

Population health profile of the Northern Rivers

Division of General Practice: supplement

Population Profile Series: No. 23a

PHIDU

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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 Northern Rivers Division of General Practice: supplement

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

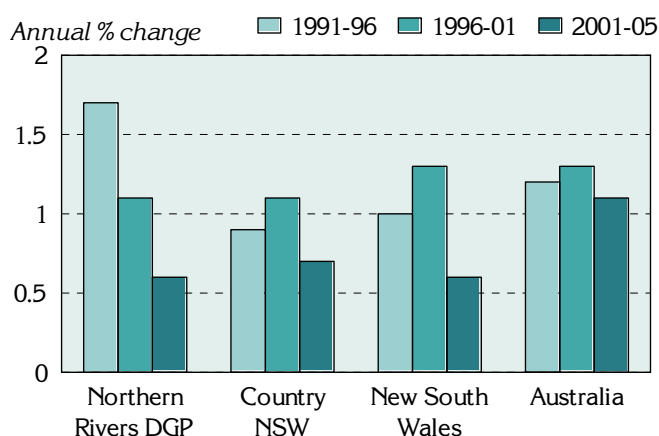
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances – patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive 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 Northern Rivers Division had an Estimated Resident Population of 162,622 at 30 June 2005.

Figure 1: Annual population change, Northern Rivers DGP, country New South Wales, New South Wales and Australia, 1991 to 1996, 1996 to 2001 and 2001 to 2005



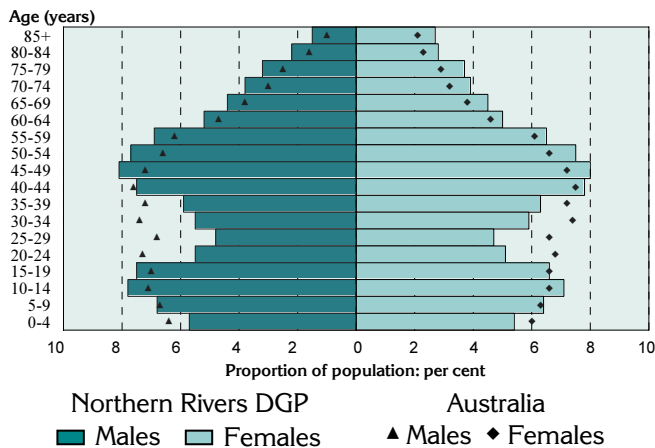
Over the five years from 1991 to 1996, the Division's population increased by 1.7% on average each year, higher than for country New South Wales (0.9%), New South Wales (1.0%), and Australia (1.2%). From 1996 to 2001, the annual percentage increase in the Division was 1.1%, similar to country New South Wales (1.2%), New South Wales (1.3%) and Australia (1.2%). The annual growth rate from 2001 to 2005 was a lower 0.6%, equal to the rate for country New South Wales and New South Wales, and lower than for Australia (1.1%)

Table 1: Population by age, Northern Rivers DGP and Australia, 2005

Age group (years)	Northern Rivers DGP		Australia	
	No.	%	No.	%
0-14	31,959	19.7	3,978,221	19.6
15-24	19,988	12.3	2,819,834	13.9
25-44	39,428	24.2	5,878,107	28.9
45-64	44,681	27.5	4,984,446	24.5
65-74	13,482	8.3	1,398,831	6.9
75-84	9,672	5.9	954,143	4.7
85+	3,412	2.1	315,027	1.5
Total	162,622	100.0	20,328,609	100.0

As shown in the accompanying table and the age-sex pyramid below (Figure 2), the Northern Rivers DGP had lower proportions of the population aged 15 to 24 years (12.2%), and 25 to 44 years (24.7%), compared to Australia as a whole (with 13.8%, and 29.3%). The 45 years and over age groups all had notably higher proportions than Australia.

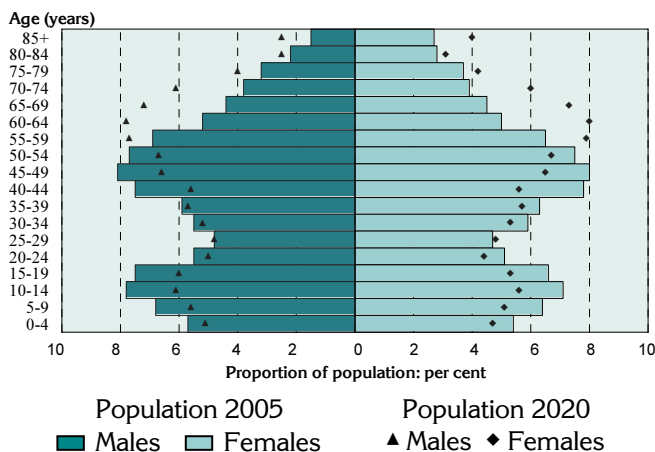
Figure 2: Population in Northern Rivers DGP and Australia, by age and sex, 2005



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

- at younger ages – a lower proportion of children aged 0 to 4 years, and higher proportions of males at ages 10 to 19 years, and females 10 to 14 years;
- from 20 to 39 years – lower proportions, perhaps moving away to continue education, or to seek employment opportunities; and
- at 40 years and over – higher proportions of females and males (from 45 years).

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



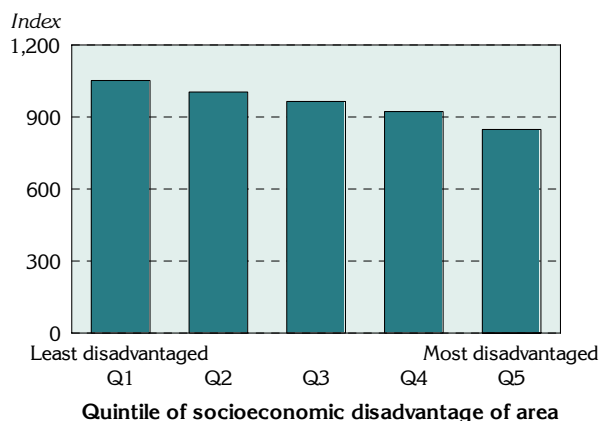
The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- at younger ages – generally much lower proportions of males and females aged 0 to 24 years;
- from 30 to 54 years – lower proportions of both males and females; and
- at ages 55 years and over – higher proportions of 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 Northern Rivers 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, Northern Rivers DGP, 2001



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

The Northern Rivers DGP has an index score of 958, below the score for Australia of 1000: this score varies widely across the Division, from 848 in the most disadvantaged areas to 1052 in the least disadvantaged areas.

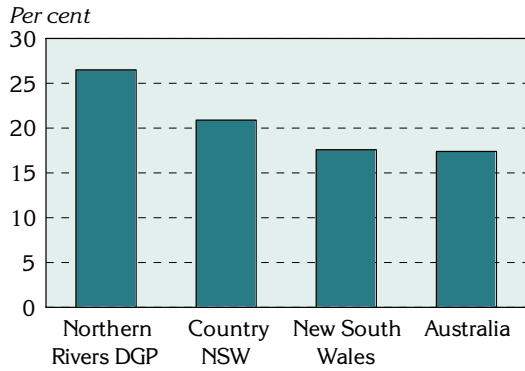
Note: each 'quintile' comprises approximately 20% of the population of the Division.

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 Northern Rivers DGP (26.5%) was markedly higher than 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 lower proportion of the population with private health insurance (41.8%), compared to country New South Wales (44.9%) (Figure 5, Table 2).

Figure 5: Socio-demographic indicators, Northern Rivers DGP, country New South Wales, New South Wales and Australia, 2001

Jobless families with children under 15 years old



Private health insurance, 30 June

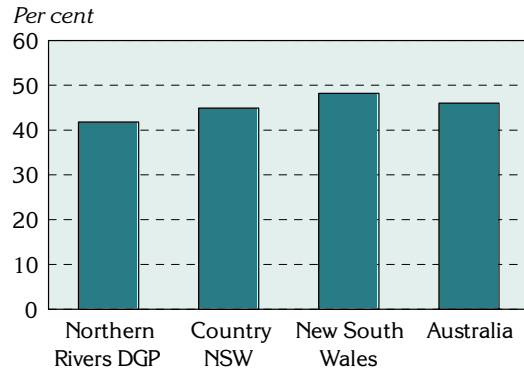
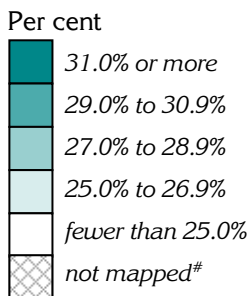
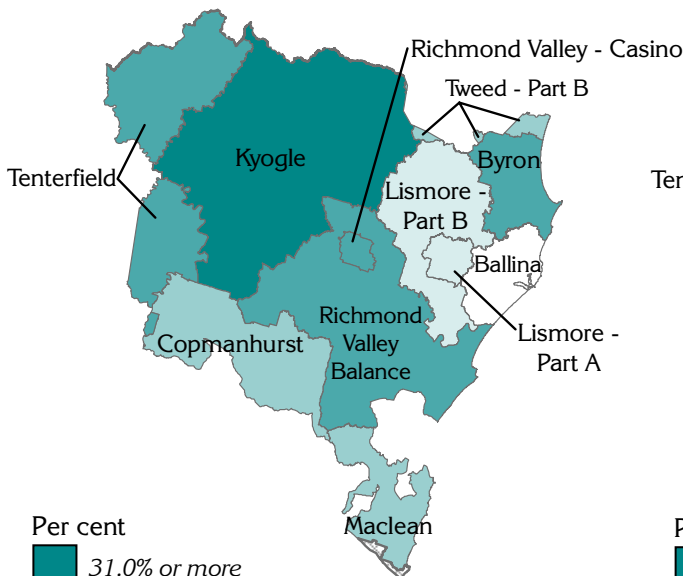


Table 2: Socio-demographic indicators, Northern Rivers DGP, country New South Wales, New South Wales and Australia, 2001

Indicator	Northern Rivers DGP		Country NSW		New South Wales		Australia	
	No.	%	No.	%	No.	%	No.	%
Jobless families with children under 15 years old	4,540	26.5	54,883	20.9	121,409	17.6	357,563	17.4
Private health insurance (30 June)	65,305	41.8	1,061,580	44.9	3,062,382	48.2	8,671,106	46.0

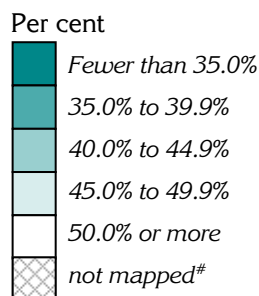
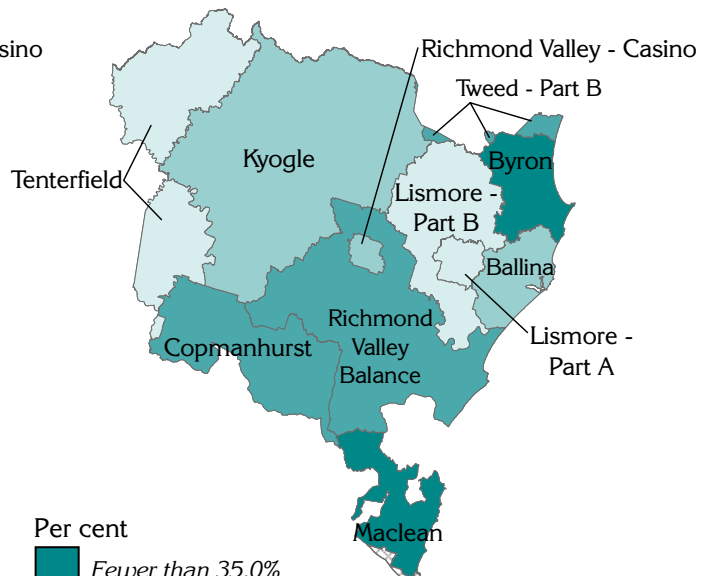
Details of the distribution of jobless families and of the population covered by private health insurance are shown by Statistical Local Area (SLA) in Maps 1 and 2, respectively.

Map 1: Jobless families with children under 15 years of age by SLA, Northern Rivers DGP, 2001



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

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



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

GP services to residents of the Northern Rivers DGP

The following tables include information, purchased from Medicare Australia, of the movement of patients and GPs between Divisions. Note that the data only include Unreferred attendances recorded under Medicare: unreferred attendances not included are those for which the cost is met by the Department of Veterans' Affairs or a compensation scheme; or are provided by salaried medical officers in hospitals, community health services or Aboriginal Medical Services, and which are not billed to Medicare. At any attendance, one or more services may have been provided.

The majority (91.2%) of all unreferred attendances to residents of Northern Rivers DGP were provided in the Division (i.e. by a GP with a provider number in the Division): this represented 627,207 GP unreferred attendances (Table 3). A further 1.3% of unreferred attendances to residents were provided by GPs with a provider number in Tweed Valley DGP, with 0.9% provided by GPs in Gold Coast DGP.

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

Division		Unreferred attendances	
Number	Name	No.	% ³
225	Northern Rivers DGP	627,207	91.2
226	Tweed Valley DGP	8,761	1.3
406	Gold Coast DGP	5,866	0.9
224	Mid North Coast DGP	4,352	0.6
405	GPpartners DGP	3,216	0.5
201	Central Sydney DGP	2,032	0.3
202	Eastern Sydney DGP	1,778	0.3
401	Brisbane Inner South DGP	1,707	0.2
414	Southern Queensland Rural DGP	1,498	0.2
206	Western Sydney DGP (now WentWest & part Hawkesbury-Hills)	1,431	0.2
Other	..	29,645	4.3
Total		687,493	100.0

¹ Based on address in Medicare records

² Division of GP based on provider number

³ Unreferred Proportion of all unreferred attendances of patients with an address in Division 225 by Division in which attendance occurred

The majority (93.3%) of unreferred attendances provided by GPs with a provider number in Northern Rivers DGP were also to people living in the Division (i.e. their Medicare address was in the Division) (Table 4). A further 0.9% of unreferred attendances by GPs in the Division were to residents of Tweed Valley DGP.

Table 4: GP catchment – Unreferred attendances provided by GPs¹ in Northern Rivers DGP by Division of patient address², 2003/04

Division		Unreferred attendances	
Number	Name	No.	% ³
225	Northern Rivers DGP	627,207	93.3
226	Tweed Valley DGP	6,246	0.9
224	Mid North Coast DGP	5,517	0.8
406	Gold Coast DGP	2,353	0.4
405	GPpartners DGP	1,400	0.2
227	New England DGP	1,176	0.2
202	Eastern Sydney DGP	1,118	0.2
219	Central Coast DGP	1,107	0.2
217	Hunter Urban DGP	1,034	0.2
Other	..	25,072	3.7
Total	..	672,230	100.0

¹ Division of GP based on provider number

² Based on address in Medicare records

³ Proportion of all unreferred attendances to GPs with a provider number in Division 225 by Division of patient address

Additional prevalence estimates: chronic diseases and risk factors combined

Please refer to the earlier *Population health profile of the Northern Rivers 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 Northern Rivers DGP who had asthma and were smokers, compared to country New South Wales and Australia as a whole (Figure 6, Table 5): that is, the prevalence rates per 1,000 population were higher. The rates of people in Northern Rivers DGP who had type 2 diabetes and were overweight or obese, were consistent with those in country New South Wales and Australia.

Figure 6: Estimates of selected chronic diseases and risk factors, Northern Rivers DGP, country New South Wales and Australia, 2001



Table 5: Estimates of selected chronic diseases and risk factors, Northern Rivers DGP, country New South Wales, New South Wales and Australia, 2001

Variable	Northern Rivers 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	3,671	26.4	54,344	24.7	126,542	19.7	397,734	20.8
Had type 2 diabetes & were overweight/ obese ⁴	2,809	15.8	40,784	15.5	100,235	15.7	283,176	15.2

¹ No. is a weighted estimate of the number of people in Northern Rivers 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 4,766 admissions for ambulatory care sensitive (ACS) conditions accounted for 9.7% of all admissions in the Northern Rivers DGP (Table 6, Figure 7), notably above the levels for both New South Wales (8.6%) and Australia (8.7%).

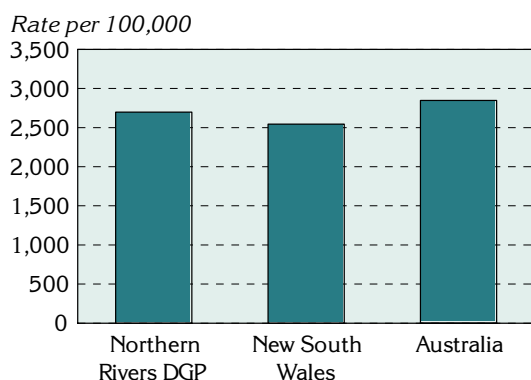
Table 6: Avoidable¹ and unavoidable hospitalisations, Northern Rivers DGP, New South Wales, and Australia, 2001/02

Category	Northern Rivers DGP			New South Wales			Australia		
	No.	Rate ²	%	No.	Rate ²	%	No.	Rate ²	%
Avoidable ¹	4,766	2,698.3	9.7	170,066	2,543.8	8.6	552,786	2,847.5	8.7
Unavoidable	44,465	26,387.7	90.3	1,810,901	27,255.3	91.4	5,818,199	29,970.7	91.3
Total	49,231	29,094.4	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, Northern Rivers DGP, New South Wales and Australia, 2001/02



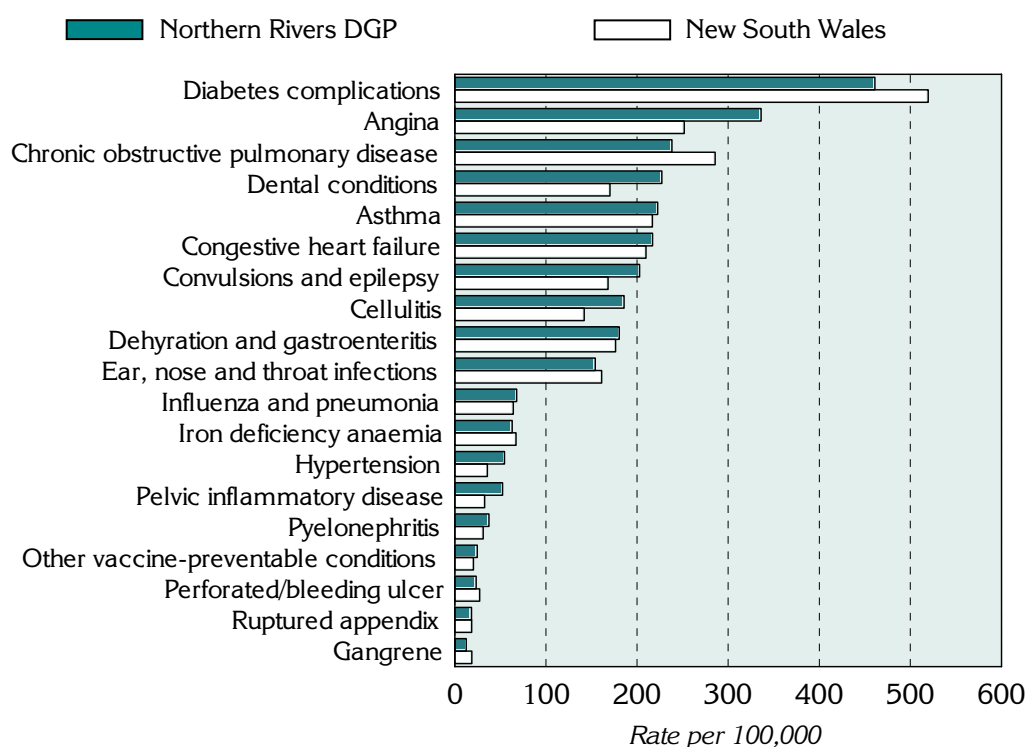
The rate of avoidable hospitalisations in Northern Rivers DGP is higher, a rate of 2,698.3 admissions per 100,000 population, compared to New South Wales (a rate of 2,543.8) yet lower than for Australia (2,847.5).

¹ Admissions resulting from ACS conditions

Diabetes complications, angina, chronic obstructive pulmonary disease, dental conditions and asthma had the highest rates of avoidable hospitalisations in the Northern Rivers 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. Dental conditions; and convulsions and epilepsy have the highest rates of avoidable hospitalisations for the acute conditions.

Figure 8: Avoidable hospitalisations¹ by condition, Northern Rivers 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, Northern Rivers DGP, New South Wales and Australia, 2001/02

Sub-category/ condition	Northern Rivers DGP		New South Wales		Australia	
	No.	Rate ²	No.	Rate ²	No.	Rate ²
Vaccine-preventable	157	92.2	5,630	84.5	16,573	85.4
Influenza and pneumonia	118	67.7	4,280	64.1	13,021	67.1
Other vaccine preventable	39	24.5	1,350	20.4	3,552	18.3
Chronic³	2,954	1,592.3	106,803	1,587.0	352,545	1,816
Diabetes complications	859	461.1	34,975	519.5	141,345	728.1
Iron deficiency anaemia	115	62.9	4,494	67.0	16,451	84.7
Hypertension	99	54.4	2,398	35.7	6,354	32.7
Congestive heart failure	429	217.0	14,270	209.7	42,447	218.6
Angina	637	336.1	16,987	251.8	49,963	257.4
Chronic obstructive pulmonary disease	462	238.2	19,359	285.6	54,853	282.6
Asthma	353	222.6	14,289	216.8	41,009	211.3
Acute	1,770	1,093.9	62,543	946.0	200,913	1,035
Dehydration and gastroenteritis	302	180.5	11,725	176.4	37,766	194.5
Convulsions and epilepsy	321	202.8	11,093	168.1	31,137	160.4
Ear, nose and throat infections	238	154.1	10,615	161.1	32,075	165.2
Dental conditions	359	227.1	11,196	170.3	43,667	224.9
Perforated/bleeding ulcer	44	23.3	1,830	27.1	5,795	29.9
Ruptured appendix	29	18.2	1,212	18.5	3,866	19.9
Pyelonephritis	59	37.4	2,038	31.0	7,386	38.0
Pelvic inflammatory disease	77	52.3	2,134	32.7	6,547	33.7
Cellulitis	318	185.7	9,451	142.0	28,204	145.3
Gangrene	23	12.5	1,249	18.6	4,470	23.0
Total avoidable hospitalisations⁴	4,766	2,698.3	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.

Almost three quarters (74.9%) of all deaths in Northern Rivers DGP at ages 0 to 74 years over the period 1997 to 2001 are considered to be avoidable, higher 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 29.6% of all deaths at ages 0 to 74 years in Northern Rivers DGP, compared to 28.3% in country New South Wales.

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

Mortality category	Northern Rivers DGP		Country NSW		New South Wales		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable	1,792	219.3	29,442	234.3	66,151	213.6	189,845	211.8
% of total	74.9	..	71.6	..	71.4	..	71.5	..
(Amenable)	(709)	(85.3)	(11,638)	(91.2)	(26,374)	(85.0)	(76,249)	(85.1)
(% of total)	(29.6)	(..)	(28.3)	(..)	(28.5)	(..)	(28.7)	(..)
Unavoidable	602	72.8	11,700	92.1	26,468	85.3	75,582	84.3
% of total	25.1	..	28.4	..	28.6	..	28.5	..
Total mortality	2,394	292.0	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. Northern Rivers DGP's rate of avoidable mortality for males was 285.5 deaths per 100,000 males, notably higher than the rate of 152.3 for females. Similarly, the rate of amenable mortality for males in the Division was higher, 96.9, compared to 73.6 for females, a rate ratio of 1.32 (Figure 9, Table 9).

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

Note: the different scales

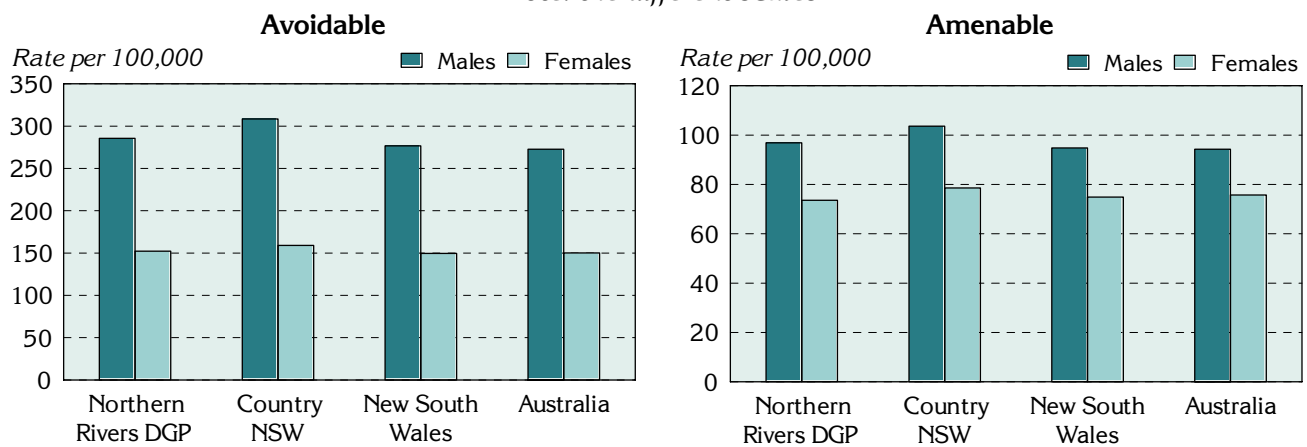


Table 9: Avoidable and amenable mortality (0 to 74 years) by sex, Northern Rivers DGP, country New South Wales, New South Wales and Australia, 1997 to 2001

Mortality category and sex	Northern Rivers DGP		Country NSW		New South Wales		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable								
Males	1,170	285.5	19,569	308.5	43,074	276.8	123,026	272.6
Females	622	152.3	9,873	159.1	23,077	149.6	66,819	150.1
Total	1,792	219.3	29,442	234.3	66,151	213.6	189,845	211.8
Rate ratio-M:F²	..	1.87**	..	1.94**	..	1.85**	..	1.82**
Amenable								
Males	408	96.9	6,743	103.6	14,811	94.8	42,568	94.3
Females	302	73.6	4,895	78.6	11,562	74.9	33,681	75.7
Total	709	85.3	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 Northern Rivers 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 75.0% of total YLL (0 to 74 years) for Northern Rivers DGP, higher than the 71.8% for country New South Wales. Similarly, the proportion of YLL from amenable mortality for Northern Rivers DGP (28.4%) was higher than that for country New South Wales (27.6%).

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

Mortality category	Northern Rivers DGP		Country NSW		New South Wales		Australia	
	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Avoidable	30,833	75.0	502,860	71.8	1,147,183	71.8	3,327,375	71.9
(Amenable)	(11,672)	(28.4)	(192,960)	(27.6)	(444,143)	(27.8)	(1,298,430)	(28.0)
Unavoidable	10,284	25.0	197,182	28.2	451,496	28.2	1,303,289	28.1
Total	41,118	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 1,368.0 deaths per 100,000 population in Northern Rivers 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 294.9 in Northern Rivers Division.

Table 11: Avoidable and amenable mortality by age, Northern Rivers DGP, country New South Wales, New South Wales and Australia, 1997 to 2001

Mortality category and age (years)	Northern Rivers DGP		Country NSW		New South Wales		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable								
0-14	53	33.3	738	29.0	1,836	27.5	5,669	28.8
15-24	59	62.2	938	62.6	2,241	50.9	7,045	52.8
25-44	237	110.5	3,317	99.6	8,119	82.9	24,356	83.9
45-64	535	294.9	9,755	343.5	22,358	311.1	64,282	304.9
65-74	908	1,368.0	14,694	1464.0	31,597	1,375.8	88,493	1,358.1
Total	1,792	219.3	29,442	234.3	66,151	213.6	189,845	211.8
Amenable								
0-24	37	14.1	645	15.5	1,658	14.8	5,083	15.4
25-44	53	22.9	784	23.0	1,878	19.2	5,946	20.5
45-64	233	128.5	4,060	142.9	9,444	131.4	27,464	130.3
65-74	387	584.5	6,148	613.7	13,394	582.9	37,756	579.4
Total	709	85.3	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 Northern Rivers DGP were for cardiovascular diseases, with a rate of 71.9 deaths per 100,000 population, and cancer, 68.5 deaths per 100,000 population (Table 12, Figure 10). For the selected causes within the condition groups, the two major causes of avoidable mortality were ischaemic heart disease and lung cancer, with rates of 52.1 per 100,000 population and 22.4 per 100,000, respectively.

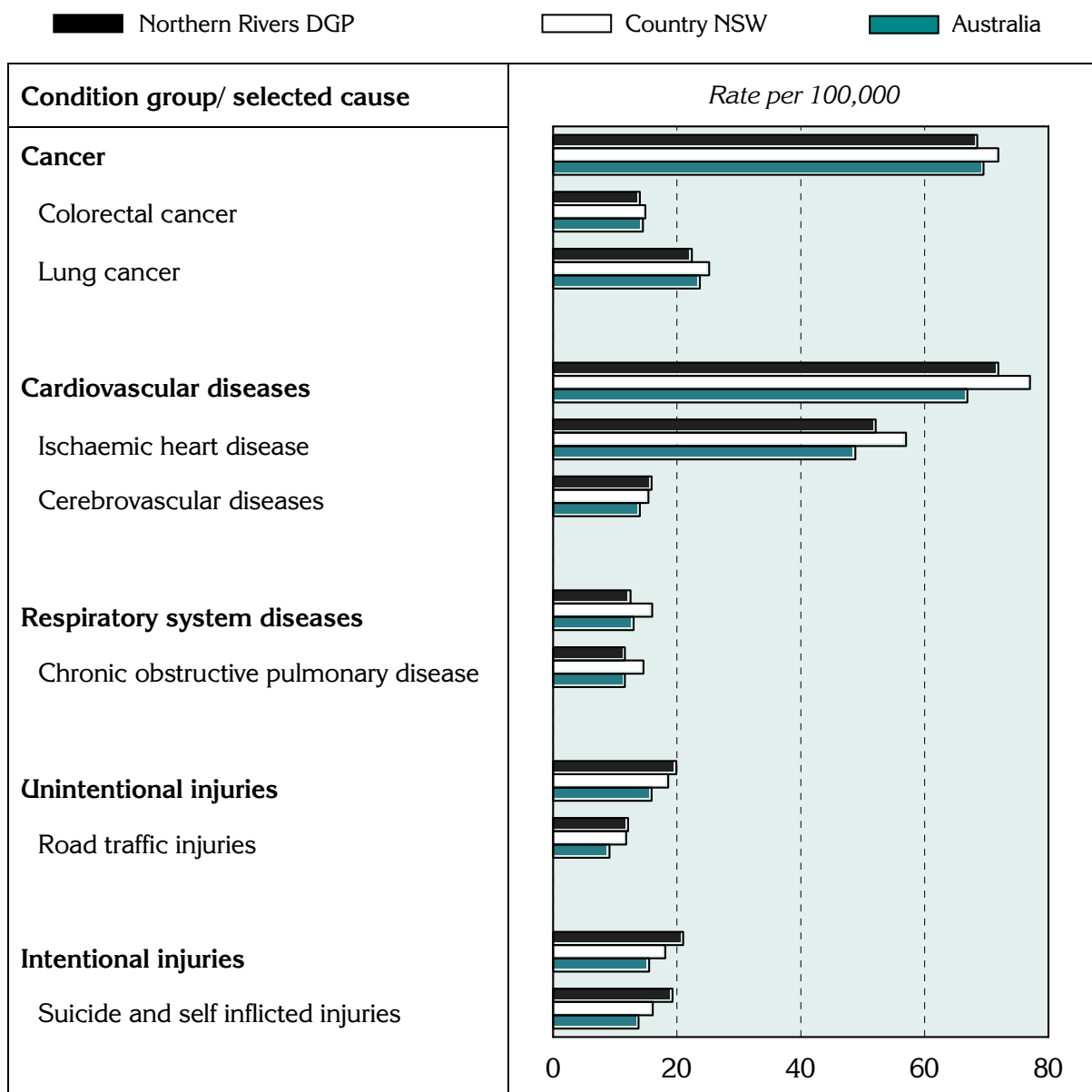
Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Northern Rivers DGP, country New South Wales, New South Wales and Australia, 1997 to 2001

Condition group/ selected cause	Northern Rivers DGP		Country NSW		New South Wales		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Cancer	574	68.5	9,239	71.9	21,158	68.1	62,338	69.5
Colorectal cancer	118	14.0	1,936	14.9	4,318	13.9	13,008	14.5
Lung cancer	191	22.4	3,314	25.2	7,297	23.4	21,208	23.7
Cardiovascular diseases	617	71.9	10,101	77.0	21,925	70.3	59,945	66.9
Ischaemic heart disease	446	52.1	7,474	57.0	15,935	51.1	43,712	48.8
Cerebrovascular diseases	137	15.9	2,015	15.4	4,656	14.9	12,558	14.0
Respiratory system diseases	109	12.5	2,136	16.0	4,313	13.8	11,612	13.0
Chronic obstructive pulmonary disease	103	11.6	1,966	14.6	3,882	12.4	10,395	11.6
Unintentional injuries	139	19.9	2,027	18.6	4,540	15.0	14,224	15.9
Road traffic injuries	84	12.1	1,279	11.8	2,528	8.4	8,138	9.1
Intentional injuries	145	21.0	1,939	18.1	4,497	14.9	13,891	15.5
Suicide and self inflicted injuries	133	19.3	1,730	16.1	3,941	13.0	12,393	13.8

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

Rates in the Division were generally above or consistent with 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, Northern Rivers 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 Northern Rivers 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 Richmond Valley is comprised of two SLAs, Casino (a majority of which is in the Division) and Balance (all in the Division). These SLAs, and all or parts of the other SLAs listed in Table 14 comprise the Division.

Table 14: SLAs and population in Northern Rivers 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
10250	Ballina	100.0	39,953
11350	Byron	94.5	29,129
12250	Copmanhurst	7.9	369
14550	Kyogle	99.9	9,618
14851	Lismore - Part A	100.0	31,311
14854	Lismore - Part B	100.0	12,317
15000	Maclean	91.6	16,528
16611	Richmond Valley - Casino	98.0	10,167
16612	Richmond Valley - Balance	99.4	10,324
17400	Tenterfield	21.7	1,474
17552	Tweed - Part B	4.9	1,433

* 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

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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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