

Population health profile of the Dubbo/Plains

Division of General Practice: supplement

Population Profile Series: No. 28a

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Bibliography.

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1. Public health - New South Wales - Dubbo Region - Statistics. 2. Health status indicators - New South Wales - Dubbo Region - Statistics. 3. Health service areas - New South Wales - Dubbo Region. 4. Dubbo Region (N.S.W.) - Statistics, Medical. I. Public Health Information Development Unit (Australia). (Series : Population profile series ; no. 28a).

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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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This publication, the maps and supporting data, together with other publications on population health, are available from the PHIDU website (www.publichealth.gov.au).

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Population health profile

of the Dubbo/Plains Division of General Practice: supplement

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

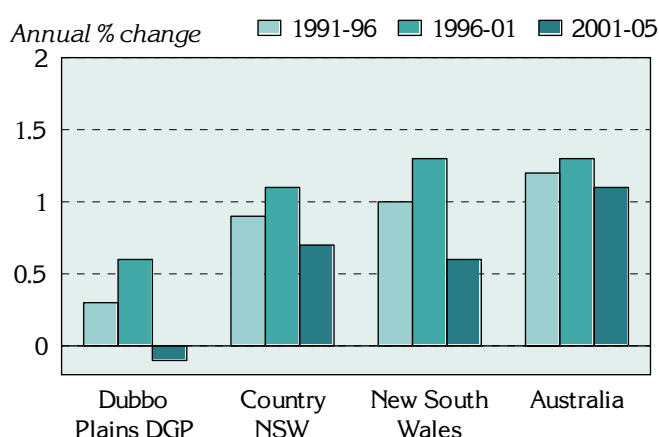
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances – patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive 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 Dubbo/Plains Division had an Estimated Resident Population of 101,289 at 30 June 2005.

Figure 1: Annual population change, Dubbo/Plains DGP, country New South Wales, New South Wales and Australia, 1991 to 1996, 1996 to 2001 and 2001 to 2005



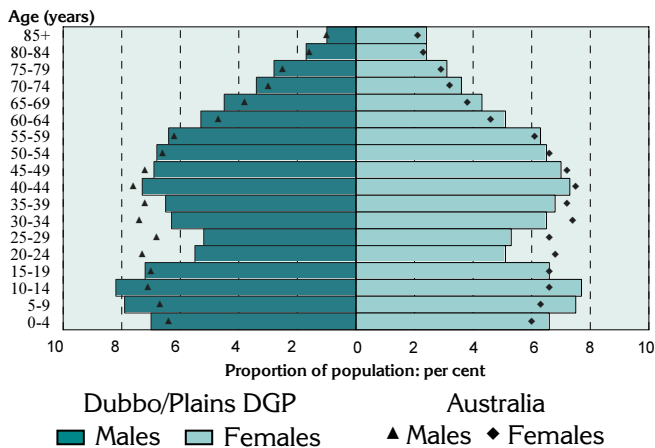
Over the five years from 1991 to 1996, the Division's population increased by 0.3% on average each year, lower than for country New South Wales (0.9%), New South Wales (1.0%), and Australia (1.2%). From 1996 to 2001, the annual percentage increase was 0.6%, lower than for country New South Wales (1.2%) and New South Wales (1.3%). The population decreased by 0.1% per annum from 2001 to 2005, compared with growth in country New South Wales (0.7%), New South Wales (0.6%), and Australia (1.1%).

Table 1: Population by age, Dubbo/Plains DGP and Australia, 2005

Age group (years)	Dubbo/Plains DGP		Australia	
	No.	%	No.	%
0-14	22,690	22.4	3,978,221	19.6
15-24	12,349	12.2	2,819,834	13.9
25-44	25,986	25.7	5,878,107	28.9
45-64	25,445	25.1	4,984,446	24.5
65-74	8,044	7.9	1,398,831	6.9
75-84	5,042	5.0	954,143	4.7
85+	1,733	1.7	315,027	1.5
Total	101,289	100.0	20,328,609	100.0

As shown in the accompanying table and the age-sex pyramid below (Figure 2), Dubbo/Plains DGP had a higher proportion of its population aged 0 to 14 years (22.4%) compared to Australia (19.6%) and a lower proportion aged 25 to 44 years (25.7%) compared to Australia (28.9%). Conversely, the 65 years and over age groups had higher proportions compared to Australia as a whole.

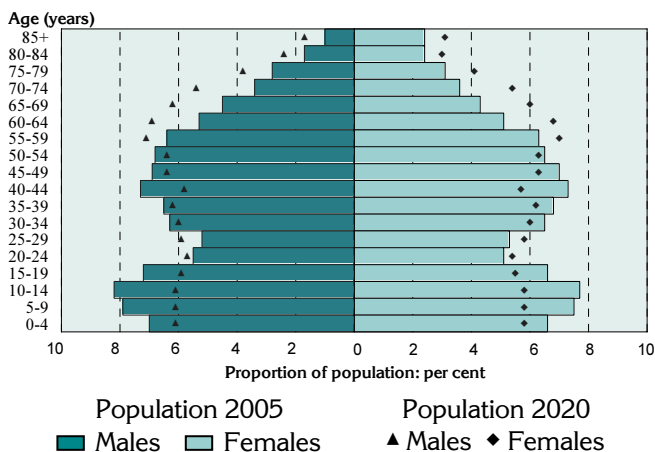
Figure 2: Population in Dubbo/Plains DGP and Australia, by age and sex, 2005



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

- at younger ages – higher proportions of the population at ages 0 to 14 years;
- from 20 to 49 years – substantially lower proportions (perhaps with people moving away to continue education, or to seek employment opportunities); and
- at 55 to 79 years – relatively more males and females, and more females ages 85+ years.

Figure 3: Population projections for Dubbo/Plains DGP, by age and sex, 2005 and 2020



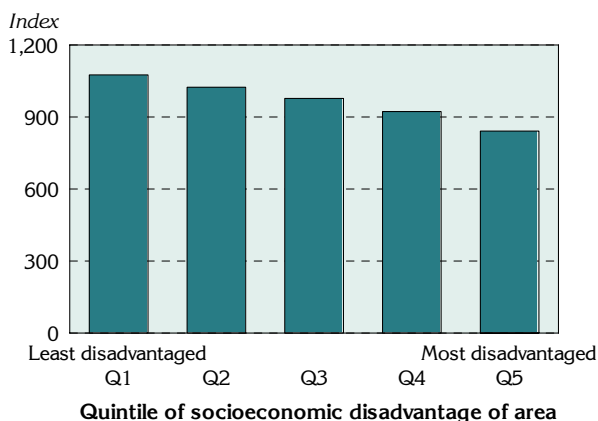
The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- at younger ages – generally much lower proportions of the population at ages 0 to 19 years;
- from 30 to 54 years – lower proportions of both males and females; and
- from age 55 years – relatively more males and females (most pronounced at ages 60 to 74 years, and for the 85+ age group).

Additional socio-demographic indicators

Please refer to the earlier *Population health profile of the Dubbo/Plains 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, Dubbo/Plains DGP, 2001



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

The Dubbo/Plains DGP has an index score of 968, below the score for Australia of 1000: this score varies widely across the Division, from a low of 841 in the most disadvantaged areas to 1075 in the least disadvantaged areas.

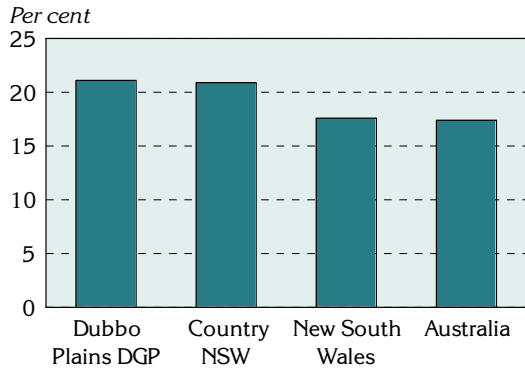
Note: each 'quintile' comprises approximately 20% of the population of the Division.

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. The proportion of jobless families in the Dubbo/Plains DGP (21.1%) was consistent with that for country New South Wales as a whole (20.9%), (Figure 5, Table 2).

With the introduction of the 30% rebate for private health insurance premiums, there was a once-off registration process, providing information of the postcode and residence of those who had such insurance (these data are not available at this area level for later dates). In 2001, the Division had a similar proportion of the population with private health insurance (44.6%), compared to country New South Wales (44.9%) (Figure 5, Table 2).

Figure 5: Socio-demographic indicators, Dubbo/Plains DGP, country New South Wales, New South Wales and Australia, 2001

Jobless families with children under 15 years old



Private health insurance, 30 June

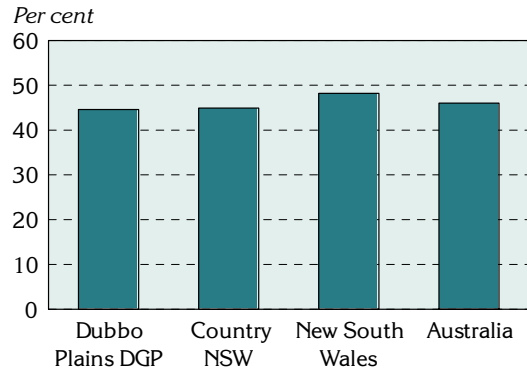
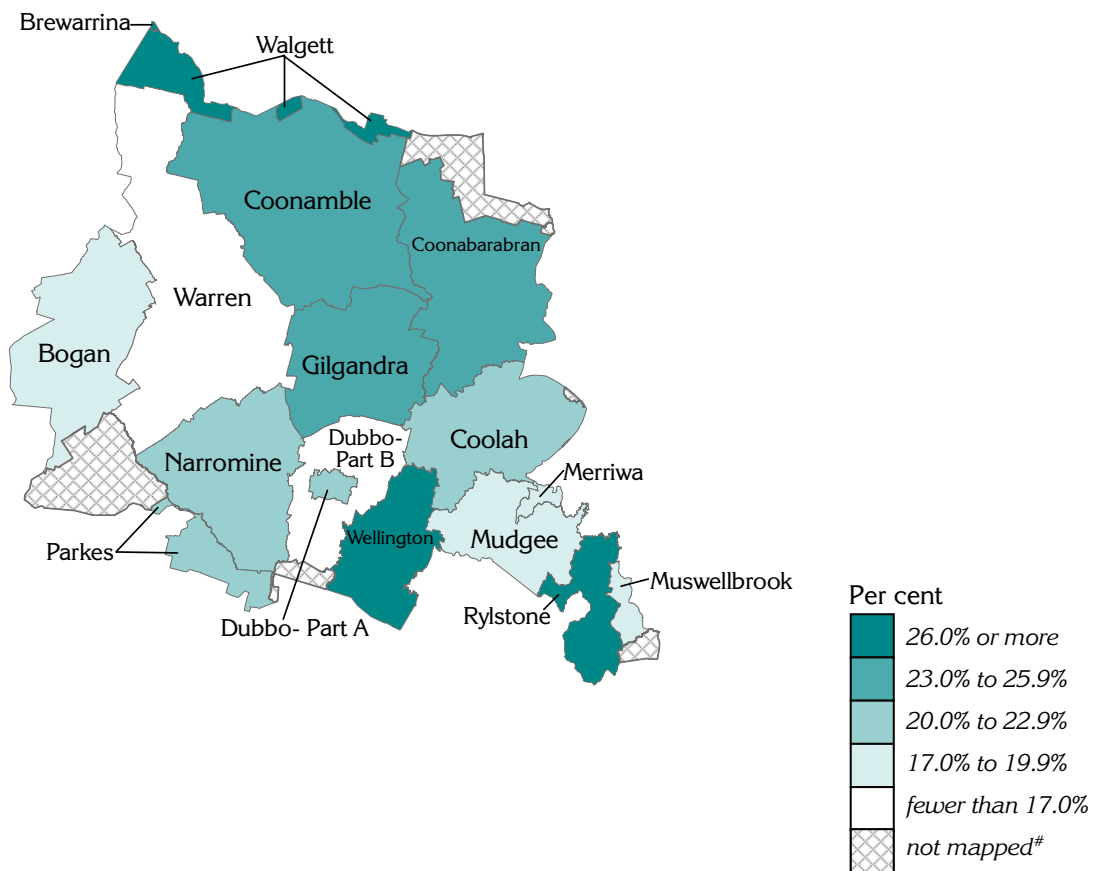


Table 2: Socio-demographic indicators, Dubbo/Plains DGP, country New South Wales, New South Wales and Australia, 2001

Indicator	Dubbo/Plains DGP		Country NSW		New South Wales		Australia	
	No.	%	No.	%	No.	%	No.	%
Jobless families with children under 15 years old	3,872	21.1	54,883	20.9	121,409	17.6	357,563	17.4
Private health insurance (30 June)	50,069	44.6	1,061,580	44.9	3,062,382	48.2	8,671,106	46.0

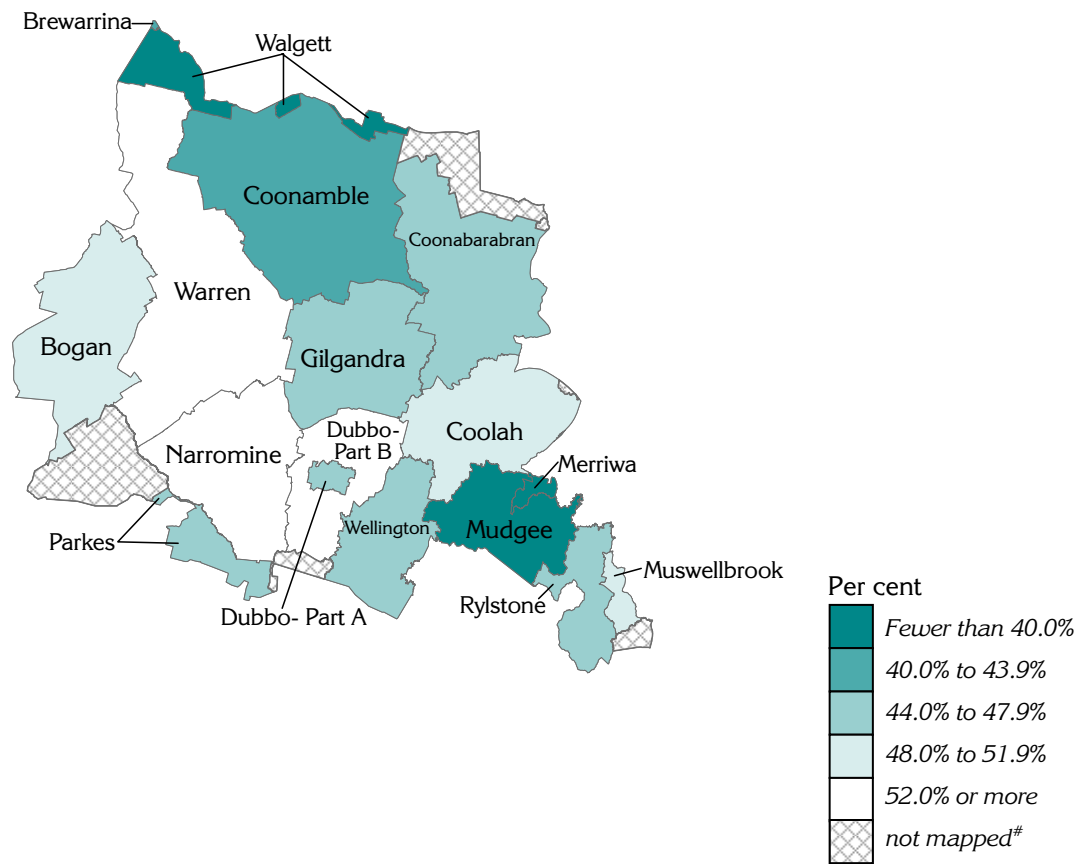
Details of the distribution of jobless families and of the population covered by private health insurance are shown by Statistical Local Area (SLA) in Maps 1 and 2, respectively.

Map 1: Jobless families with children under 15 years of age by SLA, Dubbo/Plains DGP, 2001



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

Map 2: People covered by private health insurance by SLA, Dubbo/Plains DGP, 30 June 2001



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

GP services to residents of the Dubbo/Plains 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.

The majority (90.6%) of GP unreferral attendances to residents of Dubbo/Plains DGP were provided in the Division (ie. by a GP with a provider number in the Division): this represented 394,461 GP unreferral attendances (Table 3). A further 1.5% of unreferral attendances to residents were provided by GPs with a provider number in NSW Central West DGP.

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

Division		Unreferral attendances	
Number	Name	No.	% ³
230	Dubbo/Plains DGP	394,461	90.6
229	NSW Central West DGP	6,730	1.5
206	Western Sydney DGP (now WentWest & part Hawkesbury-Hills)	2,591	0.6
233	NSW Outback DGP	2,279	0.5
201	Central Sydney DGP	1,963	0.5
202	Eastern Sydney DGP	1,763	0.4
215	Macarthur DGP	1,587	0.4
217	Hunter Urban DGP	1,576	0.4
Other	..	22,536	5.1
Total	..	435,486	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 230 by Division in which attendance occurred

The majority (90.5%) of unreferral attendances provided by GPs with a provider number in Dubbo/Plains DGP were also to people living in the Division (ie. their Medicare address was in the Division) (Table 4). A further 2.6% of unreferral attendances by GPs in the Division were to people living in NSW Outback DGP, with 1.8% to residents of NSW Central West DGP.

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

Division		Unreferral attendances	
Number	Name	No.	% ³
230	Dubbo/Plains DGP	394,461	90.5
233	NSW Outback DGP	11,435	2.6
229	NSW Central West DGP	7,935	1.8
218	Hunter Rural DGP	1,598	0.4
231	Barwon DGP	1,503	0.3
219	Central Coast DGP	1,501	0.3
217	Hunter Urban DGP	1,291	0.3
Other	..	16,093	3.7
Total	..	435,817	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 230 by Division of patient address

Additional prevalence estimates: chronic diseases and risk factors combined

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

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

It is estimated that there were relatively more people in Dubbo/Plains DGP who had asthma and were smokers, compared to Australia as a whole, with a similar rate to that in country New South Wales (Figure 6, Table 5): that is, the prevalence rates per 1,000 population were higher than the national rates. However, there were fewer people in Dubbo/Plains DGP who had type 2 diabetes and were overweight or obese, compared to country New South Wales and Australia.

Figure 6: Estimates of selected chronic diseases and risk factors, Dubbo/Plains DGP, country New South Wales and Australia, 2001



Table 5: Estimates of selected chronic diseases and risk factors, Dubbo/Plains DGP, country New South Wales, New South Wales and Australia, 2001

Variable	Dubbo/Plains DGP		Country NSW		New South Wales		Australia	
	No. ¹	Rate ²	No. ¹	Rate ²	No. ¹	Rate ²	No. ¹	Rate ¹
Had asthma and smoked ³	2,255	25.2	54,344	24.7	126,542	19.7	397,734	20.8
Had type 2 diabetes & were overweight/ obese ⁴	1,467	14.0	40,784	15.5	100,235	15.7	283,176	15.2

¹ No. is a weighted estimate of the number of people in Dubbo/Plains 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 4,115 admissions for ambulatory care sensitive (ACS) conditions accounted for 11.9% of all admissions in the Dubbo/Plains DGP (Table 6, Figure 7), notably above the levels for both New South Wales (8.6%) and Australia (8.7%).

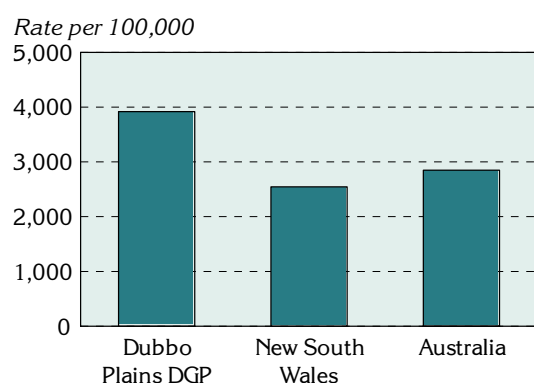
Table 6: Avoidable¹ and unavoidable hospitalisations, Dubbo/Plains DGP, New South Wales, and Australia, 2001/02

Category	Dubbo/Plains DGP			New South Wales			Australia		
	No.	Rate ²	%	No.	Rate ²	%	No.	Rate ²	%
Avoidable ¹	4,115	3,918.3	11.9	170,066	2,543.8	8.6	552,786	2,847.5	8.7
Unavoidable	30,470	29,890.5	88.1	1,810,901	27,255.3	91.4	5,818,199	29,970.7	91.3
Total	34,585	33,838.5	100.0	1,980,967	29,798.8	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, Dubbo/Plains DGP, New South Wales and Australia, 2001/02



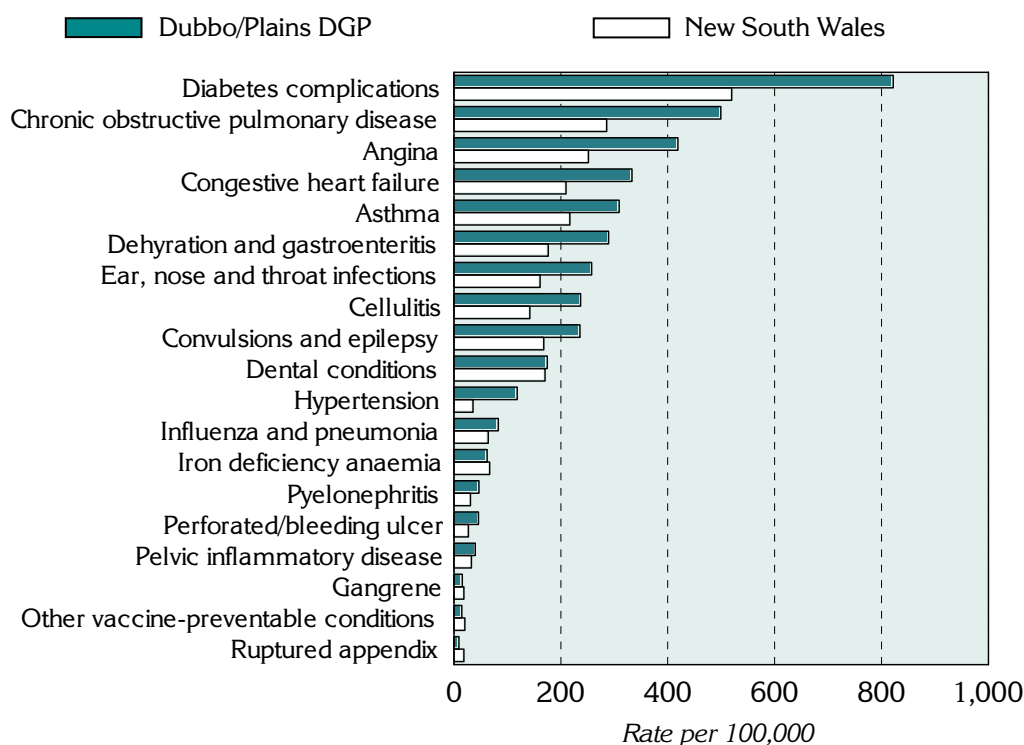
The rate of avoidable hospitalisations in Dubbo/Plains DGP is substantially higher, a rate of 3,918.3 admissions per 100,000 population, compared to New South Wales (a rate of 2,543.8) and markedly higher than for Australia (2,847.5).

¹ Admissions resulting from ACS conditions

Diabetes complications, chronic obstructive pulmonary disease, angina and congestive heart failure had the highest rates of avoidable hospitalisations in the Dubbo/Plains 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. Almost two-thirds of avoidable hospitalisations are attributable to chronic health conditions. The predominance of hospitalisations for chronic conditions in this period can be primarily attributed to the large number of admissions for diabetes complications. Dehydration and gastroenteritis; and ear nose and throat infections have the highest rates of avoidable hospitalisations for the acute conditions.

Figure 8: Avoidable hospitalisations¹ by condition, Dubbo/Plains DGP and New South Wales, 2001/02



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

Table 7: Avoidable hospitalisations¹ by condition, Dubbo/Plains DGP, New South Wales and Australia, 2001/02

Sub-category/ condition	Dubbo/Plains DGP		New South Wales		Australia	
	No.	Rate ²	No.	Rate ²	No.	Rate ²
Vaccine-preventable	102	97.8	5,630	84.5	16,573	85.4
Influenza and pneumonia	87	83.0	4,280	64.1	13,021	67.1
Other vaccine preventable	15	14.8	1,350	20.4	3,552	18.3
Chronic³	2,704	2,562.8	106,803	1,587.0	352,545	1,816
Diabetes complications	866	821.8	34,975	519.5	141,345	728.1
Iron deficiency anaemia	63	62.0	4,494	67.0	16,451	84.7
Hypertension	123	118.5	2,398	35.7	6,354	32.7
Congestive heart failure	345	333.2	14,270	209.7	42,447	218.6
Angina	442	419.0	16,987	251.8	49,963	257.4
Chronic obstructive pulmonary disease	528	499.2	19,359	285.6	54,853	282.6
Asthma	337	309.1	14,289	216.8	41,009	211.3
Acute	1,409	1,352.4	62,543	946.0	200,913	1,035
Dehydration and gastroenteritis	289	289.5	11,725	176.4	37,766	194.5
Convulsions and epilepsy	247	235.7	11,093	168.1	31,137	160.4
Ear, nose and throat infections	286	257.6	10,615	161.1	32,075	165.2
Dental conditions	188	174.8	11,196	170.3	43,667	224.9
Perforated/bleeding ulcer	48	46.0	1,830	27.1	5,795	29.9
Ruptured appendix	9	9.3	1,212	18.5	3,866	19.9
Pyelonephritis	46	46.9	2,038	31.0	7,386	38.0
Pelvic inflammatory disease	37	40.0	2,134	32.7	6,547	33.7
Cellulitis	243	237.0	9,451	142.0	28,204	145.3
Gangrene	16	15.6	1,249	18.6	4,470	23.0
Total avoidable hospitalisations⁴	4,115	3,918.3	170,066	2,543.8	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.

Two thirds (66.5%) of all deaths in Dubbo/Plains DGP at ages 0 to 74 years over the period 1997 to 2001 are considered to be avoidable, lower than the proportion for country New South Wales (71.6%) (Table 8). Deaths amenable to health care (amenable mortality, a subset of avoidable mortality) accounted for 25.0% of all deaths at ages 0 to 74 years in Dubbo/Plains DGP, compared to 28.3% in country New South Wales.

Table 8: Avoidable and unavoidable mortality (0 to 74 years) by area, Dubbo/Plains DGP, country New South Wales, New South Wales and Australia, 1997 to 2001

Mortality category	Dubbo/Plains DGP		Country NSW		New South Wales		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable	1,247	249.4	29,442	234.3	66,151	213.6	189,845	211.8
% of total	66.5	..	71.6	..	71.4	..	71.5	..
(Amenable)	(469)	(92.3)	(11,638)	(91.2)	(26,374)	(85.0)	(76,249)	(85.1)
(% of total)	(25.0)	(..)	(28.3)	(..)	(28.5)	(..)	(28.7)	(..)
Unavoidable	628	124.1	11,700	92.1	26,468	85.3	75,582	84.3
% of total	33.5	..	28.4	..	28.6	..	28.5	..
Total mortality	1,876	373.6	41,142	326.4	92,619	299.0	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. Dubbo/Plains DGP's rate of avoidable mortality for males was 322.7 deaths per 100,000 males, notably higher than the rate of 175.0 for females. Similarly, the rate of amenable mortality for males in the Division was higher, 104.9, compared to 79.5 for females, a rate ratio of 1.32 (Figure 9, Table 9).

Figure 9: Avoidable and amenable mortality by sex (0 to 74 years), Dubbo/Plains DGP, country New South Wales, New South Wales and Australia, 1997 to 2001

Note: the different scales

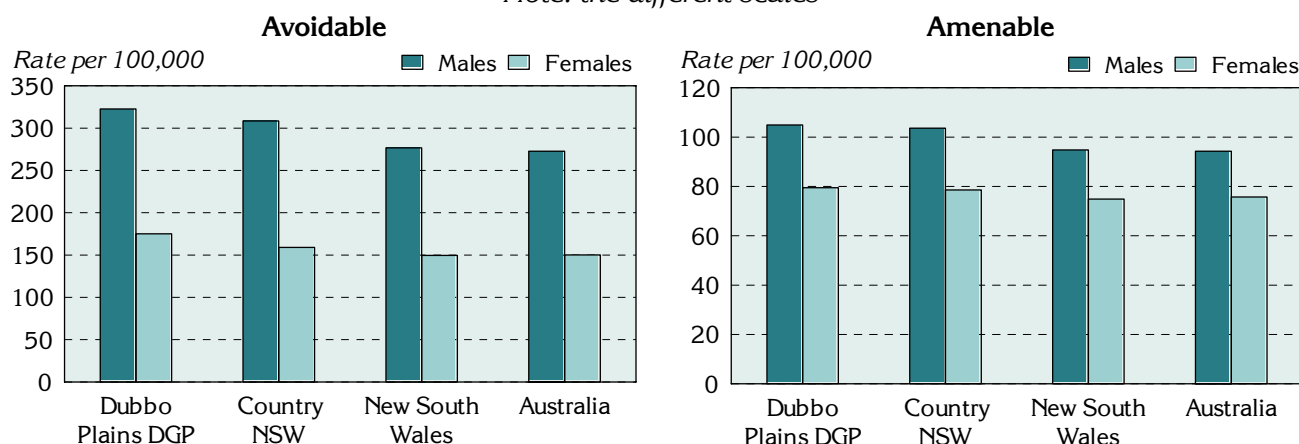


Table 9: Avoidable and amenable mortality (0 to 74 years) by sex, Dubbo/Plains DGP, country New South Wales, New South Wales and Australia, 1997 to 2001

Mortality category and sex	Dubbo/Plains DGP		Country NSW		New South Wales		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable								
Males	824	322.7	19,569	308.5	43,074	276.8	123,026	272.6
Females	423	175.0	9,873	159.1	23,077	149.6	66,819	150.1
Total	1,247	249.4	29,442	234.3	66,151	213.6	189,845	211.8
Rate ratio–M:F²	..	1.84**	..	1.94**	..	1.85**	..	1.82**
Amenable								
Males	276	104.9	6,743	103.6	14,811	94.8	42,568	94.3
Females	194	79.5	4,895	78.6	11,562	74.9	33,681	75.7
Total	469	92.3	11,638	91.2	26,374	85.0	76,249	85.1
Rate ratio–M:F²	..	1.32**	..	1.32**	..	1.27**	..	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 Dubbo/Plains DGP, country New South Wales, New South Wales 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 66.3% of total YLL (0 to 74 years) for Dubbo/Plains DGP, lower than the 71.8% for country New South Wales. At the same time, the proportion of YLL from amenable mortality for Dubbo/Plains DGP (24.4%) was lower than that for country New South Wales (27.6%).

Table 10: Years of life lost from avoidable mortality (0 to 74 years), Dubbo/Plains DGP, country New South Wales, New South Wales and Australia, 1997 to 2001

Mortality category	Dubbo/Plains DGP		Country NSW		New South Wales		Australia	
	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Avoidable	21,397	66.3	502,860	71.8	1,147,183	71.8	3,327,375	71.9
(Amenable)	(7,882)	(24.4)	(192,960)	(27.6)	(444,143)	(27.8)	(1,298,430)	(28.0)
Unavoidable	10,873	33.7	197,182	28.2	451,496	28.2	1,303,289	28.1
Total	32,270	100.0	700,042	100.0	1,598,679	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 1,579.0 deaths per 100,000 population in Dubbo/Plains 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 376.1 in Dubbo/Plains Division.

Table 11: Avoidable and amenable mortality by age, Dubbo/Plains DGP, country New South Wales, New South Wales and Australia, 1997 to 2001

Mortality category and age (years)	Dubbo/Plains DGP		Country NSW		New South Wales		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable								
0-14	38	31.3	738	29.0	1,836	27.5	5,669	28.8
15-24	39	66.3	938	62.6	2,241	50.9	7,045	52.8
25-44	125	90.2	3,317	99.6	8,119	82.9	24,356	83.9
45-64	449	376.1	9,755	343.5	22,358	311.1	64,282	304.9
65-74	596	1,579.0	14,694	1464.0	31,597	1,375.8	88,493	1,358.1
Total	1,247	249.4	29,442	234.3	66,151	213.6	189,845	211.8
Amenable								
0-24	34	17.0	645	15.5	1,658	14.8	5,083	15.4
25-44	27	18.9	784	23.0	1,878	19.2	5,946	20.5
45-64	176	147.6	4,060	142.9	9,444	131.4	27,464	130.3
65-74	233	620.8	6,148	613.7	13,394	582.9	37,756	579.4
Total	469	92.3	11,638	91.2	26,374	85.0	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 Dubbo/Plains DGP were for cardiovascular diseases, with a rate of 80.1 deaths per 100,000 population, and cancer, 71.0 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 57.8 per 100,000 population and 26.8 per 100,000, respectively.

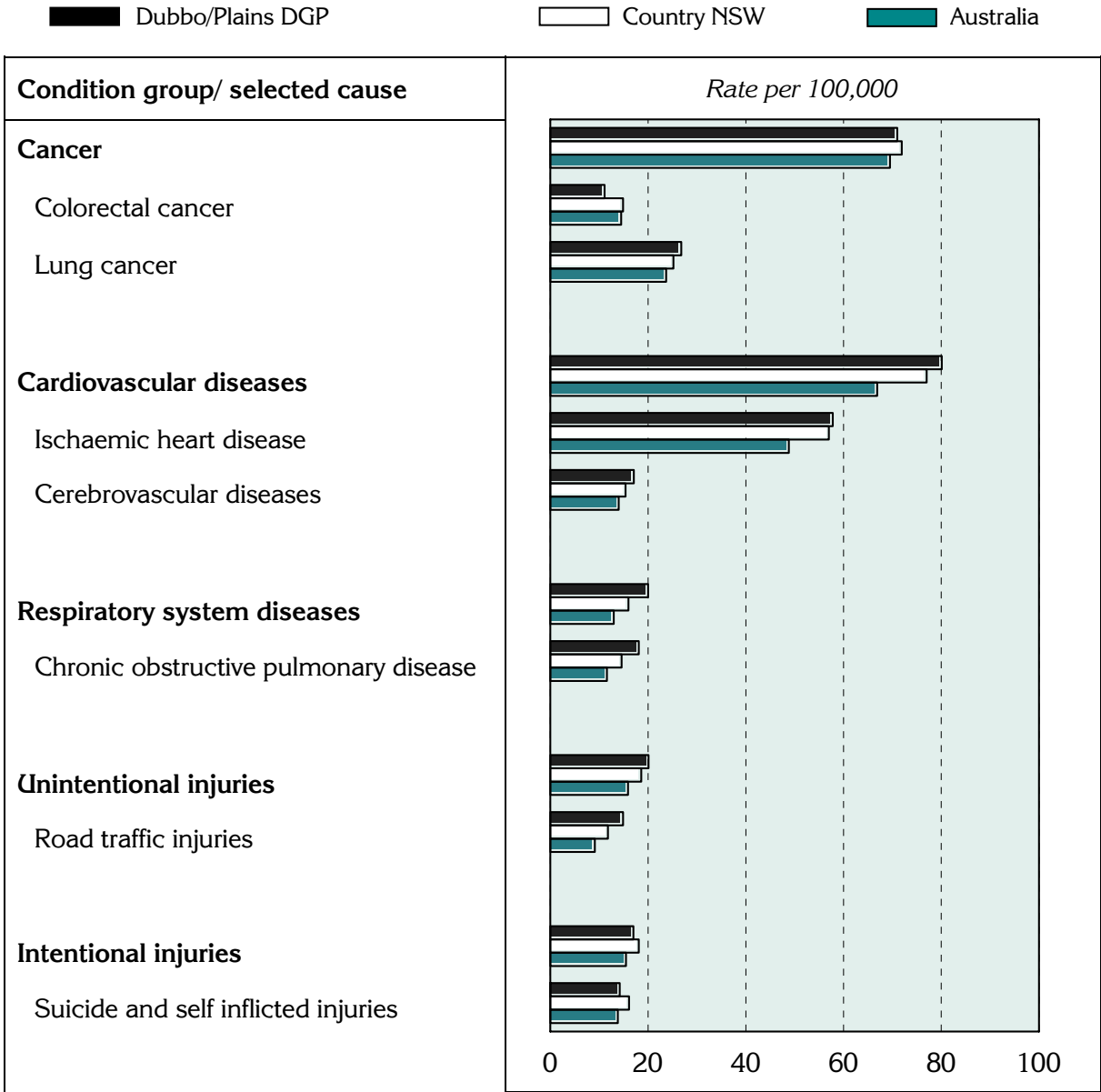
Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Dubbo/Plains DGP, Country NSW, New South Wales and Australia, 1997 to 2001

Condition group/selected cause	Dubbo/Plains DGP		Country NSW		New South Wales		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Cancer	362	71.0	9,239	71.9	21,158	68.1	62,338	69.5
Colorectal cancer	57	11.1	1,936	14.9	4,318	13.9	13,008	14.5
Lung cancer	139	26.8	3,314	25.2	7,297	23.4	21,208	23.7
Cardiovascular diseases	412	80.1	10,101	77.0	21,925	70.3	59,945	66.9
Ischaemic heart disease	298	57.8	7,474	57.0	15,935	51.1	43,712	48.8
Cerebrovascular diseases	87	17.1	2,015	15.4	4,656	14.9	12,558	14.0
Respiratory system diseases	103	20.0	2,136	16.0	4,313	13.8	11,612	13.0
Chronic obstructive pulmonary disease	94	18.1	1,966	14.6	3,882	12.4	10,395	11.6
Unintentional injuries	90	20.1	2,027	18.6	4,540	15.0	14,224	15.9
Road traffic injuries	67	14.9	1,279	11.8	2,528	8.4	8,138	9.1
Intentional injuries	75	17.0	1,939	18.1	4,497	14.9	13,891	15.5
Suicide and self inflicted injuries	63	14.2	1,730	16.1	3,941	13.0	12,393	13.8

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

With the exception of colorectal cancer, rates in the Division were above those for Australia for the condition groups and selected causes, but more variable in relation to rates in country New South Wales (Figure 10).

Figure 10: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Dubbo/Plains DGP, country New South Wales and Australia, 1997 to 2001



Notes on the data

Data sources and limitations

General

References to 'country New South Wales' relate to New South Wales excluding the Sydney 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 (ie. jobless families, people with health insurance): these areas are mapped with a pattern.

Statistical geography of the Dubbo/Plains 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, SLAs are, generally, equivalent to Local Government Areas (LGAs): the exception is Dubbo LGA (split into two SLAs, Part A and Part B, both wholly in the Division). The majority of the Division comprises SLAs from within the ABS North Western Statistical Division and from three of the four ABS Statistical Subdivisions of Dubbo, Central Macquarie and Macquarie-Barwon. The SLAs, and the proportion of their population estimated to be in Dubbo Plains Division (based on their 2001 Census Population), are shown in Table 14.

Table 14: SLAs and population in Dubbo/Plains 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
10950	Bogan	89.1	2,766
11200	Brewarrina	5.8	126
11750	<i>Cobar</i>	0.6	#
11950	Coolah	97.4	3,776
12100	Coonabarabran	96.6	6,404
12150	Coonamble	100.0	4,714
12601	Dubbo - Part A	100.0	35,753
12604	Dubbo - Part B	100.0	3,510
12950	Gilgandra	100.0	4,660
15250	Merriwa	5.4	126
15400	Mudgee	100.0	18,453
15650	Muswellbrook	1.3	194
15850	Narromine	100.0	7,033
16200	Parkes	8.5	1,273
16750	Rylstone	25.5	976
17900	Walgett	1.3	106
17950	Warren	100.0	3,273
18150	Wellington	94.4	8,116

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

Not shown as the total population is less than 100

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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