

Population health profile of the Perth and Hills

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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Population health profile

of the Perth and Hills Division of General Practice: supplement

This profile is a supplement to the *Population health profile of the Perth and Hills Division of General Practice*, dated November 2005, available from www.publichealth.gov.au. This supplement includes an update of the population of the Perth and Hills 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:

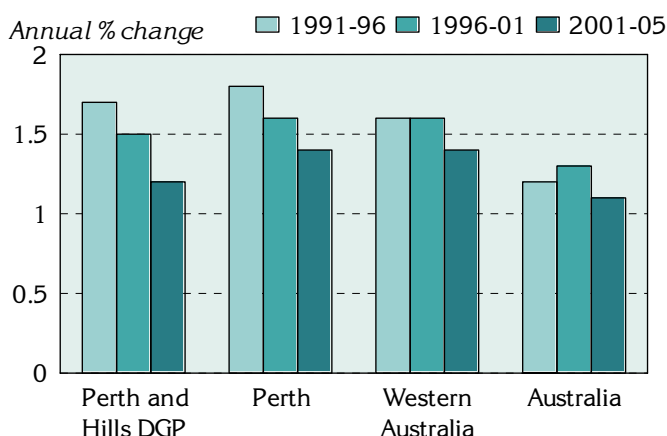
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances – patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive 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 Perth and Hills Division had an Estimated Resident Population of 324,578 at 30 June 2005.

Figure 1: Annual population change, Perth and Hills DGP, Perth, Western Australia and Australia, 1991 to 1996, 1996 to 2001 and 2001 to 2005



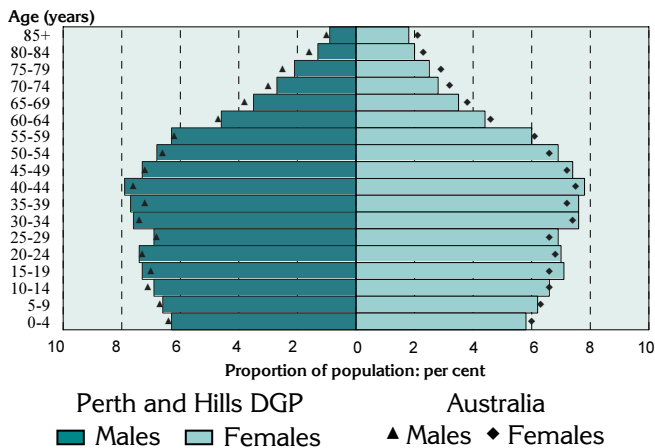
Over the five years from 1991 to 1996, the Division's population increased by 1.7% on average each year, between the increases for Perth (1.8%) and Western Australia as a whole (1.6%). From 1996 to 2001, the annual growth in the Division was 1.5%, marginally lower than in Perth and Western Australia (1.6%). The Division's growth rate from 2001 to 2005 (1.2%) was slightly lower than the annual increases for Perth and Western Australia (both 1.4%).

Table 1: Population by age, Perth and Hills DGP and Australia, 2005

Age group (years)	Perth and Hills DGP		Australia	
	No.	%	No.	%
0-14	62,339	19.2	3,978,221	19.6
15-24	46,648	14.4	2,819,834	13.9
25-44	97,387	30.0	5,878,107	28.9
45-64	80,545	24.8	4,984,446	24.5
65-74	20,450	6.3	1,398,831	6.9
75-84	12,829	4.0	954,143	4.7
85+	4,380	1.3	315,027	1.5
Total	324,578	100.0	20,328,609	100.0

As shown in the accompanying table and the age-sex pyramid (Figure 2), the Perth and Hills DGP had a slightly higher proportion of the population in the age groups from 15 to 64 years compared to Australia as a whole (Table 1). Conversely, the proportions of the Division's population aged 65 years and over were slightly lower compared to Australia.

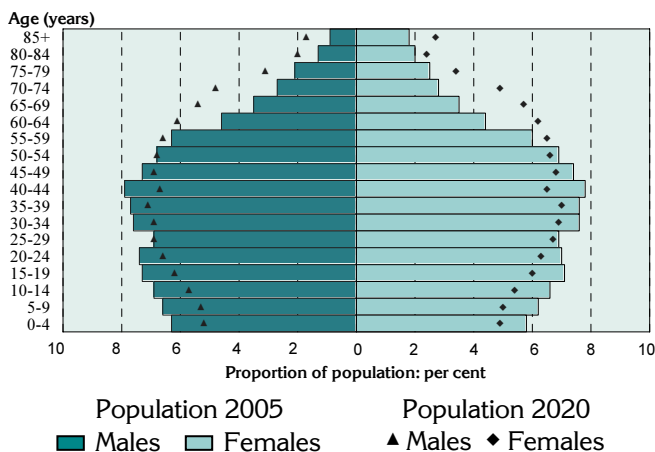
Figure 2: Population in Perth and Hills DGP and Australia, by age and sex, 2005



The age distribution of the Division's population is similar to that for Australia overall. The most notable differences are:

- at younger ages – marginally fewer male children aged 0 to 14 years and female children (aged 0 to 4 years);
- from 15 to 54 years – slightly higher proportions of females and males (other than at ages 25 to 29 years); and
- at older ages – slightly fewer people in all age groups from age 60.

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



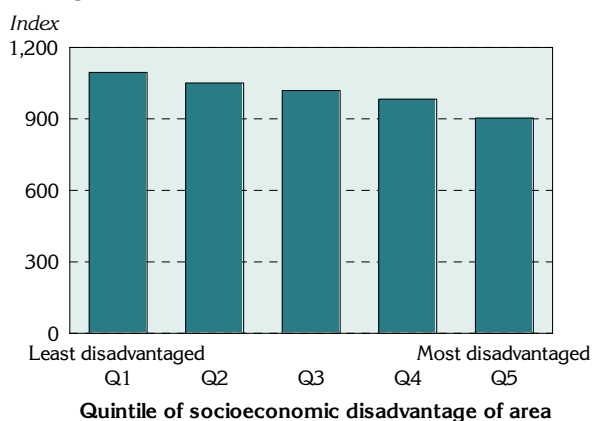
The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- at younger ages – relatively fewer children, young people and young adults, aged 0 to 24 years;
- from 25 to 54 years – relatively fewer females and males (from 30 to 49 years); and
- from 55 years onwards – relatively more males and females.

Additional socio-demographic indicators

Please refer to the earlier *Population health profile of the Perth and Hills 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, Perth and Hills DGP, 2001



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

The Perth and Hills DGP has an index score of 1010, above the score for Australia of 1000: this score varies across the Division, from a low of 903 in the most disadvantaged areas to 1095 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 slightly more jobless families in the Perth and Hills DGP (17.1%), compared to Perth as a whole (16.5%) (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 people with private health insurance (40.5%), compared to Perth (42.7%) (Figure 5, Table 2).

Figure 5: Socio-demographic indicators, Perth and Hills DGP, Perth, Western Australia and Australia, 2001

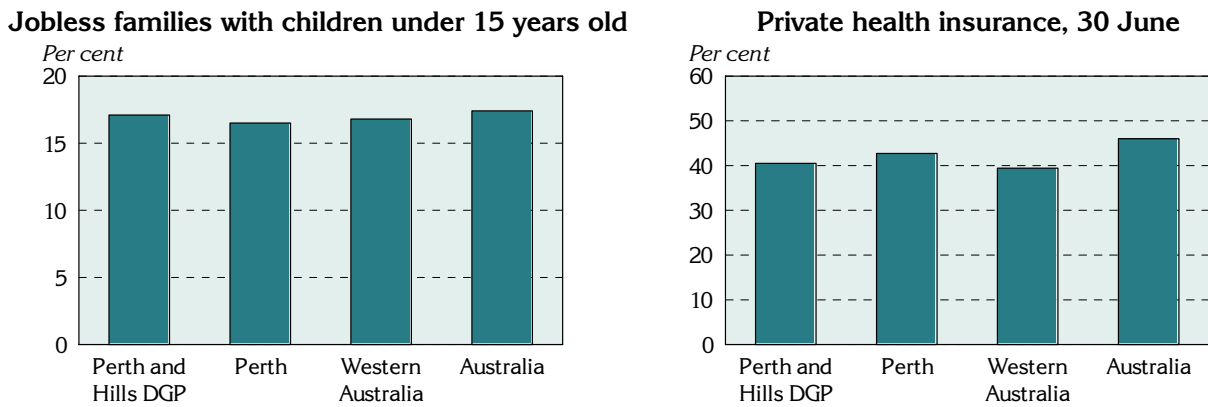
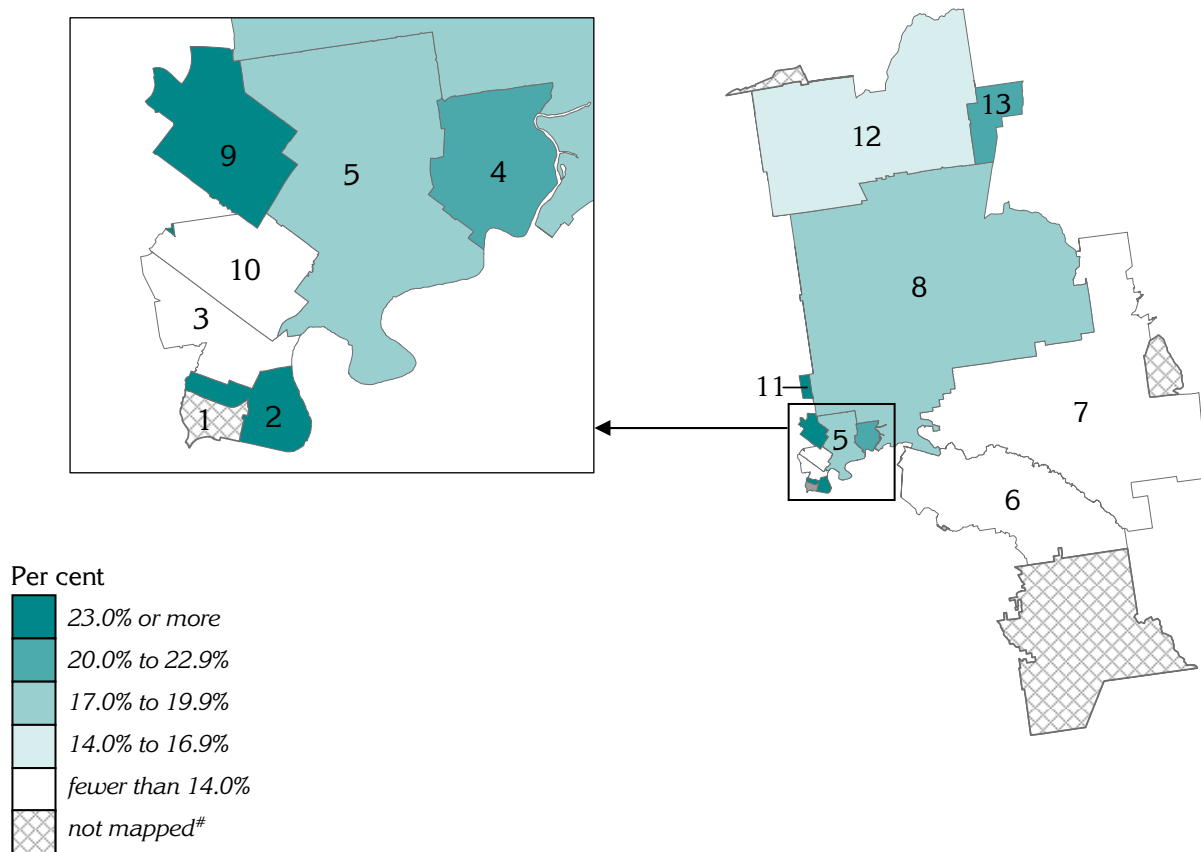


Table 2: Socio-demographic indicators, Perth and Hills DGP, Perth, Western Australia and Australia, 2001

Indicator	Perth and Hills DGP		Perth		Western Australia		Australia	
	No.	%	No.	%	No.	%	No.	%
Jobless families with children under 15 years old	5,605	17.1	24,254	16.5	34,396	16.8	357,563	17.4
Private health insurance (30 June)	113,789	40.5	559,922	42.7	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.

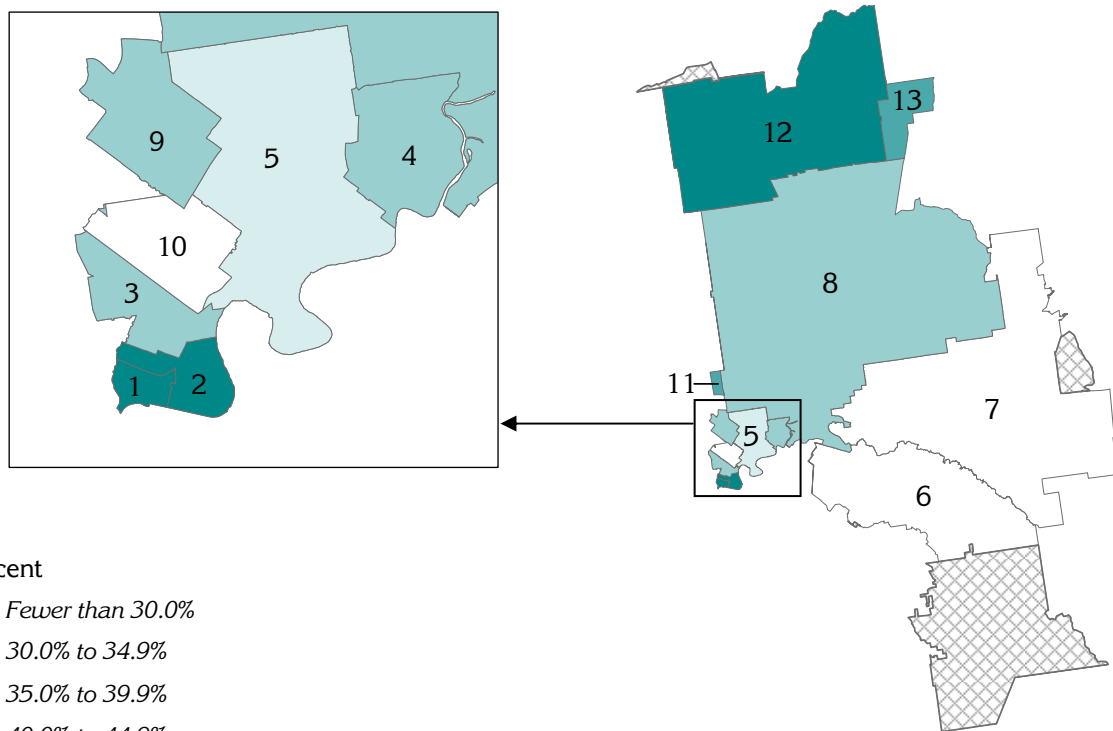
Map 1: Jobless families with children under 15 years of age by SLA, Perth and Hills DGP, 2001



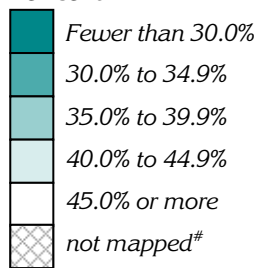
data were not mapped: see 'Mapping' note under Methods

For map labels: see next page

Map 2: People covered by private health insurance by SLA, Perth and Hills DGP, 30 June 2001



Per cent



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

Alphabetical key to Statistical Local Areas, Perth & Hills DGP, 2001

Bassendean	4	Stirling - Central	9
Bayswater	5	Stirling - South-Eastern	10
Chittering	12	Swan	8
Kalamunda	6	Toodyay	13
Mundaring	7	Vincent	3
Perth - Inner	1	Wanneroo - South	11
Perth - Remainder	2		

GP services to residents of the Perth and Hills 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 unreferral attendances recorded under Medicare: unreferral 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.

Just over three quarters (77.8%) of all unreferral attendances to residents of Perth and Hills DGP were provided in the Division (ie. by a GP with a provider number in the Division): this represented 1,145,463 GP unreferral attendances (Table 3). A further 9.8% of unreferral attendances to residents were provided by GPs with a provider number in Osborne DGP, with 5.3% provided by GPs in GP Coastal DGP.

Table 3: Patient flow – People living¹ in Perth and Hills DGP by Division where attendance occurred², 2003/04

Division		Unreferral attendances	
Number	Name	No.	% ³
601	Perth & Hills DGP	1,145,463	77.8
603	Osborne DGP	143,975	9.8
602	GP Coastal DGP	77,808	5.3
604	Canning DGP	53,901	3.7
605	Fremantle Regional DGP	15,301	1.0
Other	..	35,592	2.4
Total	..	1,472,040	100.0

¹ Based on address in Medicare records

² Division of GP based on provider number

³ Proportion of all unreferral attendances of patients with an address in Division 601 by Division in which attendance occurred

Just over three quarters (76.7%) of unreferral attendances provided by GPs with a provider number in Perth and Hills DGP were also to people living in the Division (ie. their Medicare address was in the Division) (Table 4). A further 8.5% of unreferral attendances by GPs in the Division were to people living in Osborne DGP, and 6.1% to people living in Canning DGP.

Table 4: GP catchment – Unreferral attendances provided by GPs¹ in Perth and Hills DGP by Division of patient address², 2003/04

Division		Unreferral attendances	
Number	Name	No.	% ³
601	Perth & Hills DGP	1,145,463	76.7
603	Osborne DGP	127,334	8.5
604	Canning DGP	90,320	6.1
602	GP Coastal DGP	39,061	2.6
605	Fremantle Regional DGP	29,493	2.0
Other	..	60,907	4.1
Total	..	1,492,578	100.0

¹ Division of GP based on provider number

² Based on address in Medicare records

³ Proportion of all unreferral attendances to GPs with a provider number in Division 601 by Division of patient address

Additional prevalence estimates: chronic diseases and risk factors combined

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

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

It is estimated that there similar numbers of people in Perth and Hills DGP who had asthma and were smokers, compared to Australia, and slightly more than in Perth (Figure 6, Table 5): that is, the prevalence rates per 1,000 population were slightly higher than those in Perth. There was a marginally higher rate of people in Perth and Hills DGP who had type 2 diabetes and were overweight/ obese, compared to Perth or Australia.

Figure 6: Estimates of selected chronic diseases and risk factors, Perth and Hills DGP, Perth and Australia, 2001

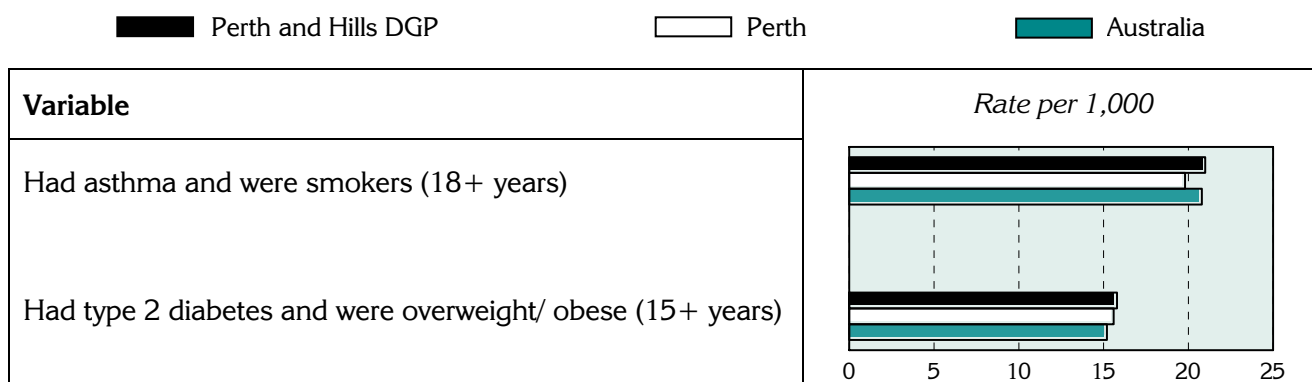


Table 5: Estimates of selected chronic diseases and risk factors, Perth and Hills DGP, Perth, Western Australia and Australia, 2001

Variable	Perth and Hills DGP		Perth		Western Australia		Australia	
	No. ¹	Rate ²	No. ¹	Rate ²	No. ¹	Rate ²	No. ¹	Rate ¹
Had asthma & smoked ³	6,570	21.0	27,686	19.8	38,731	21.1	397,734	20.8
Had type 2 diabetes & were overweight/ obese ⁴	4,401	15.8	19,421	15.6	25,290	15.0	283,176	15.2

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

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

³ Population aged 18 years and over

⁴ Population aged 15 years and over

Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive conditions

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

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

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

In 2001 to 2002, the 7,688 admissions from ambulatory care sensitive (ACS) conditions accounted for 7.6% of all admissions in the Perth and Hills DGP (Table 6, Figure 7), notably lower than the levels Western Australia (8.8) and Australia (8.7%).

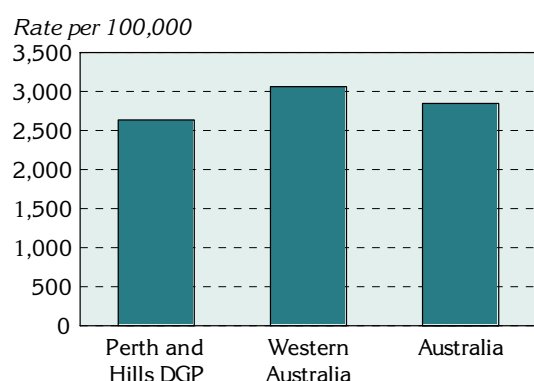
Table 6: Avoidable¹ and unavoidable hospitalisations, Perth and Hills DGP, Western Australia, and Australia, 2001/02

Category	Perth and Hills DGP			Western Australia			Australia		
	No.	Rate ²	%	No.	Rate ²	%	No.	Rate ²	%
Avoidable ¹	7,688	2,635.7	7.6	55,102	3,062.4	8.8	552,786	2,847.5	8.7
Unavoidable	93,642	31,353.1	92.4	568,402	31,010.0	91.2	5,818,199	29,970.7	91.3
Total	101,331	33,996.1	100.0	623,504	34,070.5	100.0	6,370,985	32,818.2	100.0

¹ Admissions resulting from ACS conditions

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

Figure 7: Avoidable hospitalisations¹, Perth and Hills DGP, Western Australia and Australia, 2001/02



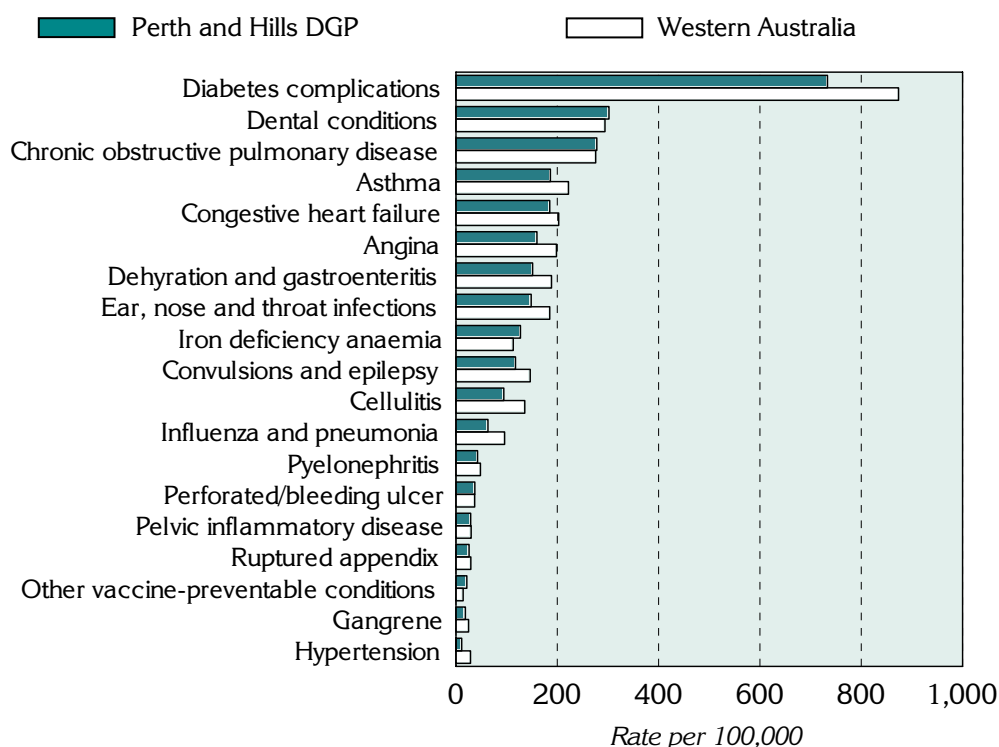
The rate of avoidable hospitalisations in Perth and Hills DGP is notably lower, a rate of 2,635.7 admissions per 100,000 population, compared to both Western Australia (a rate of 3,062.4) and Australia (2,847.5).

¹ Admissions resulting from ACS conditions

Diabetes complications, dental conditions, chronic obstructive pulmonary disease, asthma and congestive heart failure were the five conditions with the highest rates of avoidable hospitalisations in the Perth and Hills 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, dehydration and gastroenteritis, have the highest rates of avoidable hospitalisations for the acute conditions.

Figure 8: Avoidable hospitalisations¹ by condition, Perth and Hills DGP and Western Australia, 2001/02



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

Table 7: Avoidable hospitalisations¹ by condition, Perth and Hills DGP, Western Australia and Australia, 2001/02

Sub-category/ condition	Perth and Hills DGP		Western Australia		Australia	
	No.	Rate ²	No.	Rate ²	No.	Rate ²
Vaccine-preventable	254	85.3	2,018	110.7	16,573	85.4
Influenza and pneumonia	187	63.5	1,743	96.2	13,021	67.1
Other vaccine preventable	67	21.8	275	14.5	3,552	18.3
Chronic³	4,787	1,682.3	33,628	1,915.6	352,545	1,816
Diabetes complications	2,086	733.2	15,323	873.6	141,345	728.1
Iron deficiency anaemia	369	127.6	2,009	113.4	16,451	84.7
Hypertension	33	11.5	510	29.0	6,354	32.7
Congestive heart failure	509	185.2	3,400	202.9	42,447	218.6
Angina	452	160.0	3,452	198.5	49,963	257.4
Chronic obstructive pulmonary disease	769	278.2	4,707	275.9	54,853	282.6
Asthma	569	186.6	4,227	222.3	41,009	211.3
Acute	2,942	969.2	21,021	1,121.4	200,913	1,035
Dehydration and gastroenteritis	452	151.4	3,443	188.7	37,766	194.5
Convulsions and epilepsy	361	117.8	2,779	146.7	31,137	160.4
Ear, nose and throat infections	455	148.6	3,550	185.3	32,075	165.2
Dental conditions	927	302.1	5,623	294.3	43,667	224.9
Perforated/bleeding ulcer	106	37.5	645	37.1	5,795	29.9
Ruptured appendix	81	26.1	566	29.4	3,866	19.9
Pyelonephritis	132	43.0	914	48.7	7,386	38.0
Pelvic inflammatory disease	93	29.3	577	30.2	6,547	33.7
Cellulitis	282	94.7	2,484	135.9	28,204	145.3
Gangrene	53	18.7	440	25.1	4,470	23.0
Total avoidable hospitalisations⁴	7,688	2,635.7	55,102	3,062.4	552,786	2,847.5

¹ Admissions resulting from ACS conditions

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

³ Excludes nutritional deficiencies as less than ten admissions

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

Avoidable mortality

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

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

Over two thirds (71.9%) of all deaths in Perth and Hills DGP at ages 0 to 74 years over the period 1997 to 2001 are considered to be avoidable, slightly higher than the proportion for Perth (70.6%) (Table 8). However, the rate in the Division is notably higher than that in Perth, a differential of 1.11.

Deaths amenable to health care (amenable mortality, a subset of avoidable mortality) accounted for 28.3% of all deaths at ages 0 to 74 years in Perth and Hills DGP, compared to 28.1% in Perth.

Table 8: Avoidable and unavoidable mortality (0 to 74 years) by area, Perth and Hills DGP, Perth, Western Australia and Australia, 1997 to 2001

Mortality category	Perth and Hills DGP		Perth		Western Australia		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable	2,797	210.0	11,480	189.1	16,602	201.0	189,845	211.8
% of total	71.9	..	70.6	..	71.2	..	71.5	..
(Amenable)	(1,102)	(83.6)	(4,574)	(75.9)	(6,517)	(79.6)	(76,249)	(85.1)
(% of total)	(28.3)	(..)	(28.1)	(..)	(28.0)	(..)	(28.7)	(..)
Unavoidable	1,096	82.9	4,783	79.3	6,708	81.6	75,582	84.3
% of total	28.2	..	29.4	..	28.8	..	28.5	..
Total mortality	3,892	292.9	16,263	268.4	23,310	282.6	265,427	296.1
%	100.0	..	100.0	..	100.0	..	100.0	..

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

Rates of avoidable mortality were higher for males than for females in each of the comparator areas. Perth and Hills DGP's rate of avoidable mortality for males was 270.3 deaths per 100,000 males, higher than the rate of 148.8 for females. Similarly, the rate of amenable mortality for males in the Division was higher, 91.4, compared to 75.7 for females, a rate ratio of 1.21 (Figure 9, Table 9).

Figure 9: Avoidable and amenable mortality by sex (0 to 74 years), Perth and Hills DGP, Perth, Western Australia and Australia, 1997 to 2001

Note: the different scales

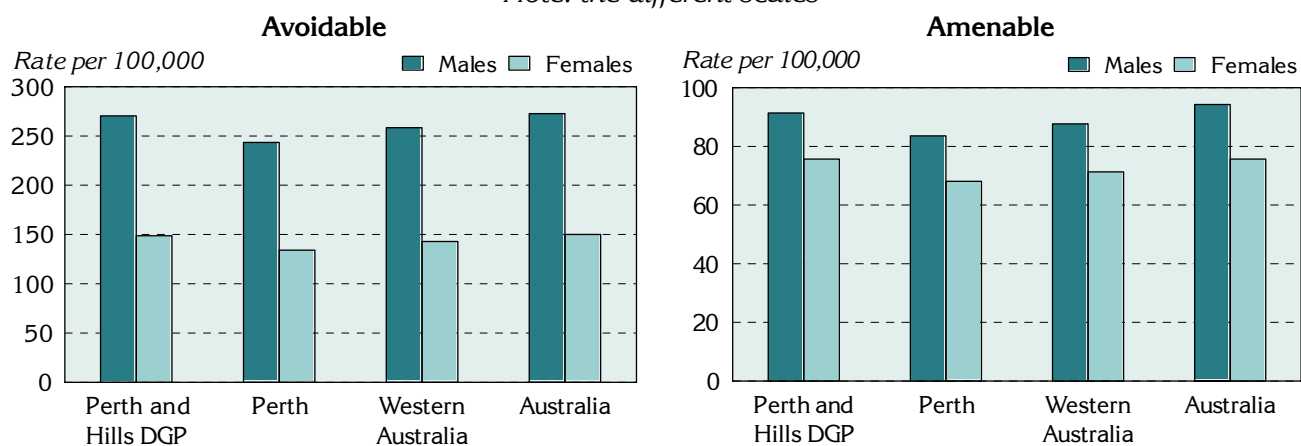


Table 9: Avoidable and amenable mortality (0 to 74 years) by sex, Perth and Hills DGP, Perth, Western Australia and Australia, 1997 to 2001

Mortality category and sex	Perth and Hills DGP		Perth		Western Australia		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable								
Males	1,830	270.3	7,424	243.4	10,850	258.3	123,026	272.6
Females	967	148.8	4,056	134.1	5,752	142.9	66,819	150.1
Total	2,797	210.0	11,480	189.1	16,602	201.0	189,845	211.8
Rate ratio–M:F²	..	1.82**	..	1.82**	..	1.81**	..	1.82**
Amenable								
Males	610	91.4	2,516	83.6	3,646	87.7	42,568	94.3
Females	492	75.7	2,058	68.1	2,871	71.3	33,681	75.7
Total	1,102	83.6	4,574	75.9	6,517	79.6	76,249	85.1
Rate ratio–M:F²	..	1.21**	..	1.23**	..	1.23**	..	1.25**

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

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

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

The numbers of YLL for Perth and Hills DGP, Perth, 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 71.9% of total YLL (0 to 74 years) for Perth and Hills DGP, higher than the 71.0% for Perth. The proportion of YLL from amenable mortality of 27.2% for Perth and Hills DGP was consistent with the 27.2% for Perth.

Table 10: Years of life lost from avoidable mortality (0 to 74 years), Perth and Hills DGP, Perth, Western Australia and Australia, 1997 to 2001

Mortality category	Perth and Hills DGP		Perth		Western Australia		Australia	
	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Avoidable	49,783	71.9	204,435	71.0	300,008	71.7	3,327,375	71.9
(Amenable)	(18,810)	(27.2)	(78,352)	(27.2)	(113,010)	(27.0)	(1,298,430)	(28.0)
Unavoidable	19,496	28.1	83,597	29.0	118,618	28.3	1,303,289	28.1
Total	69,279	100.0	288,033	100.0	418,625	100.0	4,630,664	100.0

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

In each of the areas in Table 11, the majority of avoidable mortality at ages 0 to 74 years occurred in the 65 to 74 year age group (Table 11), with 1,390.8 deaths per 100,000 population in the Perth and Hills 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 292.1 in the Perth and Hills Division.

Table 11: Avoidable and amenable mortality by age, Perth and Hills DGP, Perth, Western Australia and Australia, 1997 to 2001

Mortality category and age (years)	Perth and Hills DGP		Perth		Western Australia		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable								
0-14	74	23.9	352	25.9	548	27.9	5,669	28.8
15-24	118	53.8	517	49.7	826	60.7	7,045	52.8
25-44	405	84.3	1,596	75.9	2,479	85.3	24,356	83.9
45-64	955	292.1	3,828	257.4	5,546	275.2	64,282	304.9
65-74	1,245	1,390.8	5,187	1254.8	7,203	1282.7	88,493	1,358.1
Total	2,797	210.0	11,480	189.1	16,602	201.0	189,845	211.8
Amenable								
0-24	61	11.7	301	13.0	454	13.8	5,083	15.4
25-44	95	19.9	371	17.6	594	20.5	5,946	20.5
45-64	414	126.8	1,675	112.7	2,381	118.5	27,464	130.3
65-74	532	595.7	2,228	538.5	3,088	550.9	37,756	579.4
Total	1,102	83.6	4,574	75.9	6,517	79.6	76,249	85.1

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

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

The highest rates of avoidable mortality for the selected major condition groups in the Perth and Hills DGP were for cancer, with a rate of 71.2 deaths per 100,000 population, and cardiovascular diseases, 63.9 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 46.3 per 100,000 population and 23.3 per 100,000, respectively.

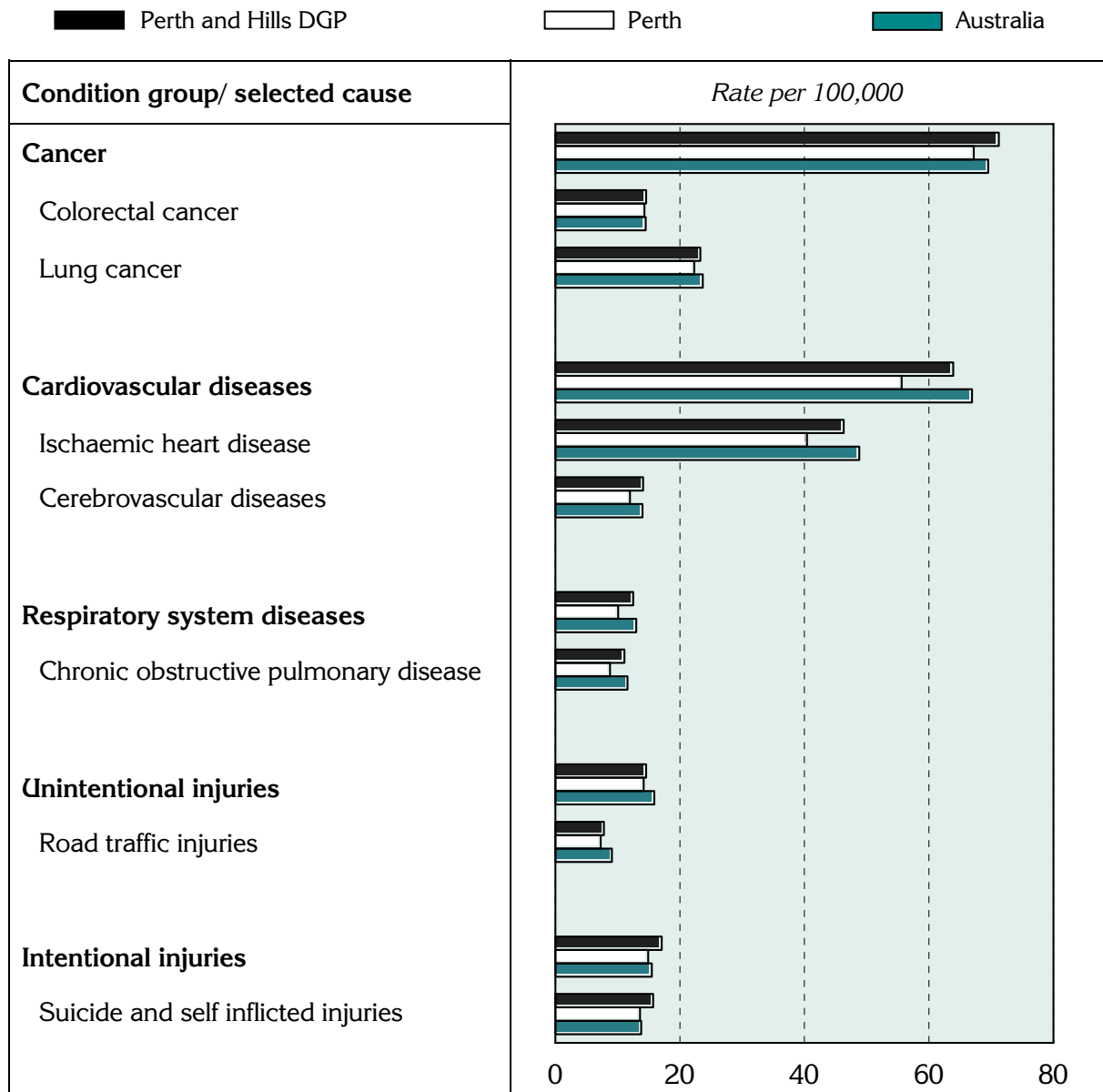
Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Perth and Hills DGP, Perth, Western Australia and Australia, 1997 to 2001

Condition group/ selected cause	Perth and Hills DGP		Perth		Western Australia		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Cancer	936	71.2	4,043	67.2	5,531	67.8	62,338	69.5
Colorectal cancer	192	14.6	854	14.3	1,189	14.6	13,008	14.5
Lung cancer	302	23.3	1,327	22.3	1,842	22.8	21,208	23.7
Cardiovascular diseases	827	63.9	3,294	55.6	4,750	58.9	59,945	66.9
Ischaemic heart disease	601	46.3	2,394	40.4	3,469	42.9	43,712	48.8
Cerebrovascular diseases	181	14.1	711	12.0	1,000	12.5	12,558	14.0
Respiratory system diseases	159	12.5	593	10.1	871	11.0	11,612	13.0
Chronic obstructive pulmonary disease	140	11.1	510	8.8	748	9.5	10,395	11.6
Unintentional injuries	210	14.6	923	14.2	1,549	17.5	14,224	15.9
Road traffic injuries	113	7.8	479	7.3	918	10.3	8,138	9.1
Intentional injuries	248	17.1	968	14.9	1,412	15.9	13,891	15.5
Suicide and self inflicted injuries	228	15.7	884	13.6	1,270	14.3	12,393	13.8

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

Rates in the Division were above those for Perth for all condition groups and selected causes; and above or consistent with the Australian rates, other than for cardiovascular diseases, ischaemic heart disease and the unintentional injuries group (Figure 10).

Figure 10: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Perth and Hills DGP, Perth and Australia, 1997 to 2001



Notes on the data

Data sources and limitations

General

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

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

Methods

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

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

Mapping

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

Statistical geography of the Perth and Hills DGP

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

Statistical Local Areas (SLAs) are defined by the Australian Bureau of Statistics to produce areas for the presentation and analysis of data. In this Division, some Local Government Areas (LGAs) have been split into SLAs. For example, the LGA of Stirling has two SLAs, Central (17% of which is estimated to be in this Division) and South-Eastern (wholly in the Division). These SLAs, and all or parts of the SLAs listed in Table 14 comprise the Division.

Table 14: SLAs and population in Perth and Hills 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
50350	Bassendean	100.0	14,029
50420	Bayswater	100.0	56,177
51680	Chittering	63.7	2,245
54200	Kalamunda	97.8	50,219
56090	Mundaring	100.0	35,718
57081	Perth - Inner	100.0	1,361
57082	Perth - Remainder	66.9	7,003
57914	Stirling - Central	21.5	21,862
57916	Stirling - South-Eastern	100.0	16,080
58050	Swan	100.0	93,652
58330	Toodyay	21.0	908
58570	Vincent	60.5	16,195
58767	Wanneroo - South	21.8	9,129

* 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

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Further developments and updates

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

PHIDU contact details

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