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

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Population health profile of the North East Victorian Division of General Practice: supplement

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

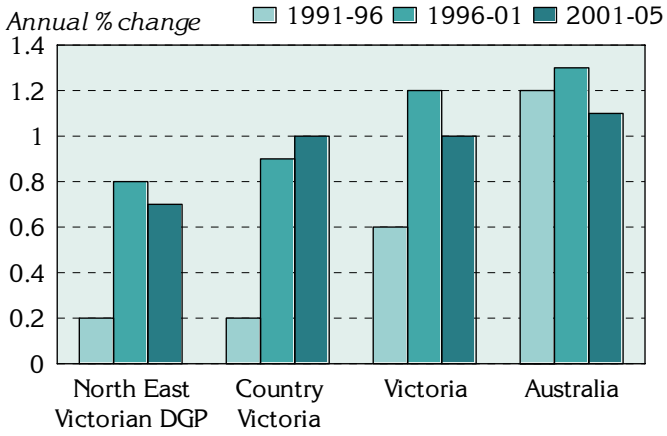
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances – patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive 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 North East Victorian Division had an Estimated Resident Population of 107,291 at 30 June 2005.

Figure 1: Annual population change, North East Victorian DGP, country Victoria, Victoria and Australia, 1991 to 1996, 1996 to 2001 and 2001 to 2005



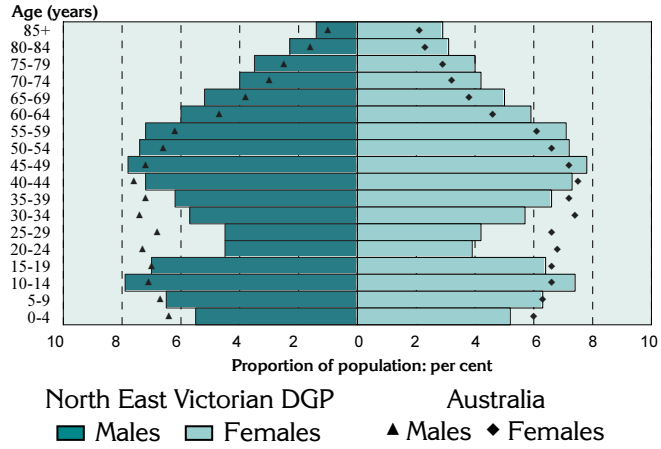
Over the five years from 1991 to 1996, the Division's population increased by 0.2% on average each year, the same as for country Victoria (0.2%), but lower than for Victoria (0.6%) and Australia as a whole (1.2%). From 1996 to 2001, the annual percentage increase (0.8%) was higher, but again below that for country Victoria (0.9%) and Victoria (1.2%). The growth rate of 0.7% per year on average from 2001 to 2005 was below the annual increases for country Victoria and Victoria (1.0%) and Australia (1.1%).

Table 1: Population by age, North East Victorian DGP and Australia, 2005

Age group (years)	North East Victorian DGP		Australia	
	No.	%	No.	%
0-14	20,853	19.4	3,978,221	19.6
15-24	11,676	10.9	2,819,834	13.9
25-44	25,434	23.7	5,878,107	28.9
45-64	30,254	28.2	4,984,446	24.5
65-74	9,854	9.2	1,398,831	6.9
75-84	6,917	6.4	954,143	4.7
85+	2,303	2.1	315,027	1.5
Total	**107,291**	**100.0**	**20,328,609**	**100.0**

As shown in the accompanying table and the age-sex pyramid below (Figure 2), the North East Victorian DGP had markedly fewer people aged 15 to 24 (10.9%) and 25 to 44 years (23.7%) than Australia as a whole (with 13.9% and 28.9%) (Table 1). Conversely, there were markedly higher proportions of the population in the Division aged 45 years and over compared to Australia.

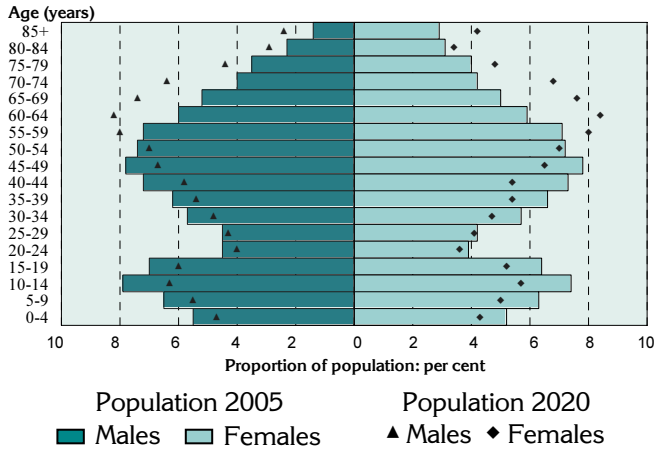
Figure 2: Population in North East Victorian DGP and Australia, by age and sex, 2005



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 a higher proportion at ages 10 to 14 years;
- from 20 to 39 years – notably lower proportions of both males and females; and,
- at 45 years and over – higher proportions of both males and females.

Figure 3: Population projections for North East Victorian DGP, by age and sex, 2005 and 2020



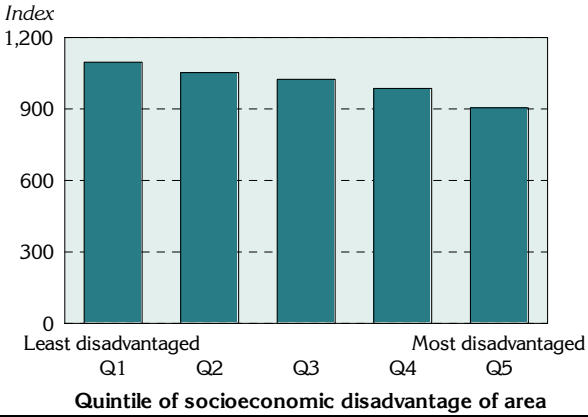
The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- at younger ages – lower proportions of children and young people, aged 0 to 19 years;
- from 20 to 54 years – lower proportions of both males and females; and
- from 55 years onwards – higher proportions of both males and females, in particular at ages 60 to 74 years.

Additional socio-demographic indicators

Please refer to the earlier *Population health profile of the North East Victorian 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, North East Victorian DGP, 2001



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

The North East Victorian DGP has an index score of 1013, above the score for Australia of 1000: this score varies across the Division, from 904 in the most disadvantaged areas to 1096 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 notably fewer jobless families in the North East Victorian DGP (14.9%), compared to country Victoria as a whole (17.4%) (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 notably lower proportion of people with private health insurance (37.1%), compared to country Victoria (43.0%) (Figure 5, Table 2).

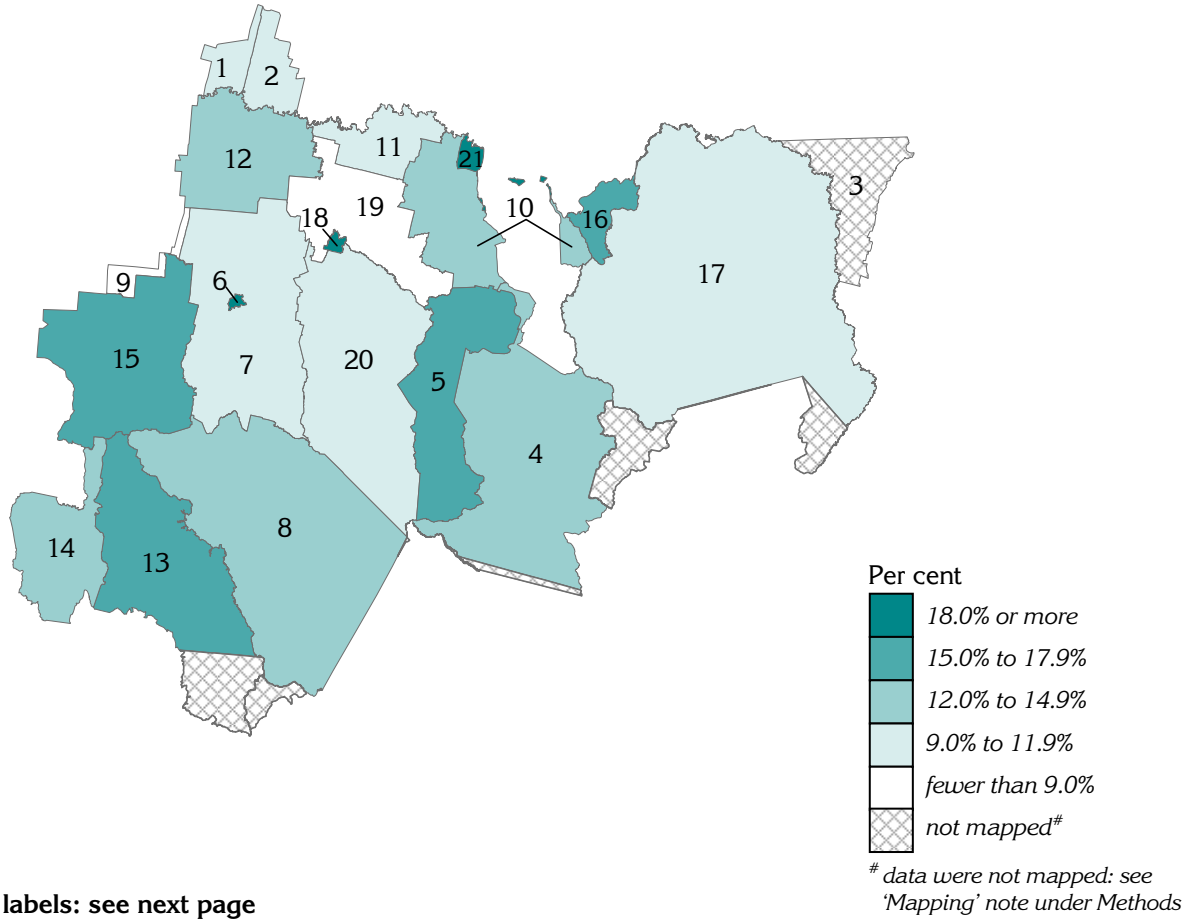
Figure 5: Socio-demographic indicators, North East Victorian DGP, country Victoria, Victoria and Australia, 2001

Table 2: Socio-demographic indicators, North East Victorian DGP, country Victoria, Victoria and Australia, 2001

Indicator	North East Victorian DGP		Country Victoria		Victoria		Australia	
	No.	%	No.	%	No.	%	No.	%
Jobless families with children under 15 years old	1,584	14.9	24,724	17.4	77,142	15.4	357,563	17.4
Private health insurance (30 June)	38,602	37.1	543,292	43.0	2,196,890	47.5	8,671,106	46.0

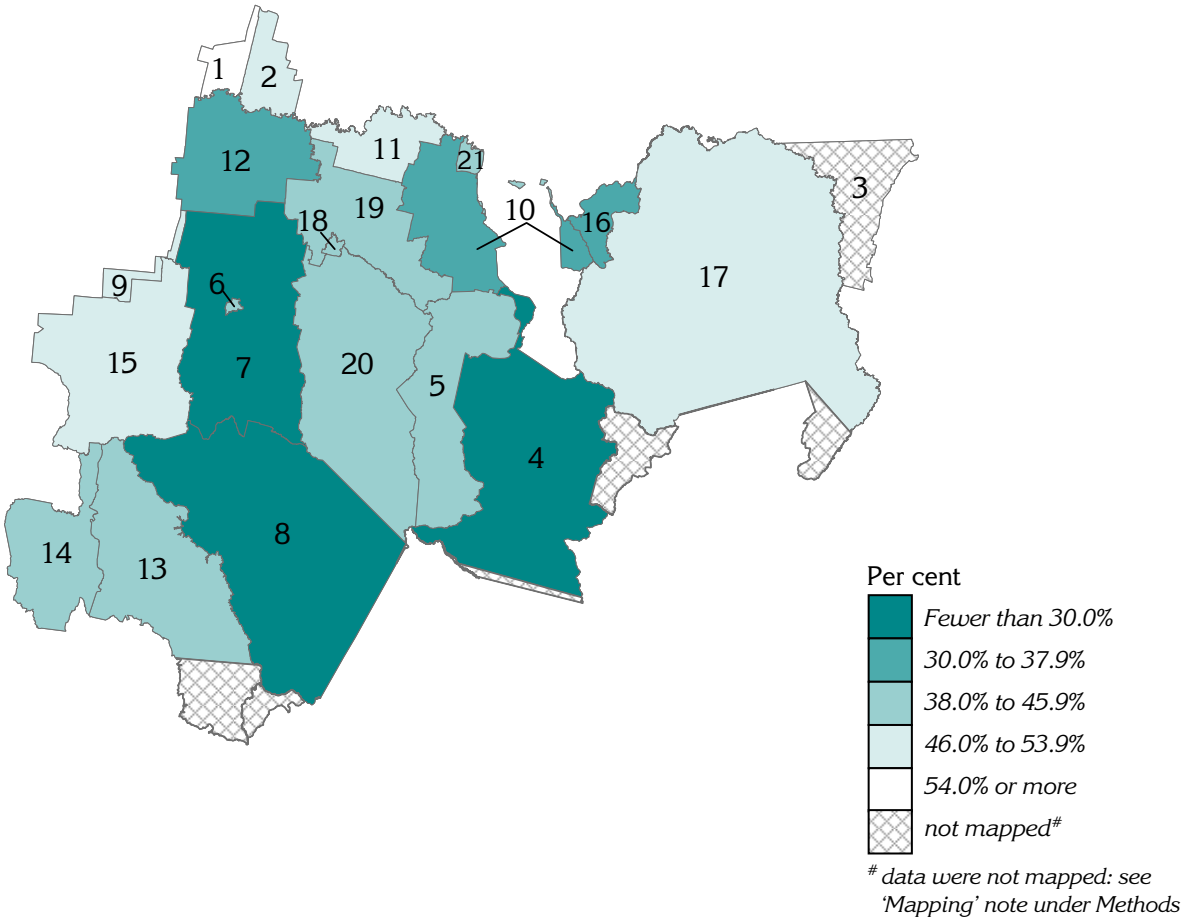
Details of the distribution of jobless families and of the population covered by private health insurance are shown by Statistical Local Area (SLA) in Maps 1 and 2, respectively.

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



For map labels: see next page

Map 2: People covered by private health insurance by SLA, North East Victorian DGP, 30 June 2001



Alphabetical key to Statistical Local Areas, North East Victorian DGP, 2001

Alpine - East	4	Murrindindi - East	13
Alpine - West	5	Murrindindi - West	14
Berrigan	1	Strathbogie	15
Corowa	2	Towong - Part A	16
Delatite - Benalla	6	Towong - Part B	17
Delatite - North	7	Tumbarumba	3
Delatite - South	8	Wangaratta - Central	18
Greater Shepparton - Part B East	9	Wangaratta - North	19
Indigo - Part A	10	Wangaratta - South	20
Indigo - Part B	11	Wodonga	21
Moira - East	12		

GP services to residents of the North East Victorian 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 (85.4%) of all unreferred attendances to residents of North East Victorian DGP were provided in the Division (ie. by a GP with a provider number in the Division): this represented 374,560 GP unreferred attendances (Table 3). A further 6.0% of unreferred attendances to residents were provided by GPs with a provider number in Border DGP.

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

Division		Unreferred attendances	
Number	Name	No.	%[3]
319	North East Victorian DGP	374,560	85.4
329	Border DGP	26,415	6.0
301	Melbourne DGP	3,272	0.7
327	Goulburn Valley DGP	2,738	0.6
308	Northern Melbourne DGP	2,679	0.6
Other	..	28,912	6.6
Total	..	**438,576**	**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 319 by Division in which attendance occurred

The majority (90.2%) of unreferred attendances provided by GPs with a provider number in North East Victorian DGP were also to people living in the Division (ie. their Medicare address was in the Division) (Table 4). A further 2.8% of unreferred attendances provided by GPs in the Division were to residents of Border DGP.

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

Division		Unreferred attendances	
Number	Name	No.	%[3]
319	North East Victorian DGP	374,560	90.2
329	Border DGP	11,693	2.8
327	Goulburn Valley DGP	5,068	1.2
318	Central Highlands DGP	2,272	0.5
320	Eastern Ranges DGP	2,272	0.5
Other	..	19,312	4.7
Total	..	**415,177**	**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 319 by Division of patient address

Additional prevalence estimates: chronic diseases and risk factors combined

Please refer to the earlier *Population health profile of the North East Victorian 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 North East Victorian DGP who had asthma and were smokers, compared to Australia as a whole (Figure 6, Table 5): that is, the prevalence rates per 1,000 population were higher. However, the rates were consistent with those in country Victoria. In contrast, there were fewer people in the North East Victorian DGP who had type 2 diabetes and were overweight/ obese, compared to country Victoria or Australia.

Figure 6: Estimates of selected chronic diseases and risk factors, North East Victorian DGP, country Victoria and Australia, 2001

Table 5: Estimates of selected chronic diseases and risk factors, North East Victorian DGP, country Victoria, Victoria and Australia, 2001

Variable	North East Victorian DGP		Country Victoria		Victoria		Australia	
	No.[1]	Rate[2]	No.[1]	Rate[2]	No.[1]	Rate[2]	No.[1]	Rate[1]
Had asthma & smoked[3]	2,388	25.1	29,424	24.6	95,664	19.9	397,734	20.8
Had type 2 diabetes & were overweight/ obese[4]	1,473	12.2	19,136	14.1	69,192	15.1	283,176	15.2

[1] **No. is a weighted estimate of the number of people in North East Victorian 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.

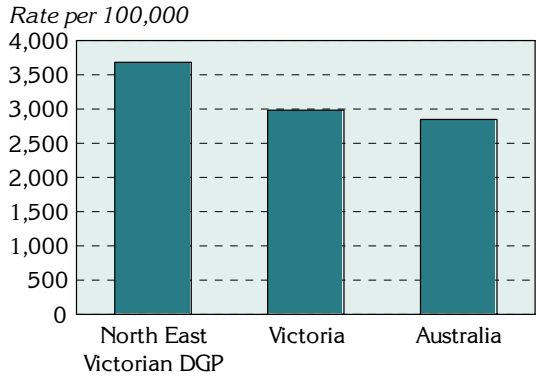
In 2001 to 2002, the 4,403 admissions from ambulatory care sensitive (ACS) conditions accounted for 10.8% of all hospitalisations in the North East Victorian DGP (Table 6, Figure 7), markedly above the levels in Victoria (8.8%) and Australia (8.7%).

Table 6: Avoidable[1] and unavoidable hospitalisations, North East Victorian DGP, Victoria, and Australia, 2001/02

Category	North East Victorian DGP			Victoria			Australia		
	No.	Rate[2]	%	No.	Rate[2]	%	No.	Rate[2]	%
Avoidable[1]	4,403	3,681.7	10.8	145,135	2,983.2	8.8	552,786	2,847.5	8.7
Unavoidable	36,285	32,039.4	89.2	1,510,437	31,088.3	91.2	5,818,199	29,970.7	91.3
Total	**40,688**	**35,753.5**	**100.0**	**1,655,572**	**34,071.5**	**100.0**	**6,370,985**	**32,818.2**	**100.0**

[1] **Admissions resulting from ACS conditions**
[2] **Rate is the indirectly age-standardised rate per 100,000 population**

Figure 7: Avoidable hospitalisations[1], North East Victorian DGP, Victoria and Australia, 2001/02



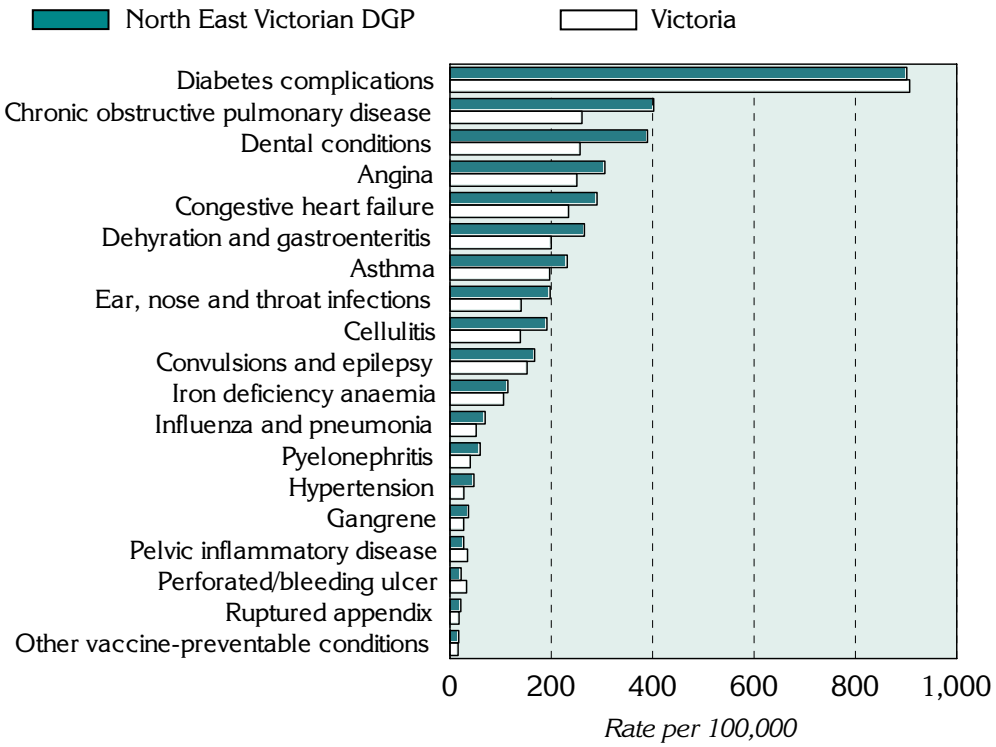
[1] **Admissions resulting from ACS conditions**

The rate of avoidable hospitalisations in North East Victorian DGP is markedly higher, a rate of 3,681.7 admissions per 100,000 population, compared to rates in Victoria (a rate of 2,983.2) and Australia (2,847.5).

Diabetes complications, chronic obstructive pulmonary disease, dental conditions, angina and congestive heart failure were the five conditions with the highest rates of avoidable hospitalisations in the North East Victorian DGP (Figure 8, Table 7).

Table 7 shows the number, rate and proportion of avoidable hospitalisations, for the individual ACS conditions, as well as the vaccine-preventable; acute; and chronic sub-categories. The majority of avoidable hospitalisations are attributable to chronic health conditions. The predominance of hospitalisations for chronic conditions in this period can be primarily attributed to the large number of admissions for diabetes complications. Dental conditions, and dehydration and gastroenteritis, have the highest rates of avoidable hospitalisations for the acute conditions.

Figure 8: Avoidable hospitalisations[1] by condition, North East Victorian DGP and Victoria, 2001/02



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

Table 7: Avoidable hospitalisations[1] by condition, North East Victorian DGP, Victoria and Australia, 2001/02

Sub-category/ condition	North East Victorian DGP		Victoria		Australia	
	No.	Rate[2]	No.	Rate[2]	No.	Rate[2]
Vaccine-preventable	**100**	**87.1**	**3,293**	**68.0**	**16,573**	**85.4**
Influenza and pneumonia	82	69.6	2,525	52.0	13,021	67.1
Other vaccine preventable	18	17.5	768	16.0	3,552	18.3
Chronic[3]	**2,940**	**2,292.6**	**97,133**	**1,982.6**	**352,545**	**1,816**
Diabetes complications	1,160	901.3	44,409	906.9	141,345	728.1
Iron deficiency anaemia	142	114.4	5,196	105.9	16,451	84.7
Hypertension	60	47.5	1,362	27.7	6,354	32.7
Congestive heart failure	398	290.2	11,655	234.1	42,447	218.6
Angina	402	305.6	12,285	250.4	49,963	257.4
Chronic obstructive pulmonary disease	540	402.0	12,850	260.7	54,853	282.6
Asthma	238	231.6	9,376	196.9	41,009	211.3
Acute	**1,473**	**1,378.8**	**50,153**	**1,041.7**	**200,913**	**1,035**
Dehydration and gastroenteritis	298	265.4	9,761	200.0	37,766	194.5
Convulsions and epilepsy	173	167.3	7,297	152.4	31,137	160.4
Ear, nose and throat infections	195	197.6	6,653	140.5	32,075	165.2
Dental conditions	402	389.8	12,235	256.7	43,667	224.9
Perforated/bleeding ulcer	28	22.0	1,618	32.9	5,795	29.9
Ruptured appendix	22	21.4	855	17.9	3,866	19.9
Pyelonephritis	61	59.9	1,948	40.2	7,386	38.0
Pelvic inflammatory disease	26	27.3	1,693	34.8	6,547	33.7
Cellulitis	221	191.6	6,751	139.0	28,204	145.3
Gangrene	47	36.5	1,342	27.3	4,470	23.0
Total avoidable hospitalisations[4]	**4,403**	**3,681.7**	**145,135**	**2,983.2**	**552,786**	**2,847.5**

[1] **Admissions resulting from ACS conditions**
[2] **Rate is the indirectly age-standardised rate per 100,000 population**
[3] **Excludes nutritional deficiencies as less than ten admissions**
[4] **Sub-category and condition numbers and rates do not add to the reported total avoidable admissions: five conditions (influenza & pneumonia, other vaccine preventable, diabetes complications, ruptured appendix and gangrene) are counted in 'any diagnosis', so may be included in more than one condition group**

Avoidable mortality

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

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

Over two-thirds (68.6%) of all deaths in North East Victorian DGP at ages 0 to 74 years over the period 1997 to 2001 are considered to be avoidable, slightly lower than the proportion for country Victoria (70.8%) (Table 8). However, the rate in the Division is notably (10%) lower than that in country Victoria.

Deaths amenable to health care (amenable mortality, a subset of avoidable mortality) accounted for 27.2% of all deaths at ages 0 to 74 years in North East Victorian DGP, lower than the 28.7% in country Victoria.

Table 8: Avoidable and unavoidable mortality (0 to 74 years) by area, North East Victorian DGP, country Victoria, Victoria and Australia, 1997 to 2001

Mortality category	North East Victorian DGP		Country Victoria		Victoria		Australia	
	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]
Avoidable	1,132	198.1	14,812	221.0	45,466	201.3	189,845	211.8
% of total	**68.6**	**..**	**70.8**	**..**	**70.9**	**..**	**71.5**	**..**
(Amenable)	(449)	(76.9)	(6,001)	(88.2)	(18,406)	(81.4)	(76,249)	(85.1)
(% of total)	**(27.2)**	**(..)**	**(28.7)**	**(..)**	**(28.7)**	**(..)**	**(28.7)**	**(..)**
Unavoidable	519	89.5	6,100	90.0	18,617	82.4	75,582	84.3
% of total	**31.4**	**..**	**29.2**	**..**	**29.1**	**..**	**28.5**	**..**
Total mortality	**1,651**	**287.7**	**20,912**	**311.0**	**64,083**	**283.7**	**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. North East Victorian DGP's rate of avoidable mortality for males was 254.1 deaths per 100,000 males, higher than the rate of 141.4 for females. The rate of amenable mortality for males in the Division was also higher, 81.5, compared to 72.4 for females, a rate ratio of 1.13 (Figure 9, Table 9).

Figure 9: Avoidable and amenable mortality by sex (0 to 74 years), North East Victorian DGP, country Victoria, Victoria and Australia, 1997 to 2001

Note: the different scales

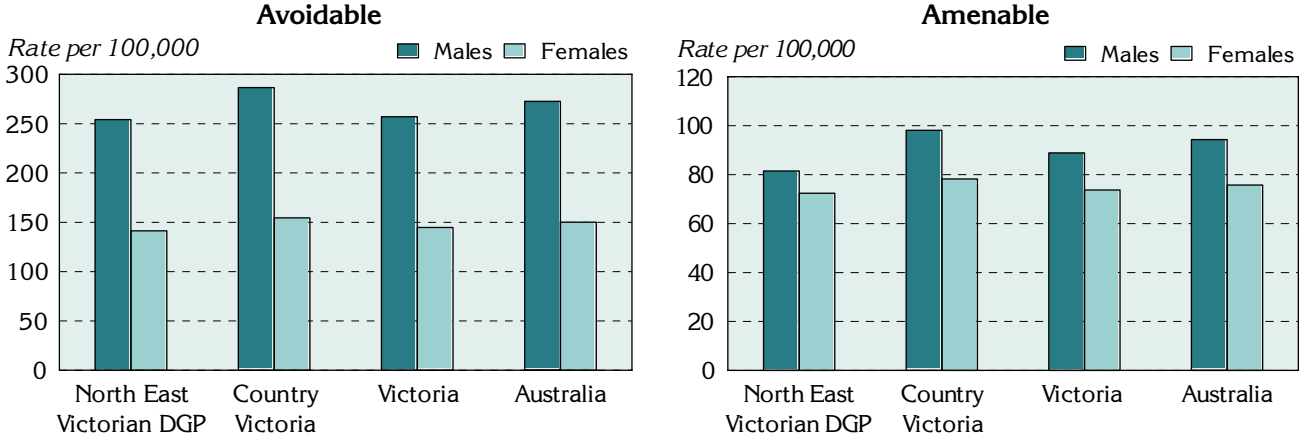


Table 9: Avoidable and amenable mortality (0 to 74 years) by sex, North East Victorian DGP, country Victoria, Victoria and Australia, 1997 to 2001

Mortality category and sex	North East Victorian DGP		Country Victoria		Victoria		Australia	
	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]
Avoidable								
Males	735	254.1	9,664	286.5	29,042	257.0	123,026	272.6
Females	397	141.4	5,148	154.5	16,424	144.8	66,819	150.1
Total	**1,132**	**198.1**	**14,812**	**221.0**	**45,466**	**201.3**	**189,845**	**211.8**
Rate ratio–M:F[2]	**..**	**1.80****	**..**	**1.85****	**..**	**1.77****	**..**	**1.82****
Amenable								
Males	244	81.5	3,386	98.1	10,052	88.9	42,568	94.3
Females	204	72.4	2,615	78.2	8,354	73.7	33,681	75.7
Total	**449**	**76.9**	**6,001**	**88.2**	**18,406**	**81.4**	**76,249**	**85.1**
Rate ratio–M:F[2]	**..**	**1.13**	**..**	**1.25****	**..**	**1.21****	**..**	**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 North East Victorian DGP, country Victoria, Victoria 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 69.0% of total YLL (0 to 74 years) for North East Victorian DGP, slightly lower than the proportion for country Victoria. The proportion of YLL from amenable mortality for North East Victorian DGP (26.4%) was also lower than that for country Victoria (28.1%).

Table 10: Years of life lost from avoidable mortality (0 to 74 years), North East Victorian DGP, country Victoria, Victoria and Australia, 1997 to 2001

Mortality category	North East Victorian DGP		Country Victoria		Victoria		Australia	
	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Avoidable	19,100	69.0	253,666	71.2	790,054	71.5	3,327,375	71.9
(Amenable)	(7,322)	(26.4)	(100,131)	(28.1)	(310,758)	(28.1)	(1,298,430)	(28.0)
Unavoidable	8,594	31.0	102,576	28.8	315,555	28.5	1,303,289	28.1
Total	**27,694**	**100.0**	**356,242**	**100.0**	**1,105,610**	**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 1,246.1 deaths per 100,000 population in the North East Victorian 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 280.8 in the North East Victorian Division.

Table 11: Avoidable and amenable mortality by age, North East Victorian DGP, country Victoria, Victoria and Australia, 1997 to 2001

Mortality category and age (years)	North East Victorian DGP		Country Victoria		Victoria		Australia	
	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]
Avoidable								
0-14	27	26.9	416	29.9	1,290	27.1	5,669	28.8
15-24	33	61.5	507	61.8	1,627	49.3	7,045	52.8
25-44	119	86.3	1,615	88.6	5,705	78.9	24,356	83.9
45-64	368	280.8	4,881	320.7	15,004	286.9	64,282	304.9
65-74	584	1,246.1	7,393	1396.1	21,840	1306.6	88,493	1,358.1
Total	**1,132**	**198.1**	**14,812**	**221.0**	**45,466**	**201.3**	**189,845**	**211.8**
Amenable								
0-24	21	13.1	352	15.5	1,189	14.9	5,083	15.4
25-44	26	17.5	419	22.3	1,382	19.1	5,946	20.5
45-64	159	121.4	2,091	137.4	6,489	123.8	27,464	130.3
65-74	243	519.3	3,139	593.1	9,348	558.6	37,756	579.4
Total	**449**	**76.9**	**6,001**	**88.2**	**18,406**	**81.4**	**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 North East Victorian DGP were for cancer, with a rate of 66.7 deaths per 100,000 population, and cardiovascular diseases, 54.0 deaths per 100,000 population (Table 12, Figure 10). For the selected causes within the condition groups, the two major causes of avoidable mortality were ischaemic heart disease and lung cancer, with rates of 38.8 per 100,000 population and 23.0 per 100,000, respectively.

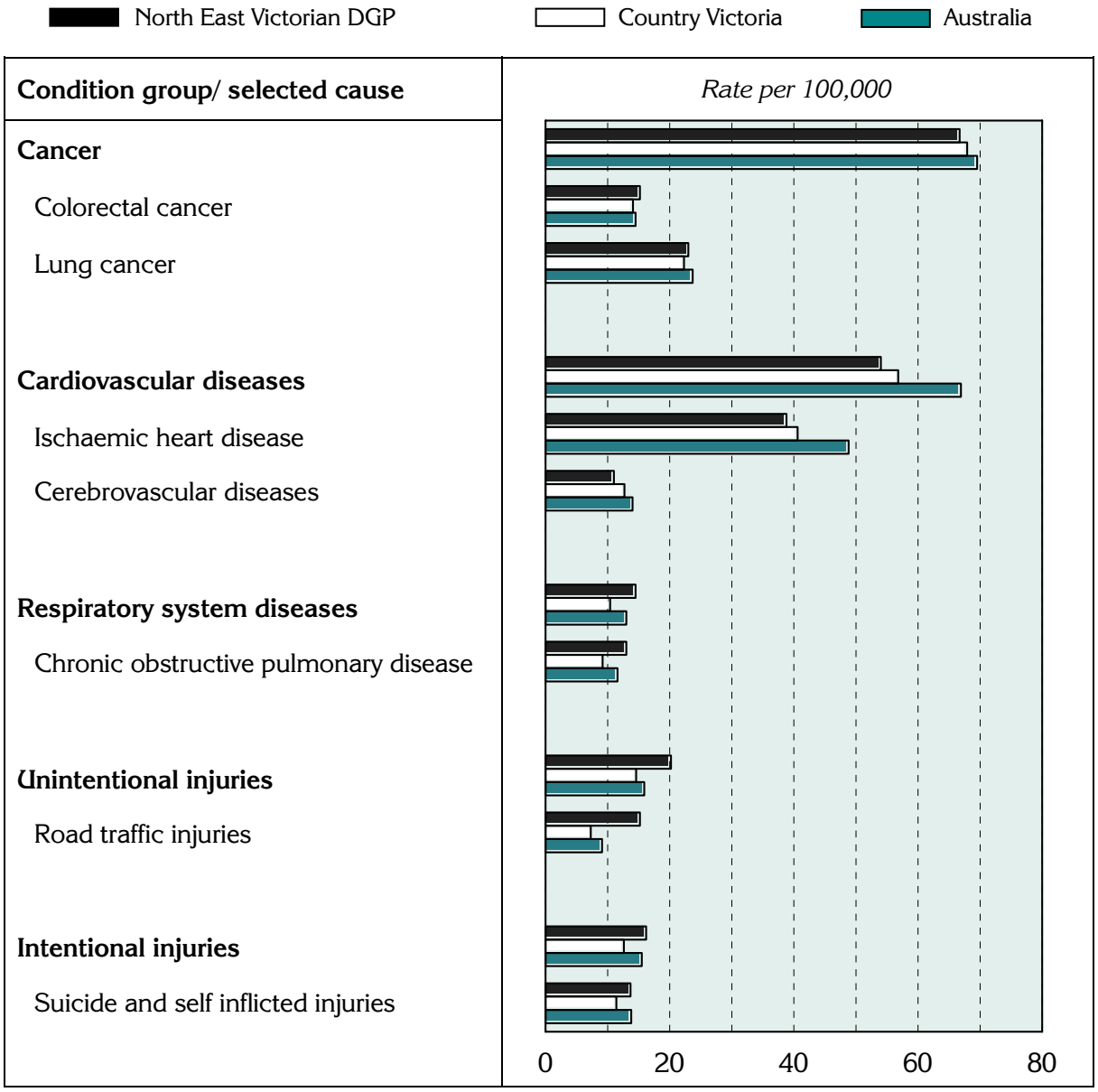
Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, North East Victorian DGP, country Victoria, Victoria and Australia, 1997 to 2001

Condition group/ selected cause	North East Victorian DGP		Country Victoria		Victoria		Australia	
	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]	No.	Rate[1]
Cancer	**396**	**66.7**	**5,074**	**74.2**	**15,813**	**69.8**	**62,338**	**69.5**
Colorectal cancer	92	15.2	1,133	16.5	3,351	14.8	13,008	14.5
Lung cancer	140	23.0	1,739	25.0	5,244	23.1	21,208	23.7
Cardiovascular diseases	**329**	**54.0**	**4,666**	**67.0**	**13,612**	**60.0**	**59,945**	**66.9**
Ischaemic heart disease	237	38.8	3,432	49.3	9,809	43.3	43,712	48.8
Cerebrovascular diseases	67	11.0	934	13.4	2,947	12.9	12,558	14.0
Respiratory system diseases	**89**	**14.5**	**977**	**13.9**	**2,621**	**11.5**	**11,612**	**13.0**
Chronic obstructive pulmonary disease	82	13.0	888	12.5	2,339	10.2	10,395	11.6
Unintentional injuries	**92**	**20.2**	**1,142**	**19.3**	**3,536**	**15.9**	**14,224**	**15.9**
Road traffic injuries	68	15.2	739	12.5	1,931	8.7	8,138	9.1
Intentional injuries	**73**	**16.2**	**946**	**16.2**	**3,020**	**13.6**	**13,891**	**15.5**
Suicide and self inflicted injuries	62	13.7	875	15.0	2,752	12.3	12,393	13.8

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

Rates in the Division were generally below or consistent with those in country Victoria and Australia for the condition groups and selected causes shown for cancer and cardiovascular diseases; however, for respiratory system diseases (total and COPD) and the injury categories they were higher, or consistent with, the comparators (Figure 10).

Figure 10: Avoidable mortality (0 to 74 years) by major condition group and selected cause, North East Victorian DGP, country Victoria and Australia, 1997 to 2001



Notes on the data

Data sources and limitations

General

References to 'country Victoria' relate to Victoria excluding the Melbourne 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 North East Victorian 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, Local Government Areas (LGAs) have been split into SLAs. For example, the LGA of Delatite has three SLAs – Benalla, North and South. All of these SLAs, and all or part of the other SLAs in Table 14, comprise the Division.

Table 14: SLAs and population in North East Victorian 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
10650	Berrigan	2.4	196
12300	Corowa	22.2	1,923
12450	***Culcairn***	***1.0***	***#***
14050	***Hume***	***3.6***	***299***
14950	***Lockhart***	***0.4***	***#***
17450	Tumbarumba	1.6	#
17700	***Urana***	***1.3***	***#***
20111	Alpine - East	93.5	8,314
20112	Alpine - West	100.0	4,577
21951	Delatite - Benalla	100.0	9,232
21954	Delatite - North	100.0	4,876
21955	Delatite - South	100.0	7,449
22834	Gtr Shepparton – Part B East	3.5	144
23351	Indigo - Part A	86.2	10,042
23352	Indigo - Part B	100.0	3,628
24901	Moira - East	91.3	8,478
25621	Murrindindi - East	83.7	5,343
25622	Murrindindi - West	29.4	2,266
26430	Strathbogie	60.9	5,857
26671	Towong - Part A	66.0	1,589
26672	Towong - Part B	100.0	3,773
26701	Wangaratta - Central	100.0	16,349
26704	Wangaratta - North	100.0	4,665
26705	Wangaratta - South	100.0	5,752
27170	Wodonga	6.9	2,411

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

 # Not shown as the total population is less than 100

Acknowledgements

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

Further developments and updates

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

PHIDU contact details

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