Population health profile of the

Liverpool

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 Liverpool Division of General Practice: supplement

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

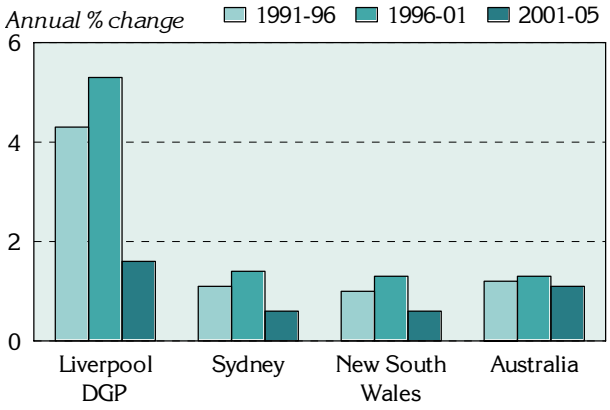
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances – patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive 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 Liverpool Division had an Estimated Resident Population of 176,660 at 30 June 2005.

Figure 1: Annual population change, Liverpool DGP, Sydney, New South Wales and Australia, 1991 to 1996, 1996 to 2001 and 2001 to 2005



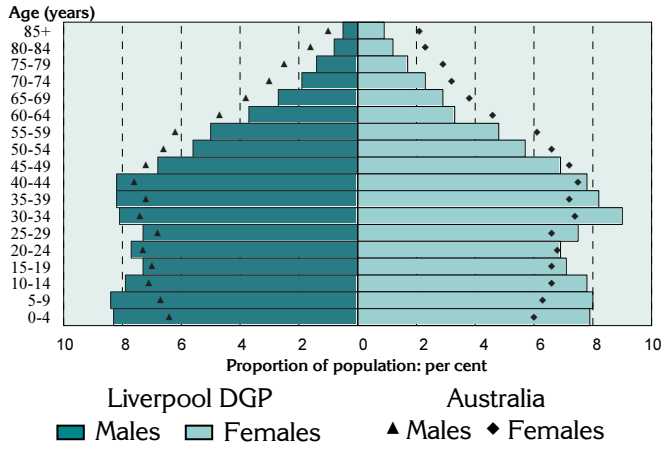
Over the five years from 1991 to 1996, the Division's population increased by 4.3% on average each year, substantially higher than in Sydney (1.1%) and New South Wales (1.0%). From 1996 to 2001, the annual percentage increase rose to 5.3%, again substantially higher than in Sydney (1.4%) and New South Wales (1.3%). The growth rate declined to 1.6% per year from 2001 to 2005, but was still well above the annual increases for Sydney and New South Wales (0.6%), and Australia (1.1%).

Table 1: Population by age, Liverpool DGP and Australia, 2005

Age group (years)	Liverpool DGP		Australia	
	No.	%	No.	%
0-14	42,636	24.1	3,978,221	19.6
15-24	25,626	14.5	2,819,834	13.9
25-44	56,881	32.2	5,878,107	28.9
45-64	37,067	21.0	4,984,446	24.5
65-74	8,662	4.9	1,398,831	6.9
75-84	4,557	2.6	954,143	4.7
85+	1,231	0.7	315,027	1.5
Total	**176,660**	**100.0**	**20,328,609**	**100.0**

As shown in the accompanying table and the age-sex pyramid below, Liverpool DGP had a higher proportion, than Australia as a whole, of children at ages 0 to 14 years (24.1%, compared to 19.6% for Australia), and people aged 25 to 44 years (32.2%, compared to 28.9%) (Table 1). Conversely, there were markedly fewer people in the 45 years and over age groups compared to Australia.

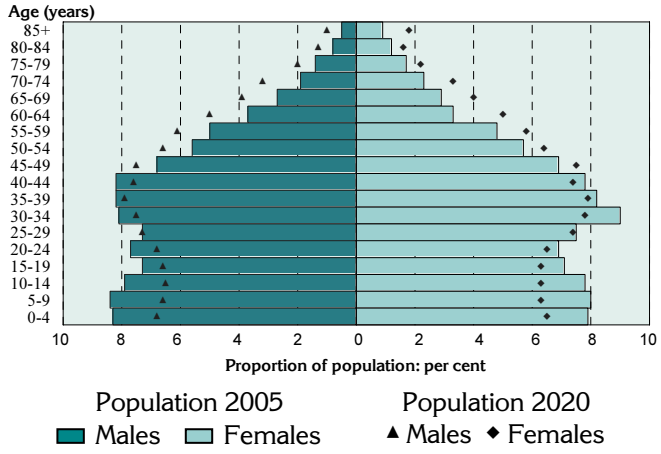
Figure 2: Population in Liverpool DGP and Australia, by age and sex, 2005



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 children aged 0 to 14 years (most pronounced at ages 0 to 9 years;
- from 20 to 44 years – higher proportions of both males and females; and,
- from 45 years – lower proportions of both males and females.

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



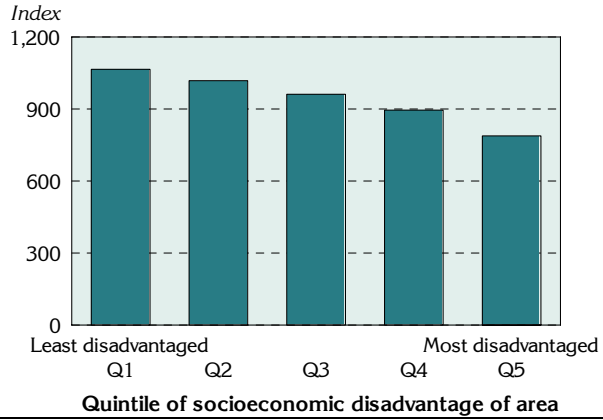
The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- at younger ages – much lower proportions of males and females aged 0 to 34 years (only marginally lower at ages 25 to 29 years); and
- from ages 45 years onwards – higher proportions of males and females (most pronounced at ages 60 to 74 years);

Additional socio-demographic indicators

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



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

The Liverpool DGP has an index score of 946, below the score for Australia of 1000: this score varies widely across the Division, from a low of 788 in the most disadvantaged areas to 1065 in the least disadvantaged areas.

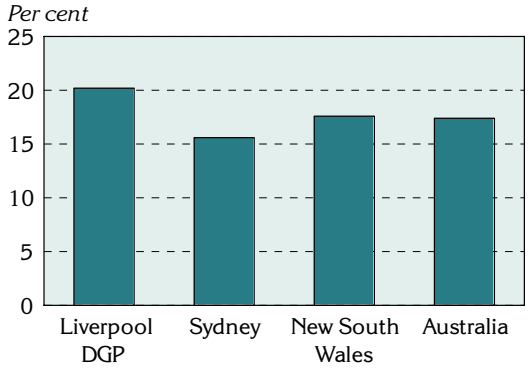
Note: each 'quintile' comprises approximately 20% of the population of the Division.

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 was a markedly higher proportion jobless families in the Liverpool DGP (20.2%), compared to Sydney as a whole (15.6%) (Figure 5, Table 2).

With the introduction of the 30% rebate for private health insurance premiums, there was a once-off registration process, providing information of the postcode and residence of those who had such insurance (these data are not available at this area level for later dates). In 2001, the Division had a markedly lower proportion of the population with private health insurance (35.7%), compared to Sydney (50.2%) (Figure 5, Table 2).

Figure 5: Socio-demographic indicators, Liverpool DGP, Sydney, New South Wales and Australia, 2001

Jobless families with children under 15 years old



Private health insurance, 30 June

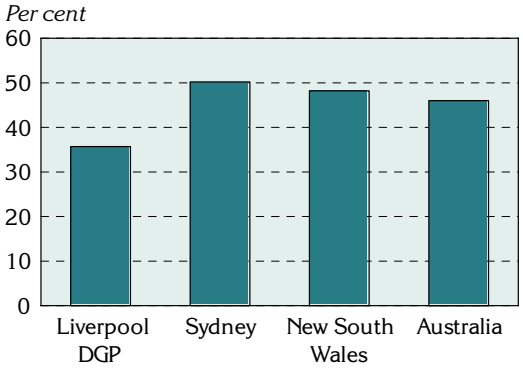
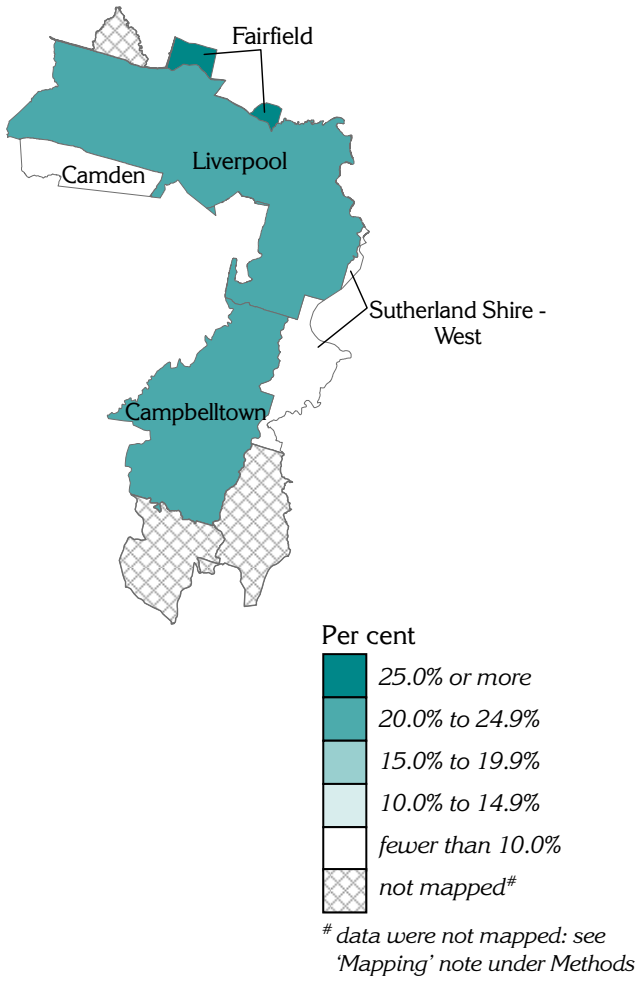


Table 2: Socio-demographic indicators, Liverpool DGP, Sydney, New South Wales and Australia, 2001

Indicator	Liverpool DGP		Sydney		New South Wales		Australia	
	No.	%	No.	%	No.	%	No.	%
Jobless families with children under 15 years old	4,313	20.2	66,526	15.6	121,409	17.6	357,563	17.4
Private health insurance (30 June)	57,288	35.7	2,000,802	50.2	3,062,382	48.2	8,671,106	46.0

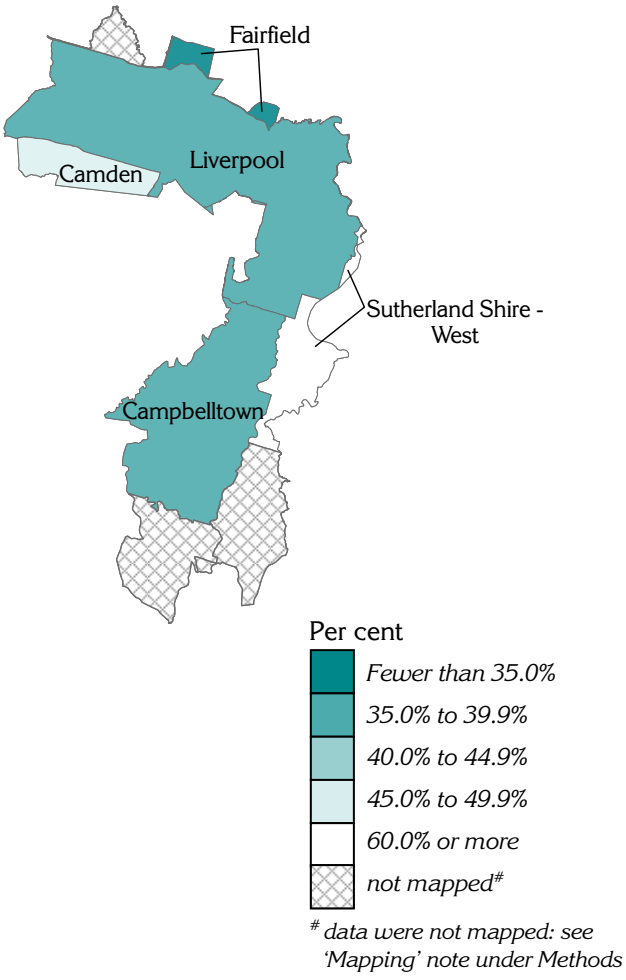
Details of the distribution of jobless families and of the population covered by private health insurance are shown by Statistical Local Area (SLA) in Maps 1 and 2, respectively.

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



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

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



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

GP services to residents of the Liverpool 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.

Just over two thirds (66.1%) of all unreferred attendances for residents of Liverpool DGP were provided in the Division (ie. by a GP with a provider number in the Division): this represented 761,658 GP unreferred attendances (Table 3). A further 17.3% of unreferred attendances to residents were provided by GPs with a provider number in Fairfield DGP, with 3.6% provided by GPs in Macarthur DGP.

Table 3: Patient flow – People living[1] in Liverpool DGP by Division where attendance occurred[2], 2003/04

Division		Unreferred attendances	
Number	Name	No.	%[3]
210	Liverpool DGP	761,658	66.1
211	Fairfield DGP	198,991	17.3
215	Macarthur DGP	41,893	3.6
205	Bankstown DGP	39,489	3.4
206	Western Sydney DGP (now WentWest & part Hawkesbury-Hills)	26,723	2.3
201	Central Sydney DGP	15,967	1.4
204	Canterbury DGP	14,489	1.3
209	St George DGP	12,512	1.1
237	Nepean DGP	7,677	0.7
202	Eastern Sydney DGP	5,942	0.5
Other	..	27,411	2.4
Total	..	**1,152,752**	**100.0**

[1] **Based on address in Medicare records**
[2] **Division of GP based on provider number**
[3] **Proportion of all unreferred attendances of patients with an address in Division 210 by Division in which attendance occurred**

More than three quarters (78.0%) of unreferred attendances provided by GPs with a provider number in Liverpool DGP were also to people living in the Division (ie. their Medicare address was in the Division) (Table 4). A further 7.7% of unreferred attendances by GPs in the Division were to residents from Fairfield DGP.

Table 4: GP catchment – Unreferred attendances provided by GPs[1] in Liverpool DGP by Division of patient address[2], 2003/04

Division		Unreferred attendances	
Number	Name	No.	%[3]
210	Liverpool DGP	761,658	78.0
211	Fairfield DGP	74,743	7.7
215	Macarthur DGP	61,911	6.3
205	Bankstown DGP	14,259	1.5
206	Western Sydney DGP (now WentWest & part Hawkesbury-Hills)	13,069	1.3
204	Canterbury DGP	5,212	0.5
237	Nepean DGP	5,011	0.5
209	St George DGP	4,930	0.5
201	Central Sydney DGP	4,824	0.5
Other	..	30,846	3.2
Total	..	**976,463**	**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 210 by Division of patient address**

Additional prevalence estimates: chronic diseases and risk factors combined

Please refer to the earlier *Population health profile of the Liverpool 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 Liverpool DGP who had asthma and were smokers, compared to Sydney, but fewer than for Australia as a whole (Figure 6, Table 5): that is, the prevalence rates per 1,000 population were lower than the national rates. However, there were higher rates in Liverpool DGP of people who had type 2 diabetes and were overweight/ obese, compared to both Sydney and Australia.

Figure 6: Estimates of selected chronic diseases and risk factors, Liverpool DGP, Sydney and Australia, 2001

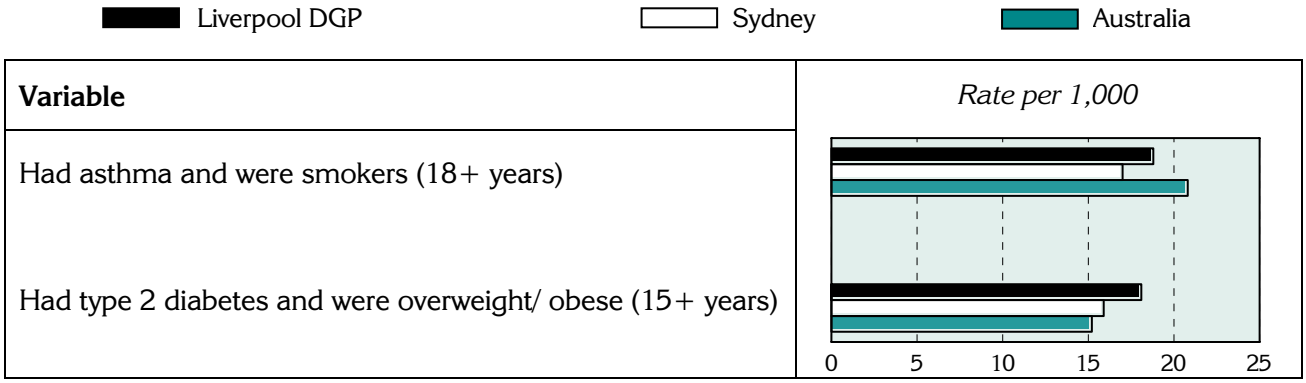


Table 5: Estimates of selected chronic diseases and risk factors, Liverpool DGP, Sydney, New South Wales and Australia, 2001

Variable	Liverpool DGP		Sydney		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]	3,211	18.8	72,198	17.0	126,542	19.7	397,734	20.8
Had type 2 diabetes & were overweight/ obese[4]	2,174	18.1	59,451	15.9	100,235	15.7	283,176	15.2

[1] No. is a weighted estimate of the number of people in Liverpool 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.

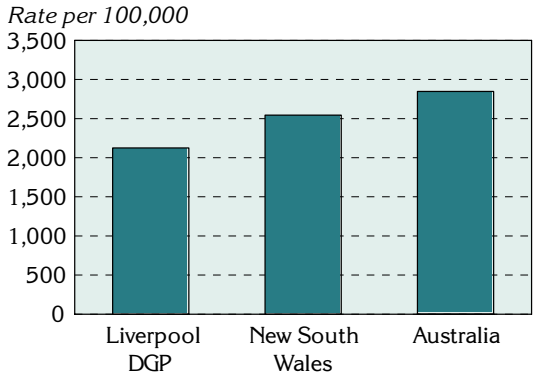
In 2001 to 2002, the 2,895 admissions from ambulatory care sensitive (ACS) conditions accounted for 7.2% of all admissions in the Liverpool DGP (Table 6, Figure 7), notably below the levels for both New South Wales (8.6%) and Australia (8.7%).

Table 6: Avoidable[1] and unavoidable hospitalisations, Liverpool DGP, New South Wales, and Australia, 2001/02

Category	Liverpool DGP			New South Wales			Australia		
	No.	Rate[2]	%	No.	Rate[2]	%	No.	Rate[2]	%
Avoidable[1]	2,895	2,125.3	7.2	170,066	2,543.8	8.6	552,786	2,847.5	8.7
Unavoidable	37,360	25,827.9	92.8	1,810,901	27,255.3	91.4	5,818,199	29,970.7	91.3
Total	**40,255**	**27,970.7**	**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 hospitalisations[1], Liverpool DGP, New South Wales and Australia, 2001/02



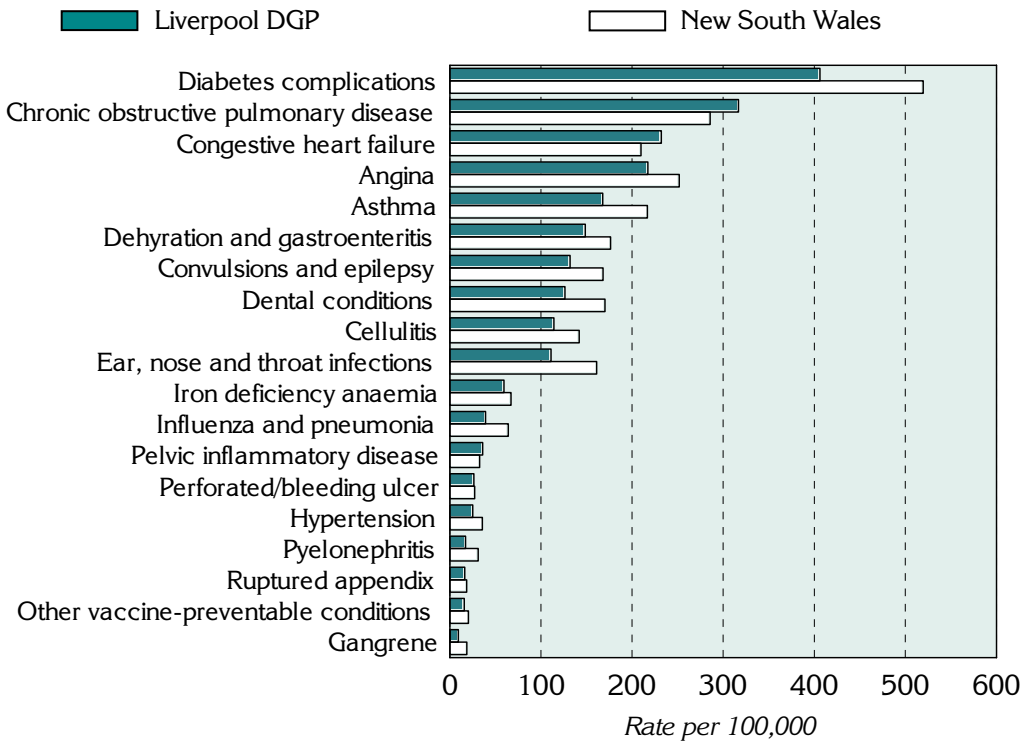
[1] **Admissions resulting from ACS conditions**

The rate of avoidable hospitalisations in Liverpool DGP is notably lower, a rate of 2,125.3 admissions per 100,000 population, compared to New South Wales (a rate of 2,543.8), and markedly below that for Australia (2,847.5).

Diabetes complications, chronic obstructive pulmonary disease, congestive heart failure and angina were the four conditions with the highest rates of avoidable hospitalisations in the Liverpool 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 convulsions and epilepsy have the highest rates of avoidable hospitalisations for the acute conditions.

Figure 8: Avoidable hospitalisations[1] by condition, Liverpool DGP and New South Wales, 2001/02



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

Table 7: Avoidable hospitalisations[1] by condition, Liverpool DGP, New South Wales and Australia, 2001/02

Sub-category/ condition	Liverpool DGP		New South Wales		Australia	
	No.	Rate[2]	No.	Rate[2]	No.	Rate[2]
Vaccine-preventable	**81**	**54.8**	**5,630**	**84.5**	**16,573**	**85.4**
Influenza and pneumonia	55	39.1	4,280	64.1	13,021	67.1
Other vaccine preventable	26	15.7	1,350	20.4	3,552	18.3
Chronic[3]	**1,669**	**1,424.9**	**106,803**	**1,587.0**	**352,545**	**1,816**
Diabetes complications	475	406.3	34,975	519.5	141,345	728.1
Iron deficiency anaemia	72	59.3	4,494	67.0	16,451	84.7
Hypertension	30	25.1	2,398	35.7	6,354	32.7
Congestive heart failure	216	232.1	14,270	209.7	42,447	218.6
Angina	240	217.4	16,987	251.8	49,963	257.4
Chronic obstructive pulmonary disease	333	316.9	19,359	285.6	54,853	282.6
Asthma	303	167.8	14,289	216.8	41,009	211.3
Acute	**1,198**	**737.7**	**62,543**	**946.0**	**200,913**	**1,035**
Dehydration and gastroenteritis	210	148.7	11,725	176.4	37,766	194.5
Convulsions and epilepsy	228	132.0	11,093	168.1	31,137	160.4
Ear, nose and throat infections	214	111.1	10,615	161.1	32,075	165.2
Dental conditions	227	126.3	11,196	170.3	43,667	224.9
Perforated/bleeding ulcer	29	26.4	1,830	27.1	5,795	29.9
Ruptured appendix	28	16.4	1,212	18.5	3,866	19.9
Pyelonephritis	27	17.2	2,038	31.0	7,386	38.0
Pelvic inflammatory disease	62	36.0	2,134	32.7	6,547	33.7
Cellulitis	162	114.2	9,451	142.0	28,204	145.3
Gangrene	11	9.4	1,249	18.6	4,470	23.0
Total avoidable hospitalisations[4]	**2,895**	**2,125.3**	**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 (72.7%) of all deaths in Liverpool DGP at ages 0 to 74 years over the period 1997 to 2001 are considered to be avoidable, marginally higher than the proportion for Sydney (71.3%) (Table 8). However, the rate in the Division is notably (14%) higher than that in Sydney, a differential of 1.14.

Deaths amenable to health care (amenable mortality, a subset of avoidable mortality) accounted for 29.4% of all deaths at ages 0 to 74 years in Liverpool DGP, compared to 28.6% in Sydney.

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

Mortality category	Liverpool DGP		Sydney		New South Wales		Australia	
	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]
Avoidable	1,371	228.4	36,709	199.5	66,151	213.6	189,845	211.8
% of total	**72.7**	**..**	**71.3**	**..**	**71.4**	**..**	**71.5**	**..**
(Amenable)	(555)	(94.4)	(14,736)	(80.6)	(26,374)	(85.0)	(76,249)	(85.1)
(% of total)	(29.4)	(..)	**(28.6)**	**(..)**	**(28.5)**	**(..)**	**(28.7)**	**(..)**
Unavoidable	515	86.7	14,768	80.6	26,468	85.3	75,582	84.3
% of total	**27.3**	**..**	**28.7**	**..**	**28.6**	**..**	**28.5**	**..**
Total mortality	**1,885**	**315.1**	**51,477**	**280.1**	**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. Liverpool DGP's rate of avoidable mortality for males was 294.4 deaths per 100,000 males, more than one and a half times the rate of 163.6 for females. Similarly, the rate of amenable mortality for males in the Division was higher, 103.0 compared to 85.7 for females, a rate ratio of 1.20 (Figure 9, Table 9).

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

Note: the different scales

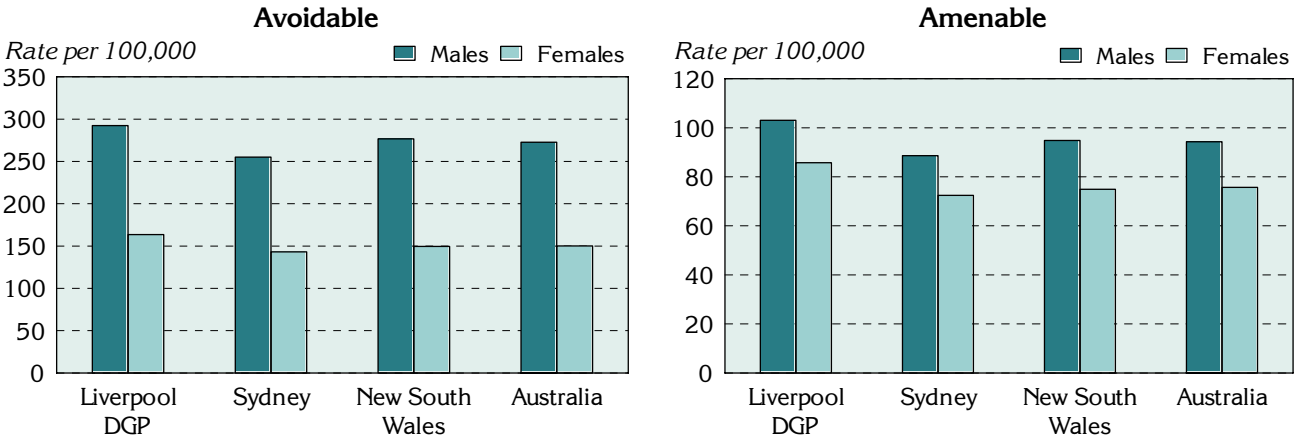


Table 9: Avoidable and amenable mortality (0 to 74 years) by sex, Liverpool DGP, Sydney, New South Wales and Australia, 1997 to 2001

Mortality category and sex	Liverpool DGP		Sydney		New South Wales		Australia	
	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]
Avoidable								
Males	892	292.4	23,505	255.1	43,074	276.8	123,026	272.6
Females	479	163.6	13,204	143.2	23,077	149.6	66,819	150.1
Total	**1,371**	228.4	**36,709**	**199.5**	**66,151**	**213.6**	**189,845**	**211.8**
Rate ratio–M:F[2]	..	**1.79****	..	**1.78****	..	**1.85****	..	**1.82****
Amenable								
Males	304	103.0	8,068	88.6	14,811	94.8	42,568	94.3
Females	252	85.7	6,667	72.4	11,562	74.9	33,681	75.7
Total	**555**	94.4	**14,736**	**80.6**	**26,374**	**85.0**	**76,249**	**85.1**
Rate ratio–M:F[2]	..	**1.20***	..	**1.22****	..	**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 Liverpool DGP, Sydney, 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 72.8% of total YLL (0 to 74 years) for Liverpool DGP, higher than the 71.7% for Sydney. Similarly, the proportion of YLL from amenable mortality for Liverpool DGP (29.0%) was higher than that for Sydney (28.0%).

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

Mortality category	Liverpool DGP		Sydney		New South Wales		Australia	
	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Avoidable	25,475	72.8	644,323	71.7	1,147,183	71.8	3,327,375	71.9
(Amenable)	(10,129)	(29.0)	(251,183)	(28.0)	(444,143)	(27.8)	(1,298,430)	(28.0)
Unavoidable	9,494	27.1	254,314	28.3	451,496	28.2	1,303,289	28.1
Total	**34,970**	**100.0**	**898,637**	**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 1,509.0 deaths per 100,000 population in Liverpool 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 344.8 in Liverpool Division.

Table 11: Avoidable and amenable mortality by age, Liverpool DGP, Sydney, New South Wales and Australia, 1997 to 2001

Mortality category and age (years)	Liverpool DGP		Sydney		New South Wales		Australia	
	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]
Avoidable								
0-14	79	37.1	1,098	26.6	1,836	27.5	5,669	28.8
15-24	79	65.0	1,303	44.9	2,241	50.9	7,045	52.8
25-44	181	67.5	4,802	74.3	8,119	82.9	24,356	83.9
45-64	506	344.8	12,603	289.9	22,358	311.1	64,282	304.9
65-74	527	1,509.0	16,903	1,307.3	31,597	1,375.8	88,493	1,358.1
Total	**1,371**	**228.4**	**36,709**	**199.5**	**66,151**	**213.6**	**189,845**	**211.8**
Amenable								
0-24	70	19.8	1,013	14.5	1,658	14.8	5,083	15.4
25-44	43	16.5	1,093	17.2	1,878	19.2	5,946	20.5
45-64	211	144.2	5,384	123.9	9,444	131.4	27,464	130.3
65-74	232	664.3	7,245	559.0	13,394	582.9	37,756	579.4
Total	**555**	**94.4**	**14,736**	**80.6**	**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 Liverpool DGP were for cardiovascular diseases, with a rate of 82.0 deaths per 100,000 population, and cancer, 71.1 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 57.3 per 100,000 population and 24.5 per 100,000, respectively.

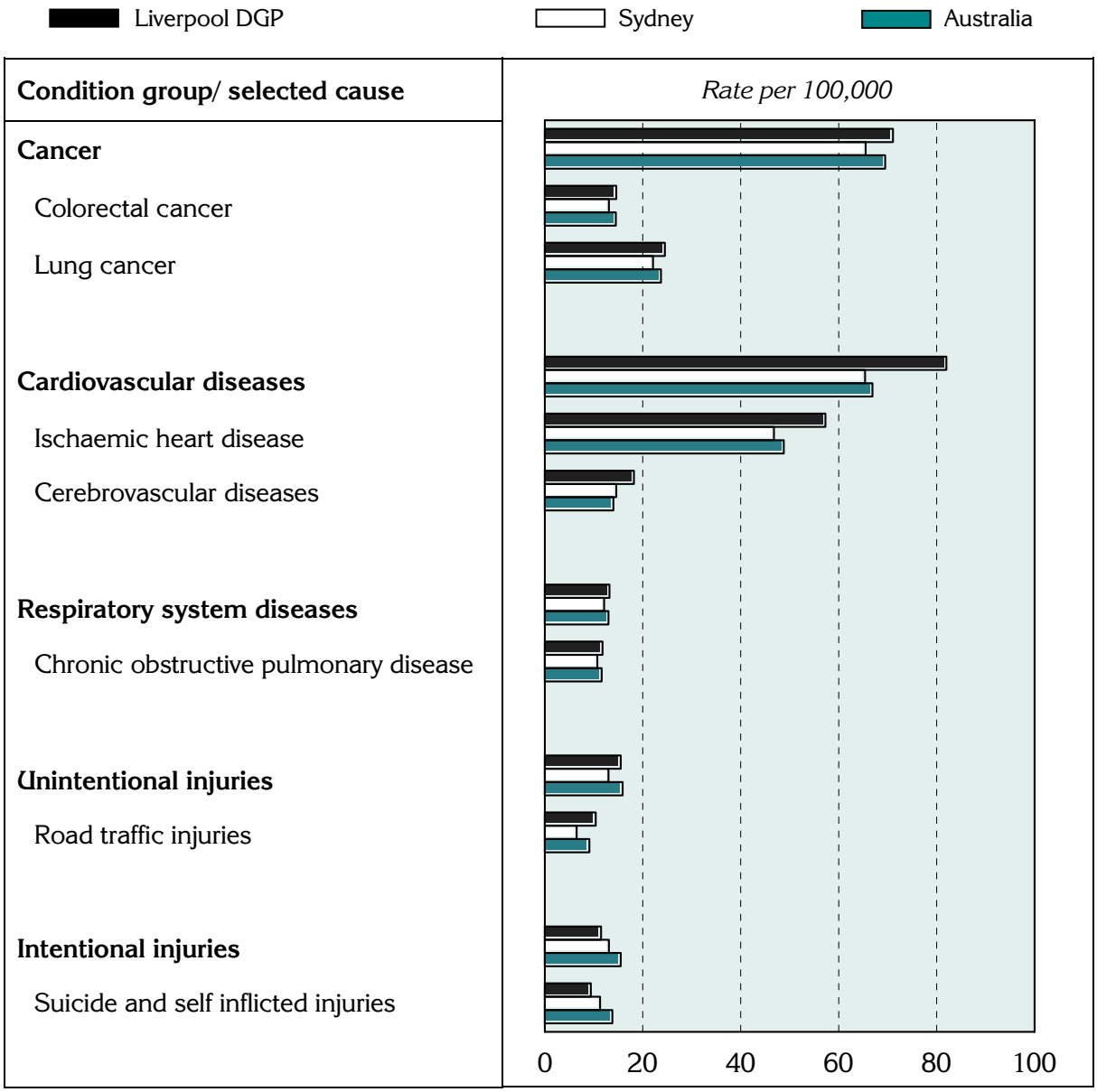
Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Liverpool DGP, Sydney, New South Wales and Australia, 1997 to 2001

Condition group/ selected cause	Liverpool DGP		Sydney		New South Wales		Australia	
	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]
Cancer	**401**	**71.1**	**11,919**	**65.5**	**21,158**	**68.1**	**62,338**	**69.5**
Colorectal cancer	81	14.6	2,382	13.1	4,318	13.9	13,008	14.5
Lung cancer	134	24.5	3,983	22.1	7,297	23.4	21,208	23.7
Cardiovascular diseases	**444**	**82.0**	**11,824**	**65.4**	**21,925**	**70.3**	**59,945**	**66.9**
Ischaemic heart disease	311	57.3	8,461	46.8	15,935	51.1	43,712	48.8
Cerebrovascular diseases	98	18.2	2,641	14.6	4,656	14.9	12,558	14.0
Respiratory system diseases	**69**	**13.2**	**2,177**	**12.1**	**4,313**	**13.8**	**11,612**	**13.0**
Chronic obstructive pulmonary disease	60	11.8	1,916	10.7	3,882	12.4	10,395	11.6
Unintentional injuries	**119**	**15.5**	**2,513**	**13.0**	**4,540**	**15.0**	**14,224**	**15.9**
Road traffic injuries	80	10.4	1,249	6.5	2,528	8.4	8,138	9.1
Intentional injuries	**88**	**11.5**	**2,558**	**13.1**	**4,497**	**14.9**	**13,891**	**15.5**
Suicide and self inflicted injuries	72	9.4	2,211	11.3	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 above those for Sydney for all but intentional injuries and suicide and self-inflicted injuries: and above or consistent with those for Australia for all but intentional injuries and suicide and self-inflicted injuries (Figure 10).

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



Notes on the data

Data sources and limitations

General

References to 'Sydney' relate to 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 (i.e. jobless families, people with health insurance): these areas are mapped with a pattern.

Statistical geography of the Liverpool 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 the Liverpool Division, small proportions of Camden, Campbelltown and Fairfield SLAs lie within the Division, as does the majority of Liverpool (Table 14).

Table 14: SLAs and population in Liverpool 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
11450	Camden	10.6	5,448
11500	Campbelltown	0.2	363
12850	Fairfield	4.9	9,246
14900	Liverpool	94.7	161,154
17152	Sutherland	0.4	449

* **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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