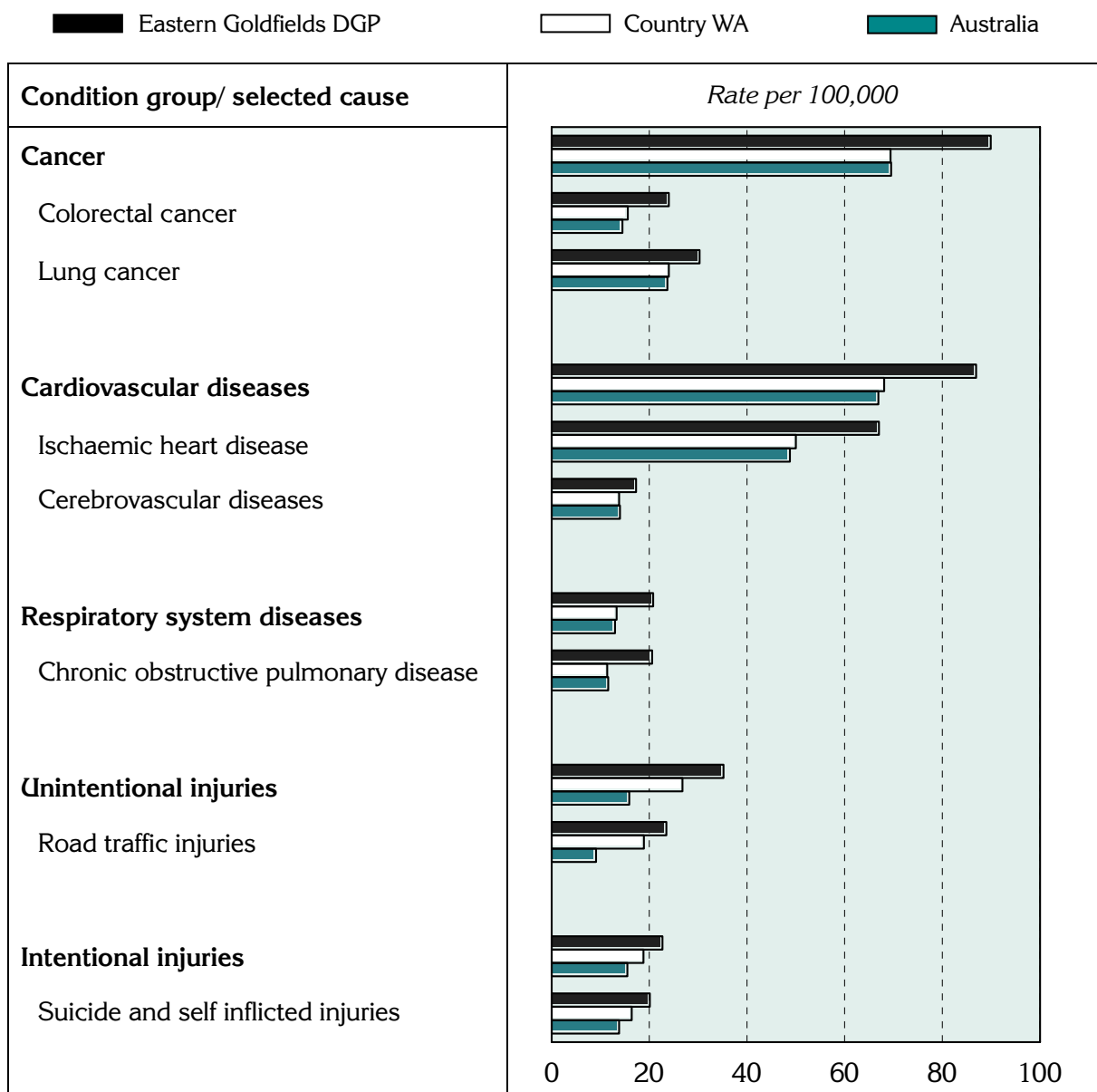
**Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Eastern Goldfields DGP, country Western Australia, Western Australia and Australia, 1997 to 2001**

Condition group/ selected cause	Eastern Goldfields DGP		Country WA		Western Australia		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>152</b>	<b>89.9</b>	<b>1,488</b>	<b>69.4</b>	<b>5,531</b>	<b>67.8</b>	<b>62,338</b>	<b>69.5</b>
Colorectal cancer	40	24.0	335	15.6	1,189	14.6	13,008	14.5
Lung cancer	49	30.3	515	24.0	1,842	22.8	21,208	23.7
<b>Cardiovascular diseases</b>	<b>142</b>	<b>86.9</b>	<b>1,456</b>	<b>68.1</b>	<b>4,750</b>	<b>58.9</b>	<b>59,945</b>	<b>66.9</b>
Ischaemic heart disease	111	67.0	1,075	50.0	3,469	42.9	43,712	48.8
Cerebrovascular diseases	27	17.3	289	13.8	1,000	12.5	12,558	14.0
<b>Respiratory system diseases</b>	<b>31</b>	<b>20.8</b>	<b>278</b>	<b>13.3</b>	<b>871</b>	<b>11.0</b>	<b>11,612</b>	<b>13.0</b>
Chronic obstructive pulmonary disease	29	20.6	238	11.4	748	9.5	10,395	11.6
<b>Unintentional injuries</b>	<b>107</b>	<b>35.2</b>	<b>626</b>	<b>26.8</b>	<b>1,549</b>	<b>17.5</b>	<b>14,224</b>	<b>15.9</b>
Road traffic injuries	71	23.5	439	18.9	918	10.3	8,138	9.1
<b>Intentional injuries</b>	<b>71</b>	<b>22.7</b>	<b>444</b>	<b>18.8</b>	<b>1,412</b>	<b>15.9</b>	<b>13,891</b>	<b>15.5</b>
Suicide and self inflicted injuries	63	20.1	386	16.4	1,270	14.3	12,393	13.8

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

Rates in the Division for all of the condition groups and selected causes were above the rates for Western Australia and Australia (Figure 10).

**Figure 10: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Eastern Goldfields DGP, country Western Australia and Australia, 1997 to 2001**



# Notes on the data

## Data sources and limitations

### General

References to 'country Western Australia' relate to Western Australia excluding the Perth 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 Eastern Goldfields 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, SLAs are equivalent to local government areas (LGAs), with the exception of the Kalgoorlie/Boulder LGA, which has been split into two SLAs, Part A and Part B (all of which are in the Division). These SLAs and all or part of other SLAs listed in Table 14 comprise the Division.

**Table 14: SLAs and population in Eastern Goldfields 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
51960	Coolgardie	100.0	3,744
53080	Dundas	100.0	1,070
53290	Esperance	100.0	13,265
54281	Kalgoorlie/Boulder - Part A	100.0	28,850
54284	Kalgoorlie/Boulder - Part B	100.0	249
54970	Laverton	100.0	1,205
55040	Leonora	100.0	1,861
55390	Menzies	100.0	361
56620	Ngaanyatjarraku	100.0	1,715
56620	Ravensthorpe	8.7	117
59250	Wiluna	100.0	960
59660	Yilgarn	86.8	1,346

\* 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:**

Phone: 08-8303 6236 or e-mail: [PHIDU@publichealth.gov.au](mailto:PHIDU@publichealth.gov.au)