# Population health profile of the

# **Canterbury**

# Division of General Practice: supplement

Population Profile Series: No. 4a

**DOING** 

March 2007







## Copyright

#### © Commonwealth of Australia 2007

This work may be reproduced and used subject to acknowledgement of the source of any material so reproduced.

### National Library of Australia Cataloguing in Publication entry

Population health profile of the Canterbury Division of General Practice: supplement.

ISBN 9 78073089 6050 (web).

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

362.1099441

ISSN 1833-0452 Population Profile Series

### Public Health Information Development Unit, The University of Adelaide A Collaborating Unit of the Australian Institute of Health and Welfare

This profile was produced by PHIDU, the Public Health Information Development Unit at The University of Adelaide, South Australia. The work was funded under a grant from the Australian Government Department of Health and Ageing. The views expressed in this profile are solely those of the authors and should not be attributed to the Department of Health and Ageing or the Minister for Health and Ageing.

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.

#### Suggested citation:

PHIDU. (2007) *Population health profile of the Canterbury Division of General Practice: supplement.* Population Profile Series: No. 4a. Public Health Information Development Unit (PHIDU), Adelaide.

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

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

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

Published by Public Health Information Development Unit, The University of Adelaide

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

# Population health profile of the Canterbury Division of General Practice: supplement

This profile is a supplement to the *Population health profile of the Canterbury Division of General Practice*, dated November 2005, available from <a href="www.publichealth.gov.au">www.publichealth.gov.au</a>. This supplement includes an update of the population of the Canterbury 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:

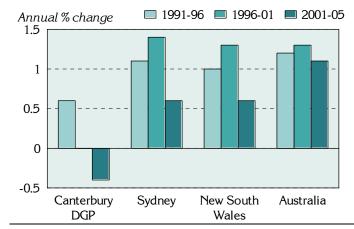
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive conditions
- 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 Canterbury Division had an Estimated Resident Population of 142,090 at 30 June 2005.

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



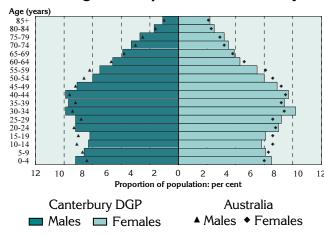
Over the five years from 1991 to 1996, the Division's population increased by 0.6% on average each year, lower than in Sydney (1.1%) and New South Wales (1.0%). From 1996 to 2001, there was no change in the Division's population, compared to increases of 1.4% in Sydney and 1.3% for New South Wales. The Division's population decreased by 0.4% per year between 2001 to 2005, compared to annual increases of 0.6% for Sydney and New South Wales, and 1.1% for Australia.

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

Age group	Canterbu	ry DGP	Austral	ia
(years)	No.	%	No.	%
0-14	27,348	19.2	3,978,221	19.6
15-24	18,854	13.3	2,819,834	13.9
25-44	43,522	30.6	5,878,107	28.9
45-64	32,591	22.9	4,984,446	24.5
65-74	10,313	7.3	1,398,831	6.9
75-84	7,130	5.0	954,143	4.7
85+	2,332	1.6	315,027	1.5
Total	142,090	100.0	20,328,609	100.0

As shown in the accompanying table and the age-sex pyramid below, Canterbury DGP had a slightly higher proportion of the population aged 25 to 44 years (30.6%) compared to Australia as a whole (28.9%). Conversely, the proportion of the Division's population aged 45 to 64 years (22.9%) was slightly lower compared to Australia (24.2%).

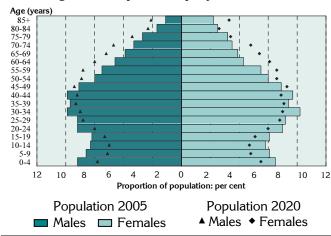
Figure 2: Population in Canterbury DGP and Australia, by age and sex, 2005



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 4 years, and overall lower proportions aged 5 to 19 years (most pronounced at ages 10 to 19 years);
- from 20 to 44 years higher proportions of males from 25 years and females from 20 years; and
- lower proportions of males and females from 45 to 64 years, followed by higher proportions above these ages.

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



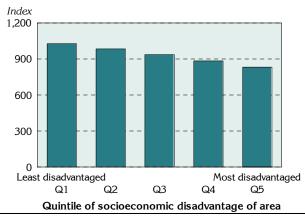
The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- at younger ages lower proportions of males and females aged 0 to 44 years;
- at ages 45 to 74 years higher proportions of males and females (most pronounced at ages 55 to 74 years); and
- a slightly higher proportion of males aged 75 years and over, and females aged 85 year and over.

# Additional socio-demographic indicators

Please refer to the earlier *Population health profile of the Canterbury Division of General Practice*, dated November 2005, available from <a href="https://www.publichealth.gov.au">www.publichealth.gov.au</a>, for other socio-demographic indicators.

Figure 4: Index of Relative Socio-Economic Disadvantage, Canterbury DGP, 2001



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

The Canterbury DGP has an index score of 933, below the score for Australia of 1000: this score varies across the Division, from a score of 907 in the most disadvantaged areas to 1027 in the least disadvantaged areas.

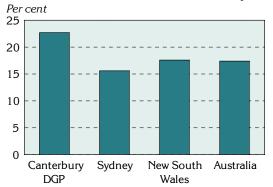
Note: each 'quintile' comprises approximately 20% of the population of the Division.

A new indicator, produced for the first time at the 2001 ABS Census, shows the number of jobless families with children under 15 years of age. There were more jobless families in the Canterbury DGP (22.7%), 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 (40.0%), compared to Sydney (50.2%) (Figure 5, Table 2).

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

### Jobless families with children under 15 years old



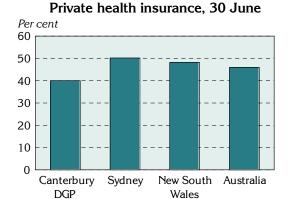
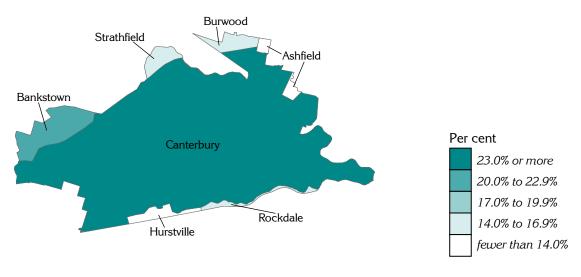


Table 2: Socio-demographic indicators, Canterbury DGP, Sydney, New South Wales and Australia, 2001

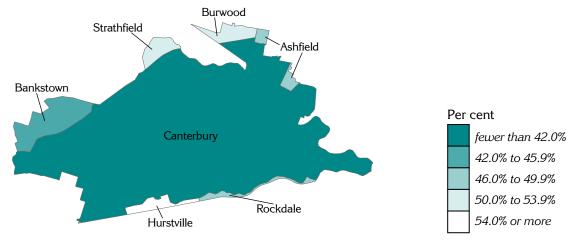
Indicator	Canterbury DGP		Sydney		New South Wales		Australia	
	No.	%	No.	%	No.	%	No.	%
Jobless families with children under 15 years old	3,443	22.7	66,526	15.6	121,409	17.6	357,563	17.4
Private health insurance (30 June)	55,103	40.0	2,000,802	50.2	3,062,382	48.2	8,671,106	46.0

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

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



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



# GP services to residents of the Canterbury 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.

Over half (57.9%)of all unreferred attendances for residents of Canterbury DGP were provided in the Division (ie. by a GP with a provider number in the Division): this represented 585,725 GP unreferred attendances (Table 3). A further 16.3% of unreferred attendances to residents were provided by GPs with a provider number in Central Sydney DGP.

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

Division		Unreferred a	attendances
Number	Name	No.	% <sup>3</sup>
204	Canterbury DGP	585,725	57.9
201	Central Sydney DGP	164,755	16.3
205	Bankstown DGP	104,712	10.3
209	St George DGP	75,287	7.4
202	Eastern Sydney DGP	17,082	1.7
206	Western Sydney DGP (now WentWest & part Hawkesbury-Hills)	14,417	1.4
203	South East Sydney DGP	9,896	1.0
211	Fairfield DGP	8,932	0.9
210	Liverpool DGP	5,212	0.5
212	Hornsby Ku-ring-gai Ryde DGP	4,729	0.5
Other	"	21,452	2.1
Total		1,012,199	100.0

<sup>&</sup>lt;sup>1</sup> Based on address in Medicare records

Almost two thirds (61.6%) of unreferred attendances provided by GPs with a provider number in Canterbury DGP were also to people living in the Division (ie. their Medicare address was in the Division) (Table 4). A further 11.4% of unreferred attendances by GPs in the Division were to residents from Bankstown DGP.

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

Division		Unreferred a	attendances
Number	Name	No.	%³
204	Canterbury DGP	585,725	61.6
205	Bankstown DGP	108,681	11.4
209	St George DGP	78,292	8.2
201	Central Sydney DGP	76,514	8.0
206	Western Sydney DGP (now WentWest & part Hawkesbury-Hills)	22,639	2.4
210	Liverpool DGP	14,489	1.5
211	Fairfield DGP	9,924	1.0
214	Sutherland DGP	8,781	0.9
212	Hornsby Ku-ring-gai Ryde DGP	8,547	0.9
215	Macarthur DGP	6,921	0.7
Other		30,539	3.2
Total		951,052	100.0

<sup>&</sup>lt;sup>1</sup> Division of GP based on provider number

<sup>&</sup>lt;sup>2</sup> Division of GP based on provider number

<sup>&</sup>lt;sup>3</sup> Proportion of all unreferred attendances of patients with an address in Division 204 by Division in which attendance occurred

<sup>&</sup>lt;sup>2</sup> Based on address in Medicare records

<sup>&</sup>lt;sup>3</sup> Proportion of all unreferred attendances to GPs with a provider number in Division 204 by Division of patient address

# Additional prevalence estimates: chronic diseases and risk factors combined

Please refer to the earlier *Population health profile of the Canterbury Division of General Practice*, dated November 2005, available from <a href="www.publichealth.gov.au">www.publichealth.gov.au</a>, 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 fewer people in Canterbury DGP who had asthma and were smokers, compared to Sydney or Australia as a whole (Figure 6, Table 5): that is, the prevalence rates per 1,000 population were lower. However, there was a higher rate of people in Canterbury DGP who had type 2 diabetes and were overweight/ obese, compared to Sydney or Australia.

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

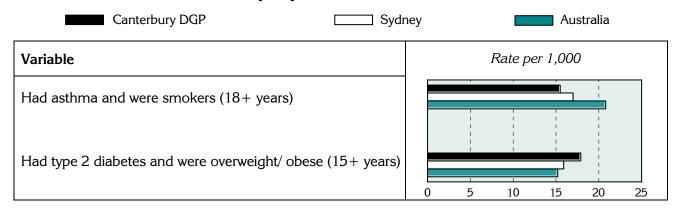


Table 5: Estimates of selected chronic diseases and risk factors, Canterbury DGP, Sydney, New South Wales and Australia, 2001

Variable	Canterbury DGP		Sydı	Sydney		New South Wales		Australia	
•	No. <sup>1</sup>	Rate <sup>2</sup>	No.1	Rate <sup>2</sup>	No. <sup>1</sup>	Rate <sup>2</sup>	No. <sup>1</sup>	Rate <sup>1</sup>	
Had asthma and smoked <sup>3</sup>	2,233	15.5	72,198	17.0	126,542	19.7	397,734	20.8	
Had type 2 diabetes & were overweight/ obese <sup>4</sup>	2,432	17.9	59,451	15.9	100,235	15.7	283,176	15.2	

<sup>&</sup>lt;sup>1</sup> No. is a weighted estimate of the number of people in Canterbury DGP reporting these chronic conditions/ with these risk factors and is derived from synthetic predictions from the 2001 NHS

<sup>&</sup>lt;sup>2</sup> Rate is the indirectly age-standardised rate per 1,000 population

<sup>&</sup>lt;sup>3</sup> Population aged 18 years and over

<sup>&</sup>lt;sup>4</sup> Population aged 15 years and over

# Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive conditions

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

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

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

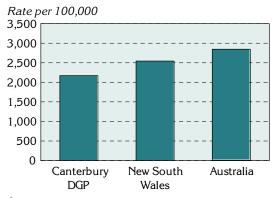
In 2001 to 2002, the 3,194 admissions from ambulatory care sensitive (ACS) conditions accounted for 7.7% of all admissions in the Canterbury DGP (Table 6, Figure 7), notably fewer than for both New South Wales (8.6%) and Australia (8.7%).

Table 6: Avoidable<sup>1</sup> and unavoidable hospitalisations, Canterbury DGP, New South Wales, and Australia, 2001/02

Category	Canterbury DGP			New	South Wale	es	Australia			
	No.	Rate <sup>2</sup>	%	No.	Rate <sup>2</sup>	%	No.	Rate <sup>2</sup>	%	
Avoidable <sup>1</sup>	3,194	2,172.8	7.7	170,066	2,543.8	8.6	552,786	2,847.5	8.7	
Unavoidable	38,407	26,191.7	92.3	1,810,901	27,255.3	91.4	5,818,199	29,970.7	91.3	
Total	41,601	28,363.7	100.0	1,980,967	29,798.8	100.0	6,370,985	32,818.2	100.0	

<sup>&</sup>lt;sup>1</sup> Admissions resulting from ACS conditions

Figure 7: Avoidable hospitalisations<sup>1</sup>, Canterbury DGP, New South Wales and Australia, 2001/02



The rate of avoidable hospitalisations in Canterbury DGP is markedly lower, a rate of 2,172.8 admissions per 100,000 population, compared to both New South Wales (a rate of 2,543.8), and Australia (2,847.5).

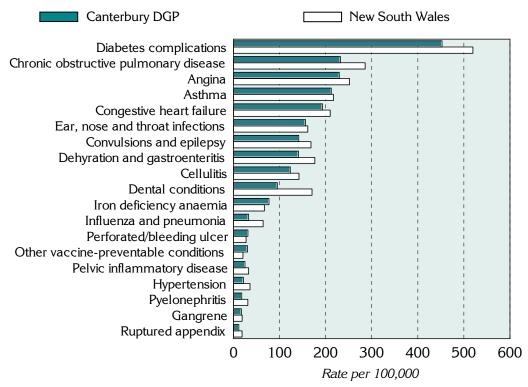
Diabetes complications, chronic obstructive pulmonary disease, angina and asthma were the four conditions with the highest rates of avoidable hospitalisations in the Canterbury DGP (Figure 8, Table 7).

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. Ear, nose and throat infections, convulsions and epilepsy; and dehydration and gastroenteritis have the highest rates of avoidable hospitalisations for the acute conditions.

<sup>&</sup>lt;sup>2</sup> Rate is the indirectly age-standardised rate per 100,000 population

<sup>&</sup>lt;sup>1</sup> Admissions resulting from ACS conditions

Figure 8: Avoidable hospitalisations<sup>1</sup> by condition, Canterbury DGP and New South Wales, 2001/02



<sup>1</sup> Admissions resulting from ACS conditions: excludes nutritional deficiencies as less than ten admissions

Table 7: Avoidable hospitalisations<sup>1</sup> by condition, Canterbury DGP, New South Wales and Australia, 2001/02

Sub-category/ condition	Canterb	ury DGP	New So	uth Wales	Austr	alia
	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>	No.	Rate <sup>2</sup>
Vaccine-preventable	93	63.0	5,630	84.5	16,573	85.4
Influenza and pneumonia	48	32.7	4,280	64.1	13,021	67.1
Other vaccine preventable	45	30.3	1,350	20.4	3,552	18.3
Chronic <sup>3</sup>	2,083	1,417.0	106,803	1,587.0	352,545	1,816
Diabetes complications	665	452.6	34,975	519.5	141,345	728.1
Iron deficiency anaemia	112	76.9	4,494	67.0	16,451	84.7
Hypertension	31	21.2	2,398	35.7	6,354	32.7
Congestive heart failure	284	192.9	14,270	209.7	42,447	218.6
Angina	335	229.4	16,987	251.8	49,963	257.4
Chronic obstructive pulmonary disease	344	231.9	19,359	285.6	54,853	282.6
Asthma	312	212.1	14,289	216.8	41,009	211.3
Acute	1,116	758.6	62,543	946.0	200,913	1,035
Dehydration and gastroenteritis	206	141.0	11,725	176.4	37,766	194.5
Convulsions and epilepsy	209	141.5	11,093	168.1	31,137	160.4
Ear, nose and throat infections	234	156.2	10,615	161.1	32,075	165.2
Dental conditions	138	94.9	11,196	170.3	43,667	224.9
Perforated/bleeding ulcer	46	31.1	1,830	27.1	5,795	29.9
Ruptured appendix	16	11.4	1,212	18.5	3,866	19.9
Pyelonephritis	26	17.8	2,038	31.0	7,386	38.0
Pelvic inflammatory disease	36	24.7	2,134	32.7	6,547	33.7
Cellulitis	180	123.1	9,451	142.0	28,204	145.3
Gangrene	25	16.9	1,249	18.6	4,470	23.0
Total avoidable hospitalisations <sup>4</sup>	3,194	2,172.8	170,066	2,543.8	552,786	2,847.5

<sup>&</sup>lt;sup>1</sup> Admissions resulting from ACS conditions

<sup>&</sup>lt;sup>2</sup> Rate is the indirectly age-standardised rate per 100,000 population

<sup>&</sup>lt;sup>3</sup> Excludes nutritional deficiencies as less than ten admissions

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

# Avoidable mortality

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

For information on the avoidable and amenable mortality conditions and ICD codes included in the analysis in this section, please refer to the *Australian and New Zealand Atlas of Avoidable Mortality*, available from <a href="https://www.publichealth.gov.au">www.publichealth.gov.au</a>.

Almost three quarters (71.7%) of all deaths in Canterbury 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). Deaths amenable to health care (amenable mortality, a subset of avoidable mortality) accounted for 28.9% of all deaths at ages 0 to 74 years in Canterbury DGP, compared to 28.6% in Sydney.

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

Mortality category	Canterbury DGP		Sydr	ney		New South Wales		Australia	
	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	
Avoidable	1,433	201.0	36,709	199.5	66,151	213.6	189,845	211.8	
% of total	71.7		71.3		71.4	••	71.5		
(Amenable)	(578)	(80.9)	(14,736)	(80.6)	(26,374)	(85.0)	(76,249)	(85.1)	
(% of total)	(28.9)	()	(28.6)	()	(28.5)	()	(28.7)	()	
Unavoidable	565	79.1	14,768	80.6	26,468	85.3	75,582	84.3	
% of total	28.3		28.7		28.6	••	28.5	••	
Total mortality	1,998	280.1	51,477	280.1	92,619	299.0	265,427	296.1	
%	100.0		100.0		100.0		100.0		

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

Rates of avoidable mortality were higher for males than for females in each of the comparator areas. Canterbury DGP's rate of avoidable mortality for males was 256.4 deaths per 100,000 males, almost one and a half times the rate of 144.8 for females. Similarly, the rate of amenable mortality for males in the Division was higher, 89.2, compared to 72.5 for females, a rate ratio of 1.77 (Figure 9, Table 9).

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

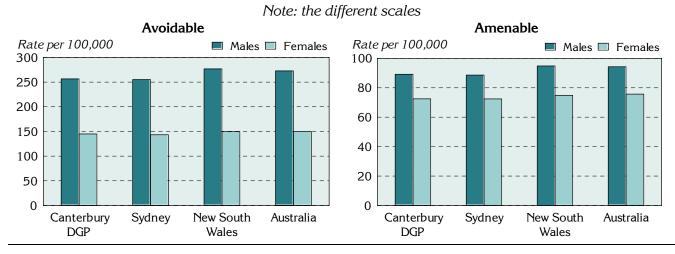


Table 9: Avoidable and amenable mortality (0 to 74 years) by sex, Canterbury DGP, Sydney, New South Wales and Australia, 1997 to 2001

Mortality category and sex	Canterbury DGP		Sydr	Sydney		New South Wales		Australia	
	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	
Avoidable									
Males	926	256.4	23,505	255.1	43,074	276.8	123,026	272.6	
Females	507	144.8	13,204	143.2	23,077	149.6	66,819	150.1	
Total	1,433	201.0	36,709	199.5	66,151	213.6	189,845	211.8	
Rate ratio-M:F <sup>2</sup>	••	1.77**		1.78**		1.85**		1.82**	
Amenable									
Males	324	89.2	8,068	88.6	14,811	94.8	42,568	94.3	
Females	254	72.5	6,667	72.4	11,562	74.9	33,681	75.7	
Total	578	80.9	14,736	80.6	26,374	85.0	76,249	85.1	
Rate ratio-M:F <sup>2</sup>		1.23*		1.22**		1.27**		1.25**	

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

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

The numbers of YLL for Canterbury DGP, Sydney, New South Wales and Australia over the period under analysis are shown in Table 10 by mortality category. However, given the substantial variation in the populations of these areas, a comparison of the proportion of YLL for each area is also shown.

YLL from avoidable mortality accounted for 71.7% of total YLL (0 to 74 years) for Canterbury DGP, consistent with Sydney, 71.7%. Similarly, the proportion of YLL from amenable mortality of 28.1% for Canterbury DGP was consistent with the 28.0% for Sydney.

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

Mortality category	Canterbury DGP		Sydn	Sydney		New South Wales		Australia	
	No.	% of	No.	% of	No.	% of	No.	% of	
		total		total		total		total	
Avoidable	24,761	71.7	644,323	71.7	1,147,183	71.8	3,327,375	71.9	
(Amenable)	(9,716)	(28.1)	(251,183)	(28.0)	(444,143)	(27.8)	(1,298,430)	(28.0)	
Unavoidable	9,760	28.3	254,314	28.3	451,496	28.2	1,303,289	28.1	
Total	34,521	100.0	898,637	100.0	1,598,679	100.0	4,630,664	100.0	

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

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

In each of the areas in Table 11, the majority of avoidable mortality at ages 0 to 74 years occurred in the 65 to 74 year age group (Table 11), with 1,286.9 deaths per 100,000 population in Canterbury 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 305.1 in Canterbury Division.

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

Mortality category and age (years)	Canterbury DGP		Syd	Sydney		South les	Austi	ralia
	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>
Avoidable								
0-14	56	35.1	1,098	26.6	1,836	27.5	5,669	28.8
15-24	52	53.5	1,303	44.9	2,241	50.9	7,045	52.8
25-44	145	62.6	4,802	74.3	8,119	82.9	24,356	83.9
45-64	479	305.1	12,603	289.9	22,358	311.1	64,282	304.9
65-74	702	1,286.9	16,903	1,307.3	31,597	1,375.8	88,493	1,358.1
Total	1,433	201.0	36,709	199.5	66,151	213.6	189,845	211.8
Amenable								
0-24	44	16.4	1,013	14.5	1,658	14.8	5,083	15.4
25-44	33	14.7	1,093	17.2	1,878	19.2	5,946	20.5
45-64	196	125.1	5,384	123.9	9,444	131.4	27,464	130.3
65-74	305	559.6	7,245	559.0	13,394	582.9	37,756	579.4
Total	578	80.9	14,736	80.6	26,374	85.0	76,249	85.1

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

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

The highest rates of avoidable mortality for the selected major condition groups in the Canterbury DGP were for cardiovascular diseases, with a rate of 68.3 deaths per 100,000 population, and cancer, 61.4 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 49.3 per 100,000 population and 24.2 per 100,000, respectively.

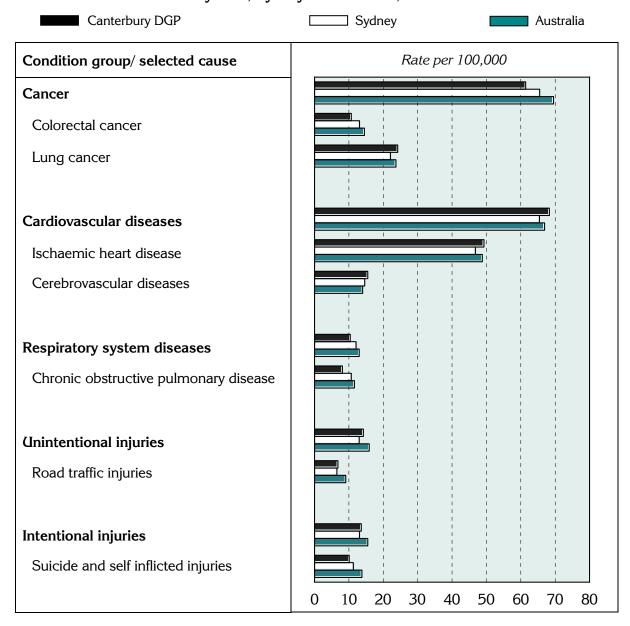
Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Canterbury DGP, Sydney, New South Wales and Australia, 1997 to 2001

Condition group/ selected cause	Canterbu	ıry DGP	Sydr	ney	New S Wal		Austi	ralia
	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>	No.	Rate <sup>1</sup>
Cancer	437	61.4	11,919	65.5	21,158	68.1	62,338	69.5
Colorectal cancer	77	10.7	2,382	13.1	4,318	13.9	13,008	14.5
Lung cancer	175	24.2	3,983	22.1	7,297	23.4	21,208	23.7
Cardiovascular diseases	494	68.3	11,824	65.4	21,925	70.3	59,945	66.9
Ischaemic heart disease	356	49.3	8,461	46.8	15,935	51.1	43,712	48.8
Cerebrovascular diseases	112	15.5	2,641	14.6	4,656	14.9	12,558	14.0
Respiratory system diseases	76	10.4	2,177	12.1	4,313	13.8	11,612	13.0
Chronic obstructive pulmonary disease	59	8.1	1,916	10.7	3,882	12.4	10,395	11.6
Unintentional injuries	98	14.2	2,513	13.0	4,540	15.0	14,224	15.9
Road traffic injuries	46	6.8	1,249	6.5	2,528	8.4	8,138	9.1
Intentional injuries	94	13.6	2,558	13.1	4,497	14.9	13,891	15.5
Suicide and self inflicted injuries	70	10.1	2,211	11.3	3,941	13.0	12,393	13.8

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

Rates in the Division were generally lower than those for Sydney, but less so when compared with Australia (Figure 10).

Figure 10: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Canterbury 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 Estimated Resident Population, ABS, 30 June 2005; Population Projections, ABS, 30 June 2020 (unpublished) <sup>1</sup>			
Figure 3				
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)			

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

### Methods

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

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 Canterbury DGP

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

Statistical Local Areas (SLAs) are defined by the Australian Bureau of Statistics to produce areas for the presentation and analysis of data. In Canterbury DGP, the majority of the Canterbury SLA, and parts of the other SLAs shown in Table 14 comprise the Division.

Table 14: SLAs and population in Canterbury DGP, 2005 on 2001 boundaries

SLA code	SLA name	Per cent of the SLA's population in the Division <sup>*</sup>	Estimate of the SLA's 2005 population in the Division
10150	Ashfield	2.7	1,087
10350	Bankstown	4.2	7,381
11300	Burwood	9.5	2,945
11550	Canterbury	90.5	121,411
14150	Hurstville	8.4	6,411
16650	Rockdale	1.4	1,351
17100	Strathfield	4.8	1,505

<sup>\*</sup> Proportions are approximate and are known to be incorrect in some cases, due to errors in the concordance used to allocate CDs to form postal areas

# Acknowledgements

Funding for these profiles was provided by the Population Health Division of the Department of Health and Ageing (DoHA).

# Further developments and updates

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

### PHIDU contact details

For general comments, data issues or enquiries re information on the web site, please contact PHIDU:

Phone: 08-8303 6236 or e-mail: PHIDU@publichealth.gov.au