Population health profile of the

ACT

Division of General Practice

Population Profile Series: No. 119

PHIDU

November 2005

PHIDU

Australian Government
Australian Institute of
Health and Welfare

THE UNIVERSITY
OF ADELAIDE
AUSTRALIA

Copyright

National Library of Australia Cataloguing in Publication entry

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

Population health profile

of the *ACT Division of General Practice*

Introduction

This profile has been designed to provide a description of the population of the Australian Capital Territory Division of General Practice, and aspects of their health. Its purpose is to provide information to support a population health approach, which aims to improve the health of the entire population and to reduce health inequalities among population groups: a more detailed discussion of a population health approach is provided in the supporting information, page 18.

Contents

The profile includes a number of tables, maps and graphs to profile population health in the Division and provides comparisons with Australia. Specific topics covered include:

- a socio-demographic profile (pages 3-7);

- GP workforce data (page 8);

- immunisation rates (page 8);

- rates of premature death (page 9); and

- estimates of the prevalence of chronic disease and selected risk factors (pages 10-14)

Key indicators

Location: ACT

Division number: 222

Population‡:	No.	%
Total	347,800	
65+	32,217	9.3%
<25	123,075	35.4%
Indigenous	4,449	1.3

Disadvantage score[1]: 1079

GP services per head of population:

Division‡	3.6
Australia	4.7

Population per FTE GP:

Division‡	1,711
Australia	1,403

Premature death rate[2]:

Division‡	242.9
Australia	290.4

[1] Numbers above 1000 (the index score for Australia) indicate the Division is relatively advantaged

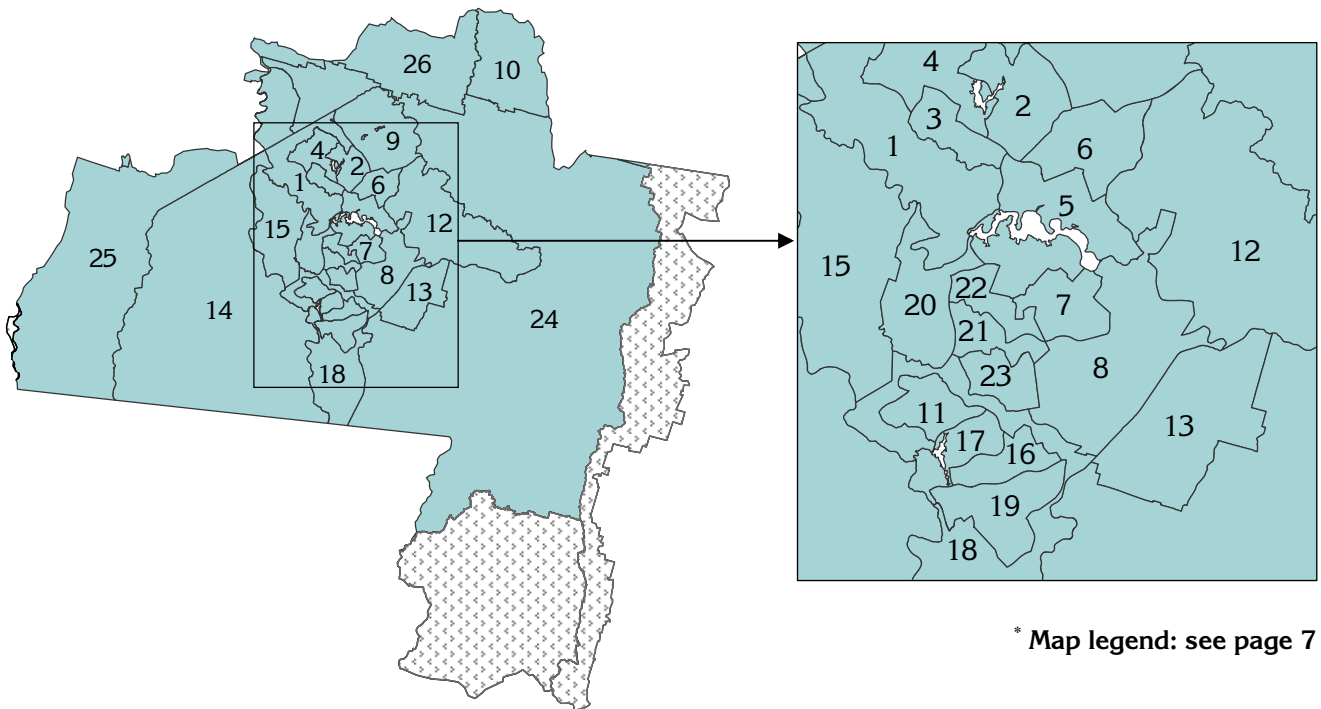[2] Deaths at ages 0 to 74 years per 100,000 population

‡ See note "Data converters and mapping" re calculation of Division Total

Divisions of General Practice in ACT DGP

NSW Divisions of General Practice
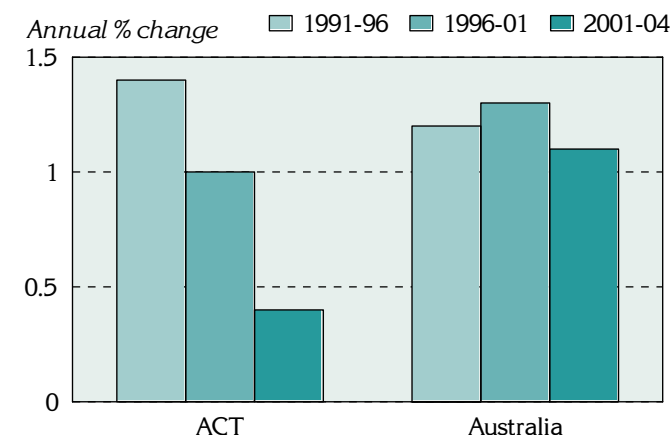

ACT DGP by SLA/SLA group

* Map legend: see page 7

Socio-demographic profile

Population

The ACT Division had an Estimated Resident Population of 347,800 at 30 June 2004.

Figure 1: Annual population change, ACT DGP‡ and Australia, 1991 to 1996, 1996 to 2001 and 2001 to 2004

Over the five years from 1991 to 1996, the Division's population grew by 1.4% on average each year, higher than the increase of 1.2% for Australia as a whole. From 1996 to 2001, the annual percentage increase in the Division was 1.0%, just below that for Australia (1.3%). The growth rate decreased to 0.4% from 2001 to 2004, compared to an annual increase of 1.1% for Australia for the same period.

Figure 2: Population in ACT DGP‡ and Australia, by age and sex, 2004
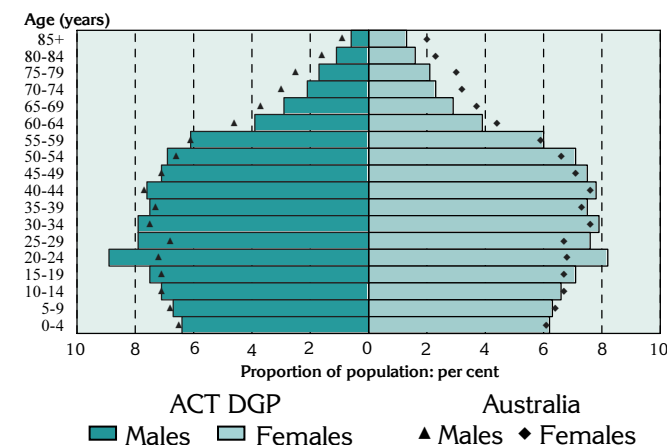
There are relatively few differences in the age distribution of the Division's population when compared to Australia overall. The most notable are:

- at younger ages – slightly fewer male children aged 0 to 14 years, and higher proportions of both males and females aged 15 to 24 years;
- higher proportions at ages 25 to 39 years for males and 25 to 54 years for females; and
- at older ages – notably lower proportions of people aged 60 years and over.

Table 1: Population by age, ACT DGP‡ and Australia, 2004

Age group	ACT DGP		Australia	
(years)	No.	%	No.	%
0-14	68,384	19.7	3,978,751	19.8
15-24	54,690	15.7	2,762,769	13.8
25-44	107,842	31.0	5,881,048	29.3
45-64	84,666	24.3	4,864,037	24.2
65-74	17,788	5.1	1,374,792	6.8
75-84	11,240	3.2	934,505	4.7
85+	3,190	0.9	295,602	1.5
Total	**347,800**	**100.0**	**20,091,504**	**100.0**

As shown in the age-sex pyramid above, the ACT DGP had more young people aged 15 to 24 years (15.7%) and people aged 25 to 44 years (31.0%) than Australia as a whole (with 13.8% and 29.3%, respectively) (Table 1). The proportions of the Division's population aged 65 years and over were notably lower than those for Australia as a whole.

The ACT DGP comprised 10.8% of people born in predominately non-English speaking countries and resident in Australia for five years or more (Table 2), the same as for Australia as a whole. Recent arrivals (those resident in Australia for less than five years) from predominately non-English speaking countries comprised 2.0% of the Division's population, below the 2.2% in Australia.

---

‡ **See note under 'Data converters and mapping' re calculation of Division totals on this page**

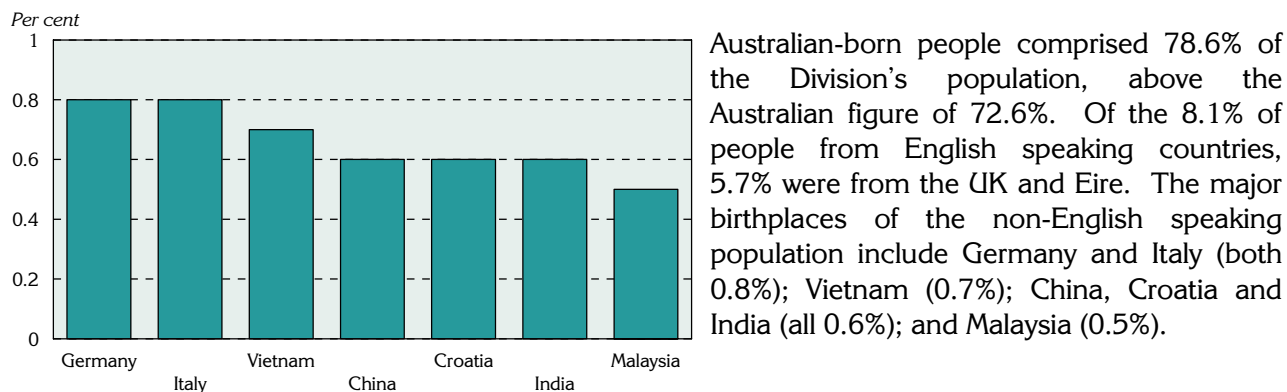Of these residents, 1.5% had poor proficiency in English (determined when people aged five years and over born overseas in predominately non-English speaking countries reported in the Census speaking another language and speaking English 'not well' or 'not at all'), compared to 2.4% for Australia.

Table 2: Non-English speaking born, ACT DGP and Australia, 2001

People born in predominately non-English speaking countries	ACT DGP		Australia	
	No.	%	No.	%
Resident in Australia for five years or more	35,598	10.8	2,019,410	10.8
Resident in Australia for less than five years	6,557	2.0	408,074	2.2
Poor proficiency in English[1]	4,607	1.5	425,399	2.4

[1] **Calculated on persons aged 5 years and over who reported speaking another language and speaking English 'not well' or 'not at all'**

Figure 3: Major non-English speaking birthplaces, ACT DGP, 2001

Australian-born people comprised 78.6% of the Division's population, above the Australian figure of 72.6%. Of the 8.1% of people from English speaking countries, 5.7% were from the UK and Eire. The major birthplaces of the non-English speaking population include Germany and Italy (both 0.8%); Vietnam (0.7%); China, Croatia and India (all 0.6%); and Malaysia (0.5%).

Socioeconomic status

The indicators presented in this section describe geographic variations in the distribution of the population for a number of key socioeconomic influences, which impact on the health and wellbeing of populations.

The ACT DGP had a higher proportion of single parent families (11.5%) than in Australia as a whole (10.7%) (Figure 4, Table 3).

Aboriginal and Torres Strait Islanders comprised 1.3% of the population, just over half the level for Australia (2.4%).

Full-time secondary school education participation of 16 year olds living in the Division (82.2%) was higher than the rate for Australia (78.7%).

The proportion of the Division's households receiving rent assistance from Centrelink (7.6%) was half that for Australia (15.0%), but there was a substantially higher rate of dwellings rented from the Territory housing authority (8.2%), compared to the rate of public housing rental in Australia (4.5%). The proportion of dwellings with no access to a motor vehicle (7.3%) was markedly lower than that for Australia (10.0%).

The Division had notably higher proportions of the population who reported using, at home, a computer (56.2%) compared to Australia (42.0%), and home use of the Internet (39.2%, compared to 27.7%).

These socioeconomic indicators show the Division to comprise a population of relatively high socioeconomic status: see also the note on page 6 (Summary of socioeconomic ranking).

Figure 4: Socio-demographic indicators, ACT DGP and Australia, 2001

Note the different scales

Single parent families

Indigenous‡

Education participation at age 16‡

Unemployment rate (June 2003)‡

Households receiving rent assistance & Dwellings rented from housing authority

Dwellings with no motor vehicle

Computer use at home

Internet use at home
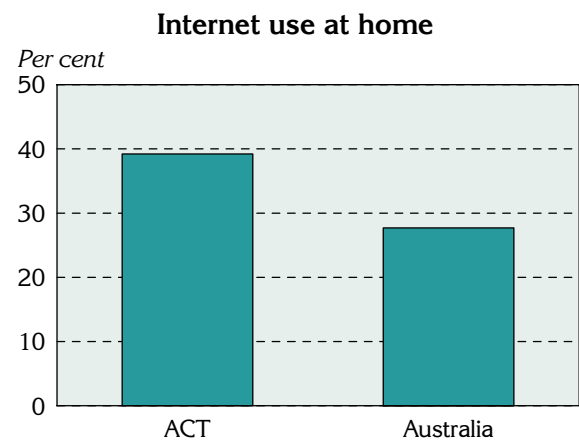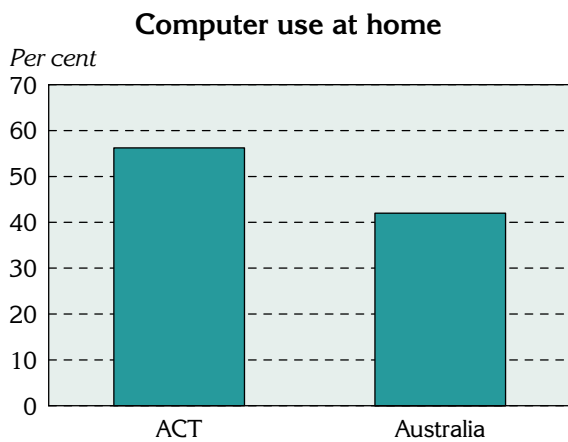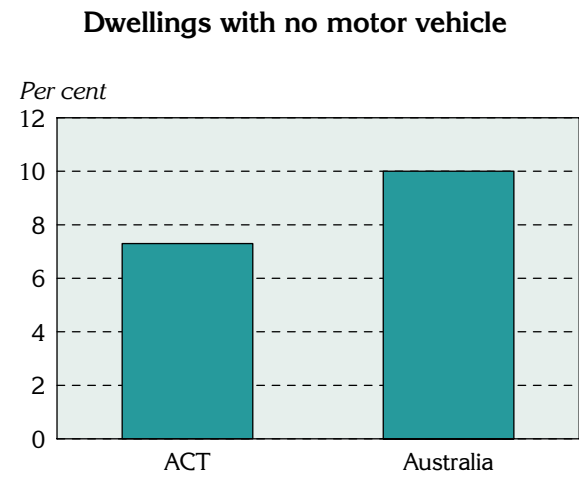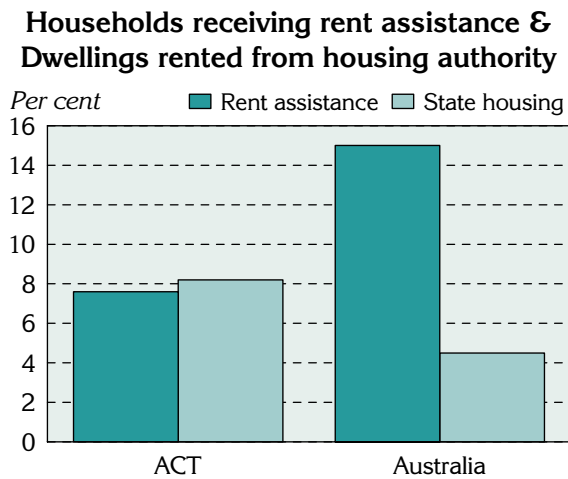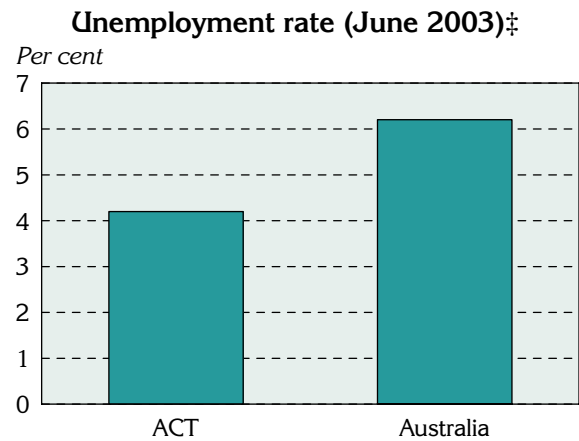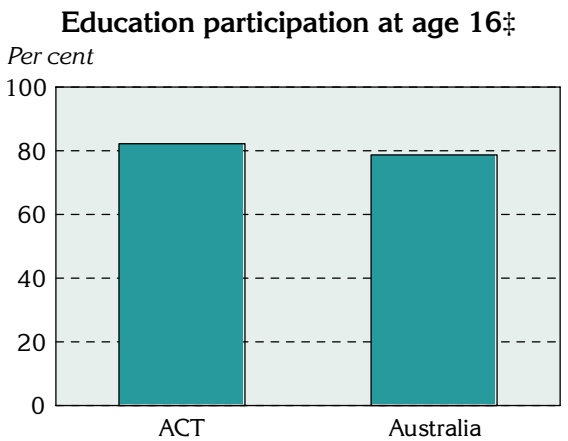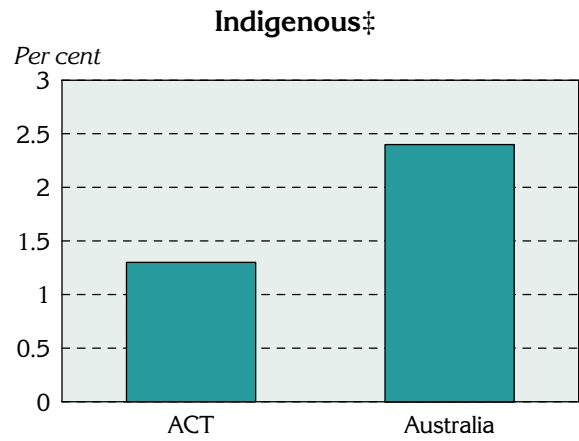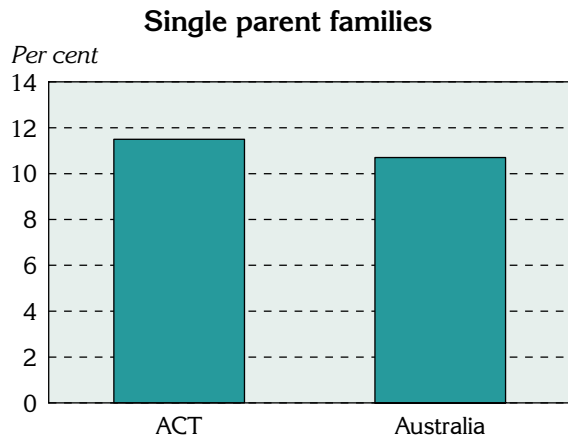
‡ See note under 'Data converters and mapping' re calculation of Division totals

Table 3: Socio-demographic indicators, ACT DGP and Australia, 2001

Indicator	ACT DGP		Australia	
	No.	%	No.	%
Single parent families	9,851	11.5	529,969	10.7
Indigenous‡	4,449	1.3	458,261	2.4
Full-time secondary school education at age 16‡	4,096	82.2	130,198	78.7
Households: rent assistance	8,961	7.6	1,006,599	15.0
Dwellings rented from Territory housing authority	10,136	8.2	317,171	4.5
Dwellings: no motor vehicle	8,972	7.3	708,073	10.0
Computer use at home	185,741	56.2	7,881,983	42.0
Internet use at home	129,580	39.2	2,019,410	27.7

‡ **See note under 'Data converters and mapping' re calculation of Division total**

The unemployment rate of 4.2% in the ACT DGP was markedly below the rate for Australia (6.2%) (Figure 4, Table 4). The labour force participation rate (80.2%) and female labour force participation rate (78.0%) were both notably higher than those for Australia as a whole (75.2% and 69.7%).

Table 4: Unemployment and labour force, ACT DGP and Australia, 2003

Labour force indicators	ACT DGP		Australia	
	No.	%	No.	%
Unemployment rate	8,321	4.2	623,791	6.2
Labour force participation	197,355	80.2	10,038,147	75.2
Female labour force participation (2001)	71,476	78.0	3,306,521	69.7

‡ **See note under 'Data converters and mapping' re calculation of Division total**

Summary of the socioeconomic ranking of the ACT DGP

Following the 2001 Census, the Australian Bureau of Statistics (ABS) produced four socioeconomic indexes for areas (SEIFA) which describe various aspects of the socioeconomic profile of populations in areas. The scores for these indexes for each Statistical Local Area (SLA) or groups of SLAs in ACT DGP are shown in the supporting information, Table 9, page 19: SLAs are described on page 20.

The ACT DGP area's SEIFA Index of Relative Socio-Economic Disadvantage (IRSD) score is 1076, well (7.6%) above the average score for Australia (1000), and consistent with that for Canberra (1079): this highlights the relatively high socioeconomic status profile of the ACT DGP population. Variations in the IRSD within the Division are shown at SLA level in Map 1: no score is below 1000.

Map 1: Index of Relative Socio-Economic Disadvantage by SLA/SLA group, ACT DGP, 2001

See note under 'Methods' re Data converters and mapping concerning SLAs mapped to the Division. This is of particular relevance where part of an SLA is mapped to the Division.

Index scores
- below 1025*
- 1026 to 1050
- 1051 to 1075
- 1076 to 1100
- above 1100
- not mapped#

* most disadvantaged
# data were not mapped: see note under 'Methods' re Data converters and mapping.
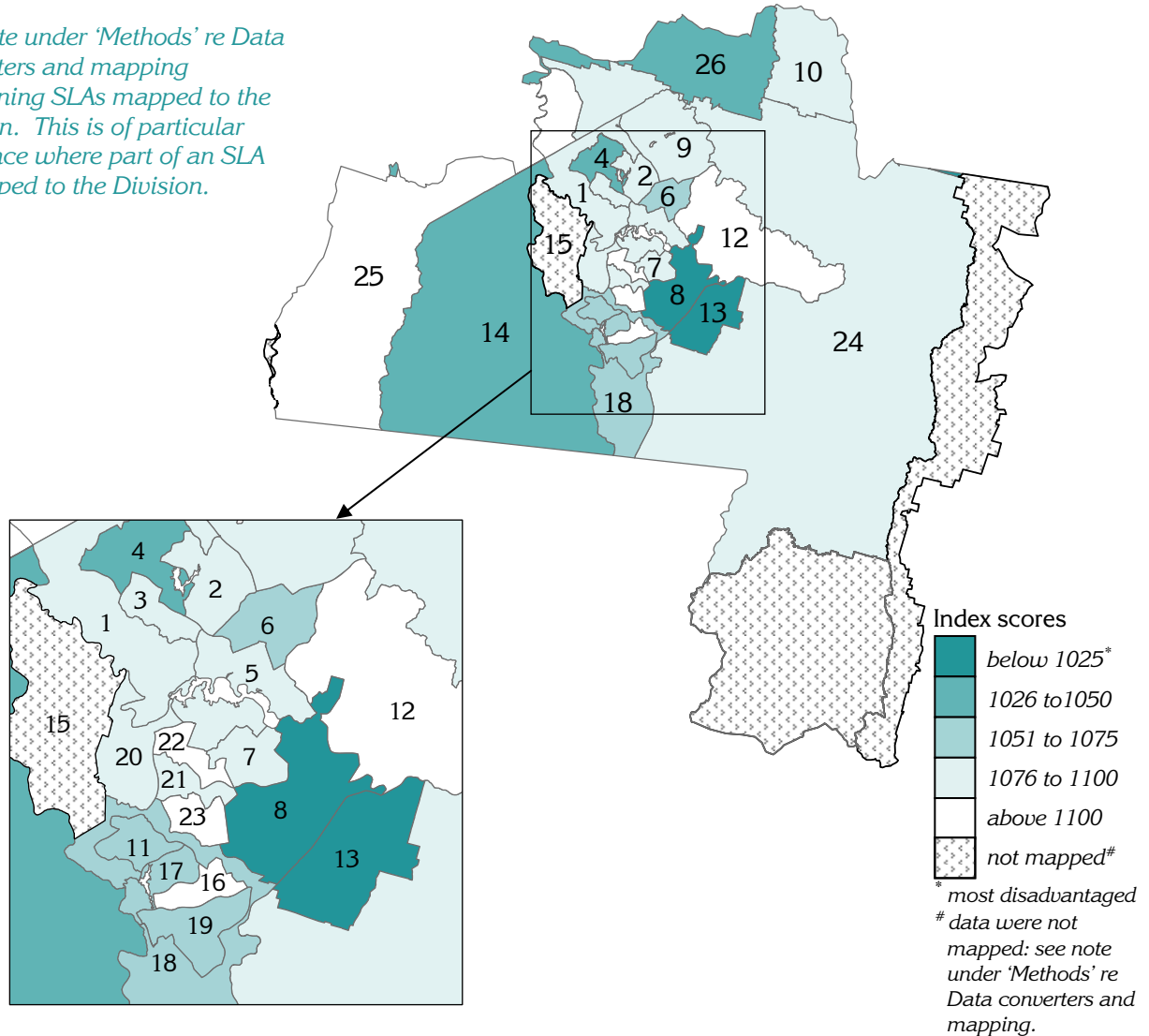
Alphabetical key to SLAs/SLA groups, ACT DGP, 2001			
Belconnen North	2	Remainder of ACT	14
Belconnen South	3	Stromlo	15
Belconnen SSD Balance	1	Tuggeranong North East	16
Belconnen West	4	Tuggeranong North West	17
Canberra Central	5	Tuggeranong South	18
Canberra North	6	Tuggeranong South East	19
Canberra South	7	Weston Creek	20
Eastern Fringe	8	Woden Central	21
Gungahlin	9	Woden North	22
Gunning	10	Woden South	23
Kambah	11	Yarrowlumla - Part A	24
Kowen and Majura	12	Yarrowlumla - Part B	25
Queanbeyan	13	Yass	26

General medical practitioner (GP) supply

A total of 202.8 full-time equivalent (FTE) GPs and 213.9 full-workload equivalent (FWE[1]) GPs worked in the ACT DGP over 2003/04 (Table 5). Of the FWE GPs, 35.0% were female, and 28.6% were over 55 years of age.

Apart from the day-time population, the rates of population per FTE GP varied, depending on the population measure used, from a high of 1,711 people per GP (calculated on the average Estimated Resident Population (ERP) as at 30 June 2003 and 2004) to a low of 1,644 people per GP (calculated on 1 August 2001 Census count - all people counted in the Division on Census night, including visitors from Australia and overseas). The rates of the population per FWE GP were lower, ranging from 1,559 (calculated on both the Census count, and the Usual Resident Population (URP) – usual residents of the Division counted in Australia on Census night) to 1,623 (calculated on the ERP).

When calculated on the estimated day-time population, the rates of population per GP in the Division were 1.9% below those calculated on the URP.

Based on the ERP, the rates of population per GP in ACT DGP were higher than for the Australian Capital Territory and Australia, indicating a lower level of provision of GP services in the Division.

Table 5: Population per GP in ACT DGP, Australian Capital Territory and Australia, 2002

Population measure	Population	GPs		Population per GP	
		FTE	FWE	FTE	FWE
ACT DGP					
Census count (adjusted)*	333,442	202.8	213.9	1,644	1,559
Usual Resident Population (adjusted)*	333,484	..	..	1,645	1,559
Estimated Resident Population (ERP)	347,017	..	..	1,711	1,623
Day-time population (estimated on URP* ‡	327,115	..	..	1,613	1,530
Australian Capital Territory (ERP)	323,692	203	214	1,595	1,513
Australia (ERP)	19,989,303	14,246	16,872	1,403	1,185

* **The Census count, Usual Resident Population and Day-time population were adjusted to reflect population change between 2001 and 2003/04, as measured by the ERP**
‡ **See note under 'Data converters and mapping' re calculation of Division totals**

Immunisation

Data from the Australian Childhood Immunisation Register show that 94.0% of children in the Division in 2002 were fully immunised at age one, consistent with the Australian proportion of 94.2%. Immunisation by provider type for children between the ages of 0 to 6 is shown in Table 6. The proportion of children in the Division who were immunised by a general practitioner was low, at 36.2%, compared to 70.0% for Australia, with 62.3% immunised at a community health centre, or by a community health worker.

Table 6: Childhood immunisation at ages 0 to 6 by provider type, ACT DGP and Australia, 2003/04

Provider	ACT DGP	Australia
	%	%
General practitioner	36.2	70.0
Local government council	0.0	16.6
Community health centre/ worker	62.3	9.8
Public hospital	0.5	2.1
Aboriginal health service/ worker	0.7	0.9
Other*	0.3	0.6
Total: Per cent	**100.0**	**100.0**
Number	**71,531**	**3,843,610**

* **Includes immunisations in/ by State/Territory Health Department, RFDS and private hospitals**

---

[1]The FWE value is calculated for each GP location by dividing the GP's total Medicare billing (Schedule fee value of services provided during the reference period) by the mean billing of full-time doctors in that derived major speciality for the reference period. Thus, a GP earning 20% more than the mean billing of full-time doctors is shown as 1.2 FWE: this differs from full-time equivalent (FTE) counts, where the FTE value of any GP cannot exceed 1.0

Premature mortality

Deaths at ages below 75 years are used as an indicator of health status, as they largely reflect premature deaths, given the current levels of life expectancy in Australia.

The 'all causes' death rate in the Division at ages 0 to 74 years (242.9 deaths per 100,000 population) is notably lower than for Australia (290.4): the rates have been age standardised to allow for comparisons between areas, regardless of differences in age profiles between the Division and Australia.

The major causes of premature mortality in the Division, as for Australia, are cancer and diseases of the circulatory system (Figure 5). Death rates in the Division for the major conditions and selected causes shown were lower than those for Australia as a whole.

The data on which the following chart is based are in Table 12.

Figure 5: Deaths before 75 years of age by major condition group and selected cause, ACT DGP‡ and Australia, 2000-02[*]

Indirectly age standardised rate per 100,000 population
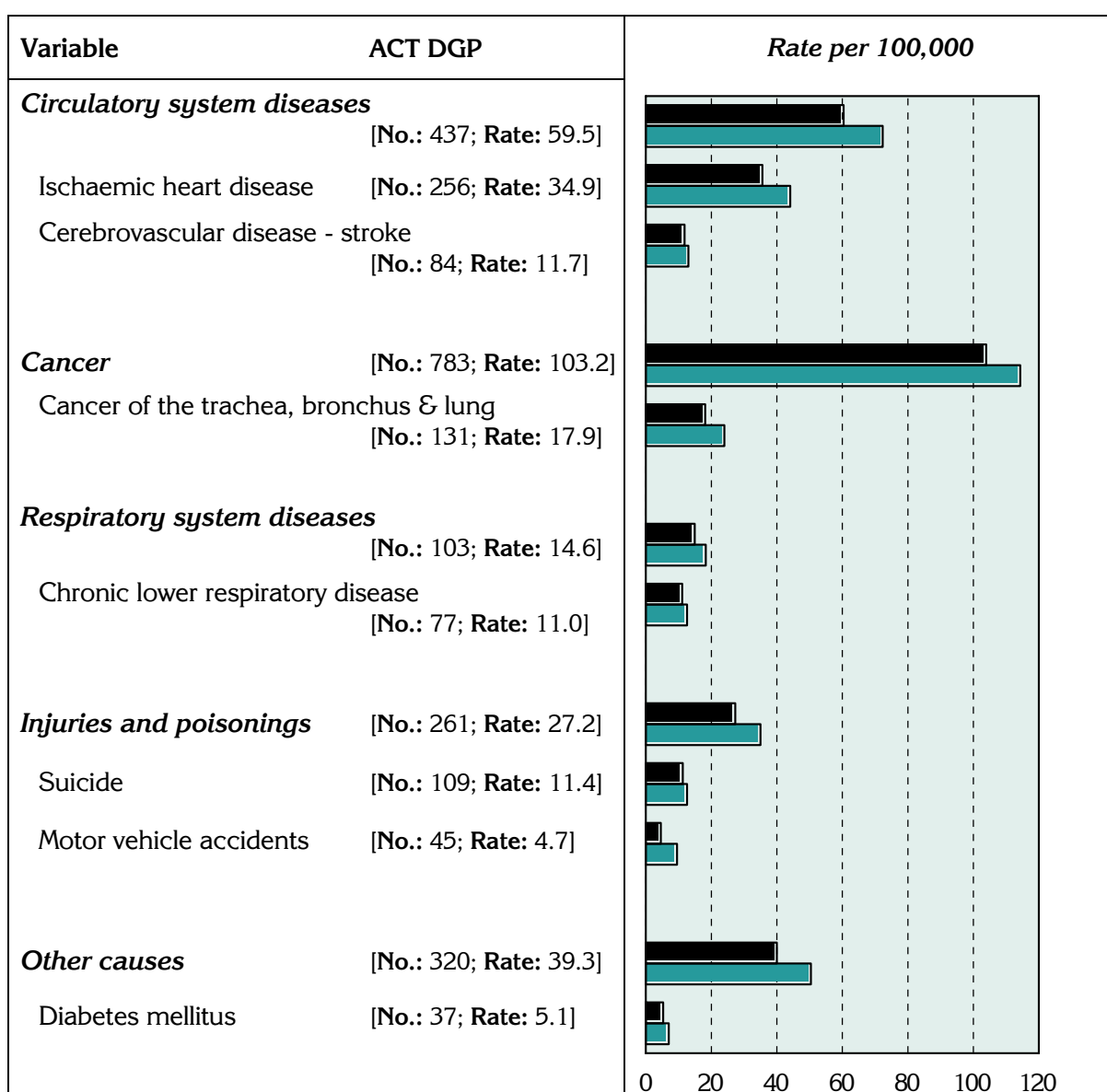
[*] **'No.' is the total number of deaths for the 2000-02 period; 'Rate' is an annual rate, based on the 3 year average**
‡ **See note under 'Data converters and mapping' re calculation of Division totals**

Chronic diseases and risk factors

The term "chronic disease" describes health problems that persist across time and require some degree of health care management (WHO 2002). Chronic diseases tend to have complex causes, are often long lasting and persistent in their effects, and can produce a range of complications (Thacker et al. 1995). They are responsible for a significant proportion of the burden of disease and illness in Australia and other westernised countries. Given the ageing of the population, this trend is likely to continue.

At different life stages, risk factors for chronic diseases and their determinants include genetic predisposition; poor diet and lack of exercise; alcohol misuse and tobacco smoking; poor intra-uterine conditions; stress, violence and traumatic experiences; and inadequate living environments that fail to promote healthy lifestyles (NPHP 2001). Risk factors are also more prevalent in areas of low socioeconomic status, and in communities characterised by low levels of educational attainment; high levels of unemployment; substantial levels of discrimination, interpersonal violence and exclusion; and poverty. There is a higher prevalence of risk factors among Indigenous communities, and other socioeconomically disadvantaged Australians (NPHP 2001).

Background

In this section, estimates of the prevalence of selected chronic diseases and risk factors, and two summary measures of health, are shown for the Division‡, and for non-remote SLAs within the Division : note that the estimates have been predicted from self-reported data, not on clinical records or physical measures. The chronic diseases and risk factors are those for which sufficiently reliable estimates can be made for the Division from national survey data. The process by which the estimates have been made, and details of their limitations, are described in the Notes section, pages 16-17. The data on which the following charts are based are in Table 13.

The estimates provide information of relevance to a number of the National Health Priority Areas (NHPAs – asthma; cardiovascular health; diabetes mellitus; injury prevention and control; mental health; and arthritis and musculoskeletal conditions: estimates have not been made for cancer control, the other NHPA). The risk factors for which estimates have been made are those which are accepted as being associated with these important chronic conditions. They include overweight (not obese), obesity, smoking, lack of exercise and high risk alcohol use.

The numbers are estimates for an area, not measured events as are death statistics: they should be used as indicators of likely levels (and not actual levels) of a condition or risk factor in an area.

Prevalence estimates: chronic disease‡

It is estimated that, with the exceptions of respiratory system diseases (including asthma) and osteoporosis (females), relatively fewer people in ACT DGP reported having any of the selected chronic conditions than in Australia as a whole (Figure 6): that is, the prevalence rates per 1,000 population were lower. The generally lower rates are consistent with the socioeconomic status profile of the population of the Division.

Prevalence estimates: self-reported health‡

The NHS includes two measures of self-reported health. One is the Kessler Psychological Distress Scale–10 items (K–10). This is a scale of non-specific psychological distress based on 10 questions about negative emotional states in the four weeks prior to interview, asked of respondents 18 years and over (ABS 2002). The other asks respondents aged 15 years and over to rate their health on a scale from 'excellent', through 'very good', 'good' and 'fair', to 'poor' health. The population of the Division aged 18 years and over is estimated to have substantially fewer people with very high psychological distress levels as measured by the K–10, compared to Australia as a whole (Figure 7). The proportion of the population aged 15 years and over estimated to have reported their health as 'fair' or 'poor' is also well below the national average.

‡ **See note under 'Data converters and mapping' re calculation of Division totals**

Figure 6: Estimates * **of chronic disease and injury, ACT DGP‡ and Australia, 2001**

Indirectly age standardised rate per 1,000 population

■ ACT DGP   ▬ Australia

Variable	ACT DGP	Rate per 1,000
Respiratory system diseases	[**No.:** 127,725; **Rate:** 383.6]	
Asthma	[**No.:** 41,280; **Rate:** 121.8]	
Circulatory system diseases	[**No.:** 44,460; **Rate:** 156.0]	
Diabetes type 2	[**No.:** 5,430; **Rate:** 20.2]	
Injury event	[**No.:** 41,622; **Rate:** 121.1]	
Mental & behavioural disorders	[**No.:** 29,928; **Rate:** 88.6]	
Musculoskeletal system diseases	[**No.:** 99,986; **Rate:** 320.2]	
Arthritis	[**No.:** 32,663; **Rate:** 115.6]	
- osteoarthritis	[**No.:** 19,411; **Rate:** 71.1]	
- rheumatoid arthritis	[**No.:** 5,838; **Rate:** 20.2]	
Osteoporosis (females)	[**No.:** 3,941; **Rate:** 30.1]	

(Rate per 1,000 axis: 0, 100, 200, 300, 400)
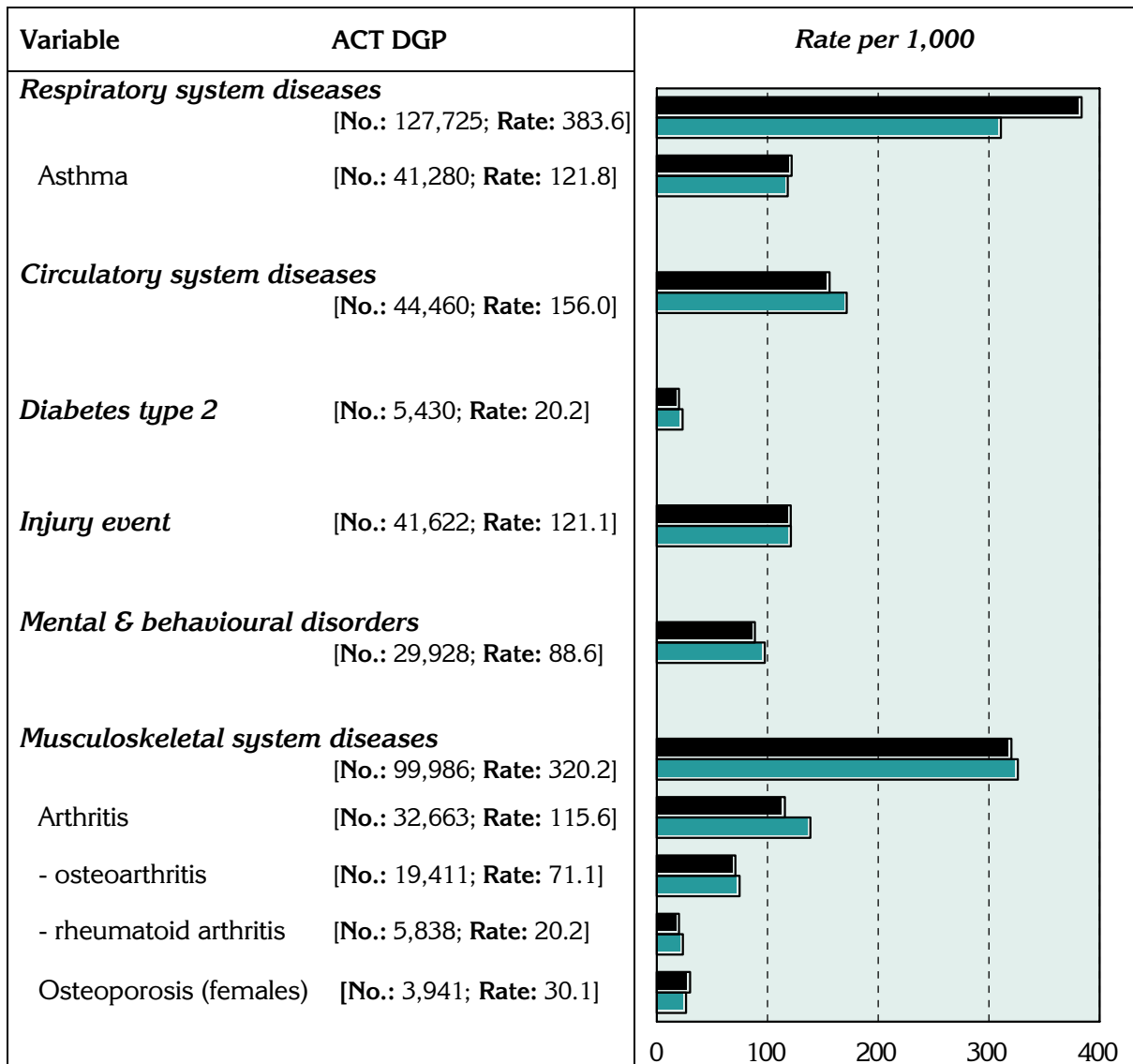
* 'No.' is a weighted estimate of the number of people in ACT DGP reporting each chronic condition and is derived from synthetic predictions from the 2001 NHS

‡ See note under 'Data converters and mapping' re calculation of Division totals

Figure 7: Estimates * **of measures of self-reported health, ACT DGP‡ and Australia, 2001**

Indirectly age standardised rate per 1,000 population

■ ACT DGP   ▬ Australia

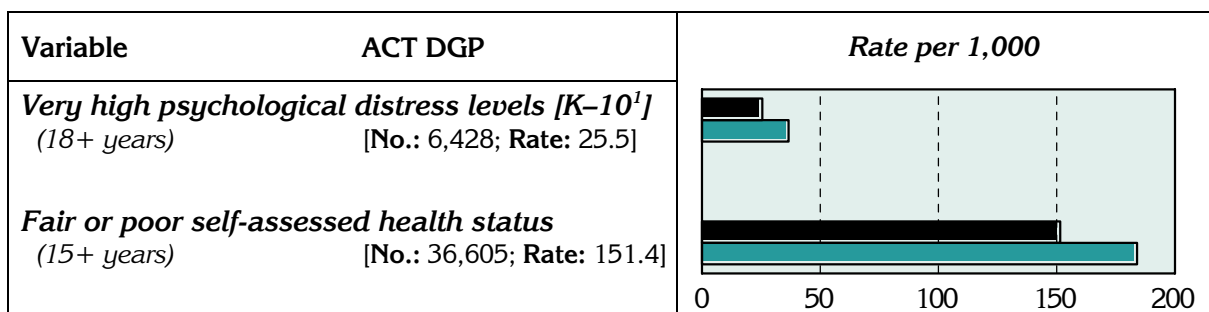| Variable	ACT DGP	Rate per 1,000
Very high psychological distress levels [K–10[1]] (18+ years)	[**No.:** 6,428; **Rate:** 25.5]	
Fair or poor self-assessed health status (15+ years)	[**No.:** 36,605; **Rate:** 151.4]	

(Rate per 1,000 axis: 0, 50, 100, 150, 200)

* 'No.' is a weighted estimate of the number of people in ACT DGP reporting under these measures and is derived from synthetic predictions from the 2001 NHS

[1] Kessler 10

‡ See note under 'Data converters and mapping' re calculation of Division totals

Prevalence estimates: risk factors‡

The relatively lower rates (when compared with the Australian population) for all of the listed risk factors (Figure 8) are consistent with the relatively high socioeconomic status profile of the Division.

Figure 8: Estimates* of selected risk factors, ACT DGP‡ and Australia, 2001

Indirectly age standardised rate per 1,000 population
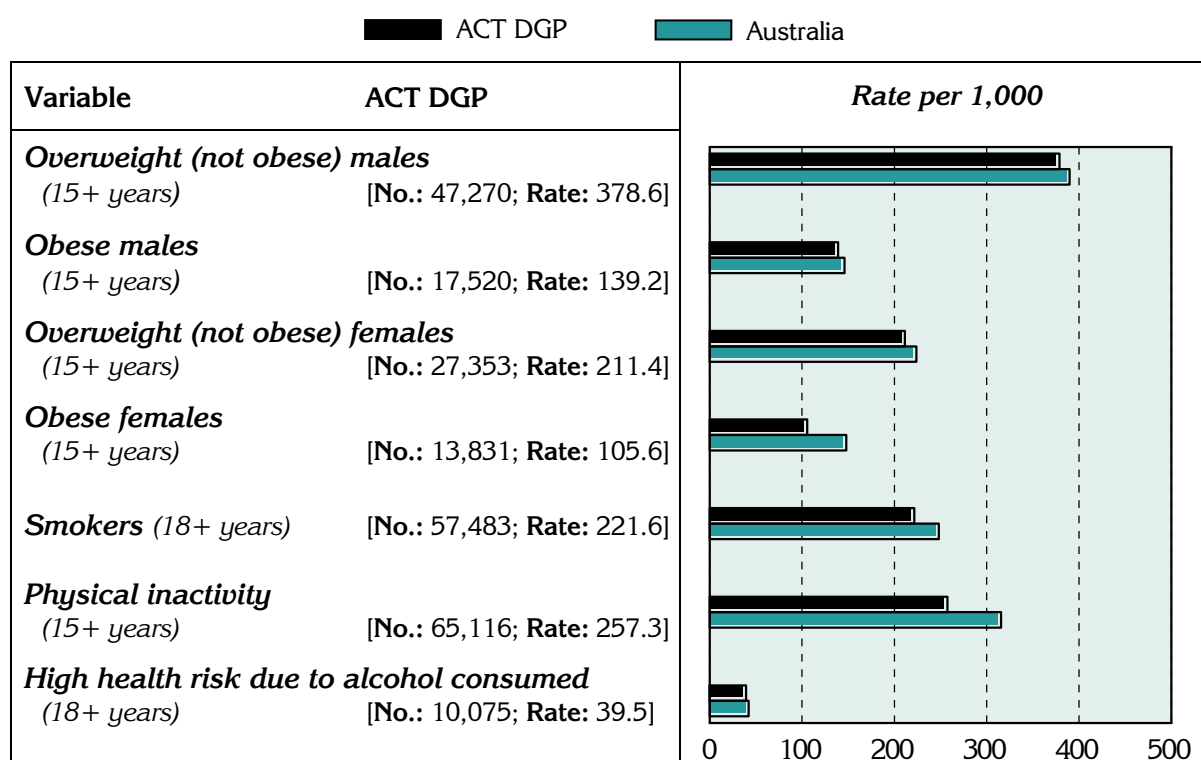
* 'No.' is a weighted estimate of the number of people in ACT DGP with these risk factors and has been predicted using data from the 2001 NHS and known data for the Division
‡ See note under 'Data converters and mapping' re calculation of Division totals

The following maps provide details of the geographic distribution, at the SLA level, of the estimated prevalence of chronic disease (Map 2), self-reported health (Map 3) and risk factors associated with chronic disease (Map 4).

In the following maps, users should note that the estimates shown for part SLAs in the Division (see Table 11, page 20, for per cent of SLA population in the Division) represent the estimates for the whole SLA, and not just the part shown. However, SLAs with only a small proportion of their population in the Division are likely to have little influence on the total estimates for the Division, which have been based on the percentage of the SLA population in the Division.

Map 2: Estimates* of chronic disease and injury by SLA/SLA group, ACT DGP, 2001
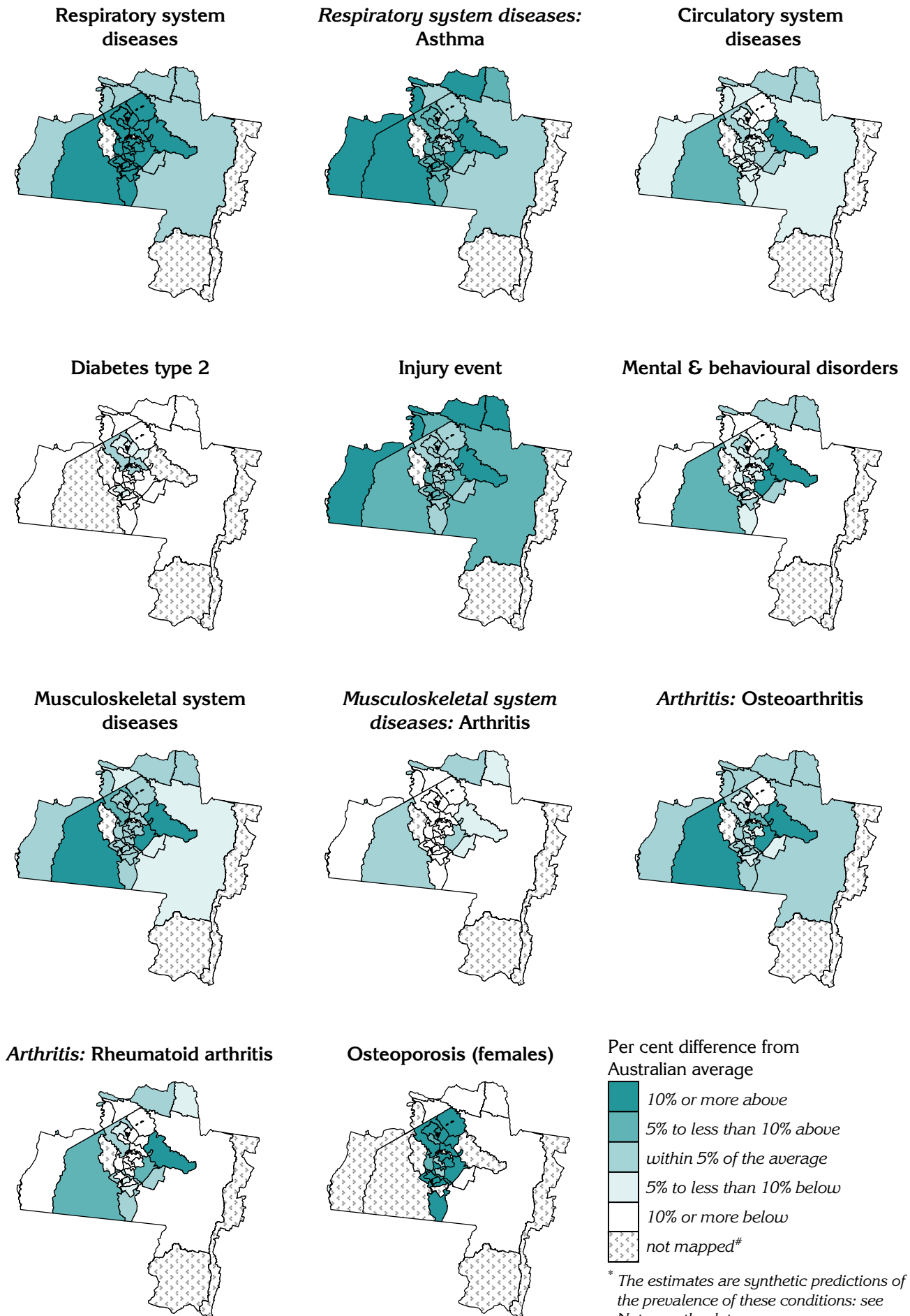
Respiratory system diseases

Respiratory system diseases: Asthma

Circulatory system diseases

Diabetes type 2

Injury event

Mental & behavioural disorders

Musculoskeletal system diseases

Musculoskeletal system diseases: Arthritis

Arthritis: Osteoarthritis

Arthritis: Rheumatoid arthritis

Osteoporosis (females)

Per cent difference from Australian average

- 10% or more above
- 5% to less than 10% above
- within 5% of the average
- 5% to less than 10% below
- 10% or more below
- not mapped#

* *The estimates are synthetic predictions of the prevalence of these conditions: see Notes on the data.*
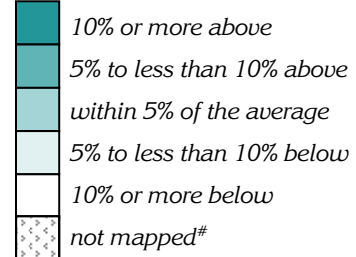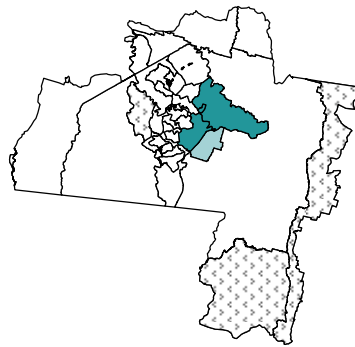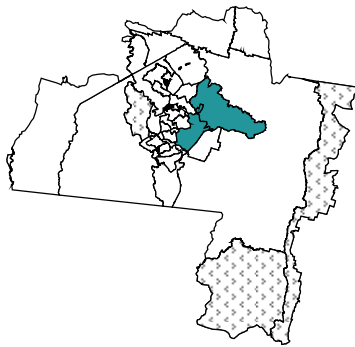\# *Data not mapped: see Notes on the data.*

Map 3: Estimates[*] of measures of self-reported health by SLA/SLA group, ACT DGP, 2001

Very high psychological stress levels [K–10[1]] (18+ years)

Fair or poor self-assessed health status (15+ years)

Per cent difference from Australian average

- 10% or more above
- 5% to less than 10% above
- within 5% of the average
- 5% to less than 10% below
- 10% or more below
- not mapped[#]

[*] The estimates are synthetic predictions of the prevalence of these conditions: see Notes on the data.

[#] Data not mapped: see Notes on the data.

[1] Kessler 10

Map 4: Estimates[*] of selected risk factors by SLA/SLA group, ACT DGP, 2001

Overweight (not obese) males (15+ years)

Obese males (15+ years)

Overweight (not obese) females (15+ years)

Obese females (15+ years)

Smokers (18+ years)

Physical inactivity (15+ years)
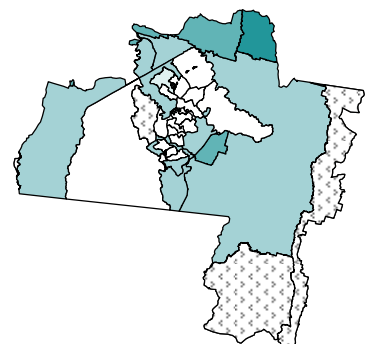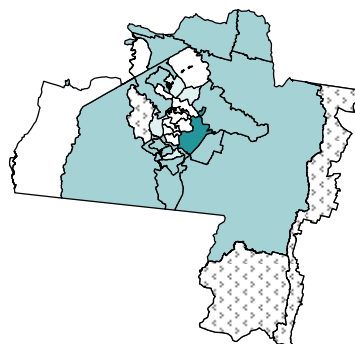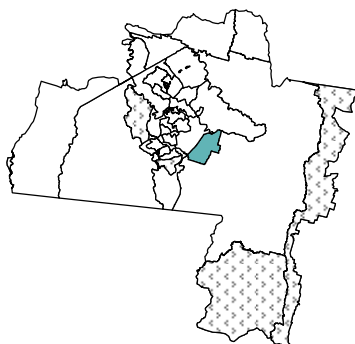
High health risk due to alcohol consumed (18+ years)

Per cent difference from Australian average
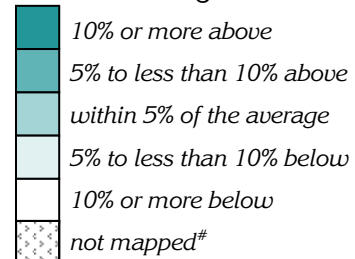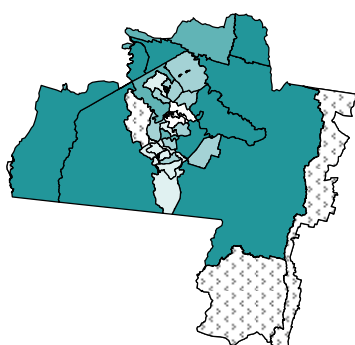
- 10% or more above
- 5% to less than 10% above
- within 5% of the average
- 5% to less than 10% below
- 10% or more below
- not mapped[#]

[*] The estimates are synthetic predictions of the prevalence of these conditions: see Notes on the data.

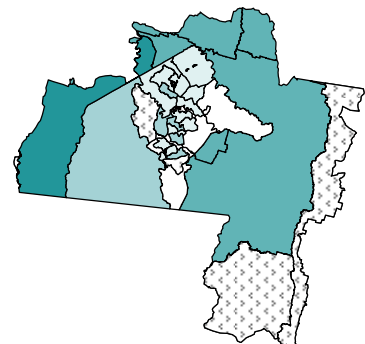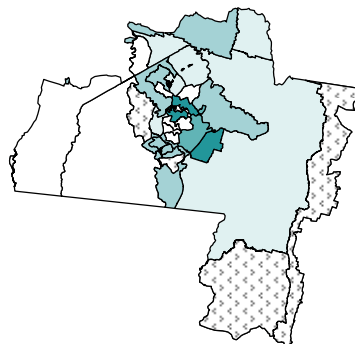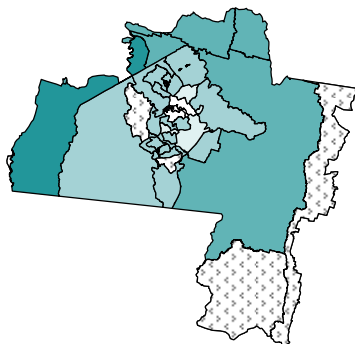[#] Data not mapped: see Notes on the data.

Notes on the data

Data sources and limitations

Data sources

Table 7 details the data sources for the material presented in this profile.

Table 7: Data sources

Section	Source
Key indicators	
GP services per head of population	GP services data supplied by Department of Health and Ageing, 2003/04 Population data: Estimated Resident Population, ABS, mean of 30 June 2003 and 30 June 2004 populations
Socio-demographic profile	
Figures 1 and 2; Table 1	Estimated Resident Population, ABS, 30 June for the periods shown
Tables 2, 3 and 4; Figures 3 and 4	Data were extracted by postal area from the ABS Population Census 2001[1], except for the following indicators: - *Indigenous* – Experimental estimates of Aboriginal and Torres Strait Islander people, ABS 2001 (unpublished) - *Full-time secondary education participation at age 16* – Census 2001 (unpublished) - *Households receiving rent assistance* – Centrelink, December Quarter 2001 (unpublished) - *Unemployment rate / Labour force participation* – extracted from *Small Area Labour Markets Australia*, June Quarter 2003, Department of Employment and Workplace Relations
Map 1; Table 9	ABS SEIFA package, Census 2001
General medical practitioner (GP) supply	
Table 5	GP data supplied by Department of Health and Ageing, 2003/04
	Population estimates used in calculating the population per GP rates are the: - Census count[2], ABS Population Census 2001, scaled to 2003/04 - Usual Resident Population[3], ABS Population Census 2001, scaled to 2003/04 - Day-time population: calculated from journey to work data, ABS Population Census (URP) 2001 (unpublished); and 2001 Census URP, scaled to 2003/04 - Estimated Resident Population, ABS, June 2003/2004
Immunisation	
Text comment 1 year olds	National Centre for Immunisation Research and Surveillance, 2002
Table 6	Australian Childhood Immunisation Register, Health Insurance Commission, 2003/04 (unpublished)
Premature mortality	
Figure 5; Table 12	ABS Deaths, 2000 to 2002
Chronic diseases and associated risk factors[4]	
Figures 6, 7 and 8; Maps 2, 3 and 4; Table 13	Estimated from 2001 National Health Survey (NHS), ABS (unpublished)

[1] **All data extracted from Usual Residents Profile, except for data variables only released in the Basic Community Profile**
[2] *Census count* **- those counted in the Division on Census night, including tourists, business people and other visitors**
[3] *Usual Resident Population* **- those who usually live there and who were in Australia at the time and would have provided details in the Census at the address where they were counted**
[4] **See notes below**

Chronic diseases and associated risk factors

The data for chronic conditions and risk factors for SLAs have been estimated from the 2001 National Health Survey (NHS), conducted by the ABS: see note below on synthetic estimates. The NHS sample includes the majority of people living in private households, but excludes the most remote areas of Australia. These areas cover 86.4% of Australia's land mass and comprise just 3% of the total population; however, 28% of Australia's Indigenous population live in these areas. Thus it has not been possible to produce these estimates for Divisions with relatively high proportions of their population in the most remote areas of Australia.

The data for chronic conditions and risk factors are self-reported data, reported to interviewers in the 2001 NHS. Table 8 includes notes relevant to this data.

Table 8: Notes on estimates of chronic diseases and associated risk factors

Indicator	Notes on the data
Estimates of chronic disease and injury (Figure 6 and Map 2)	
Long term conditions	- Respondents were asked whether they had been diagnosed with any long term health condition (a condition which has lasted or is expected to last for 6 months or more), and were also asked whether they had been told by a doctor or nurse that they had asthma, cancer, heart and circulatory conditions, and/or diabetes
Injury event	- Injuries which occurred in the four weeks prior to interview
Estimates of measures of self-reported health (Figure 7 and Map 3)	
Very high psychological distress levels (K10)	- Derived from the Kessler Psychological Distress Scale-10 items (K-10), which is a scale of non-specific psychological distress based on 10 questions about negative emotional states in the 4 weeks prior to interview. 'Very high' distress is the highest level of distress category (of a total of four categories)
Fair or poor self-assessed health status	- Respondent's general assessment of their own health, against a five point scale from excellent through to poor – 'fair' or 'poor' being the two lowest in the scale
Estimates of selected risk factors (Figure 8 and Map 4)	
Overweight (not obese)	- Based on self-reported height and weight; BMI calculated and grouped into categories (to allow reporting against both WHO and NHMRC guidelines) - overweight: 25.0 to less than 30.0
Obese	- Based on self-reported height and weight; BMI calculated and grouped into categories (to allow reporting against both WHO and NHMRC guidelines) – obese: 30.0 and greater
Smokers	- Respondent's undertaking regular (or daily) smoking at the time of interview
Physical inactivity	- Did not exercise in the two weeks prior to interview through sport, recreation or fitness (including walking) – excludes incidental exercise undertaken for other reasons, such as for work or while engaged in domestic duties
High health risk due to alcohol consumed	- Respondent's estimated average daily alcohol consumption in the seven days prior to interview (based on number of days and quantity consumed). Alcohol risk levels were grouped according to NHMRC risk levels for harm in the long term, with 'high risk' defined as a daily consumption of more than 75 ml for males and 50 ml for females

Note: For a full description, refer to *ABS 2001 National Health Survey*, Cat. No. 4364.0 and *ABS 2001 Health Risk Factors, Cat. No.* 4812.0

Methods

Synthetic estimates

The estimates of the prevalence of chronic disease and associated risk factors have been predicted for a majority of SLAs across Australia, using modelled survey data collected in the 2001 ABS National Health Survey (NHS) and known characteristics of the area. A synthetic prediction can be interpreted as the likely value for a 'typical' area with those characteristics: the SLA is the area level of interest for this project (where SLAs had small populations they were grouped to larger areas).   This work was undertaken by the Australian Bureau of Statistics, as they hold the NHS unit record files: the small area data were compiled by PHIDU.

The approach used is to undertake an analysis of the survey data for Australia to identify associations in the NHS data between the variables that we wish to predict at the area level (eg. prevalence of chronic conditions and risk factors) and the data we have at the area level (eg. socioeconomic status, use of health services).   The relationship between these variables for which we have area level data (the predictors) and the reporting of chronic conditions in the NHS is also a part of the model that is developed by the ABS.   For example, such associations might be between the number of people reporting specified chronic conditions in the NHS and:

- the number of hospital admissions (in total, to public and to private hospitals, by age, sex and diagnosis),
- socioeconomic status (as indicated by Census data, or for recipients of government pensions and benefits), and
- the number of visits to a general medical practitioner.

The results of the modelling exercise are then applied to the SLA counts of the predictors.   The prediction is, effectively, the likely value for a typical area with those characteristics.   The raw numbers were then age-standardised, to control for the effects of differences in the age profiles of areas.

The numbers are estimates for an area, not measured events as are death statistics: they should be used as indicators of likely levels of a condition or risk factor in an area.

Premature deaths

Details of deaths by SLA were purchased from the ABS. The raw numbers were then age-standardised, by the indirect method, to control for the effects of differences in the age profiles of areas.

Data converters and mapping

Conversion to Division of data available by postcode

The allocation of postcodes to Divisions was undertaken using information from the Department of Health and Ageing's web site, which shows the proportion of a postcode in a Division (Table 10).

Conversion to Division of data available by SLA

(marked in this profile as ‡ **See note under 'Data converters and mapping' re calculation of Division total**)

Where the data presented in these profiles were only available by SLA they have been converted to Division of General Practice areas using a concordance based on data at the 2001 Census. A copy of the concordance is included in the Population data: A Guide for Divisions of General Practice: it is also available from the Divisions' data area on PHIDU web site.

In brief, the concordance splits the data (eg number of deaths) for each SLA across one or more Divisions. The proportion of an SLA's data that is allocated to each Division was calculated from (a) CD level Census 2001 data that splits SLAs across approximations to postcodes (referred to as postal areas) and (b) data on the DoHA website that splits postcodes across Divisions. This concordance can be adjusted to meet any new configuration of Division boundaries based on the 2001 Collection Districts, or combinations thereof.

The estimated population of each SLA in this Division is shown in Table 11.

Mapping

In some Divisions the maps may include a very small part of an SLA which has not been allocated any population, or either has a population of less than 100 or has less than 1% of the SLA's total population: these areas are mapped with a pattern.

Supporting information

This and other information is also available at www.publichealth.gov.au.

A definition of population health

Population health, in the context of general practice, has been defined[1] as:

"The prevention of illness, injury and disability, reduction in the burden of illness and rehabilitation of those with a chronic disease. This recognises the social, cultural and political determinants of health. This is achieved through the organised and systematic responses to improve, protect and restore the health of populations and individuals. This includes both opportunistic and planned interventions in the general practice setting."

The key determinants of health are social support networks, employment and working conditions, social environments, physical environments, geographical isolation, personal health practices, healthy child development, ageing and disability, biology and genetic endowment, health services, gender and culture.

In the Aboriginal and Torres Strait Islander context this means that a population health approach to health services will assist in ensuring "that Aboriginal and Torres Strait Islander people enjoy a healthy life equal to that of the general population, that is enshrined by a strong living culture, dignity and justice".[2] This recognises the importance of achieving improvements to Aboriginal and Torres Strait Islander health and respects the particular health issues facing Indigenous people.

[1] **"The role of general practice in population health – A Joint Consensus Statement of the General Practice Partnership Advisory Council and the National Public Health Partnership Group" (Joint Advisory Group on General Practice and Population Health 2001)**
[2] **As defined in the Strategic Framework for Aboriginal and Torres Strait Islander Health**

SEIFA sores

Following the 2001 Census, the Australian Bureau of Statistics (ABS) produced four socioeconomic indexes for areas (SEIFA). The indexes describe various aspects of the socioeconomic make-up of populations in areas, using data collected in the 2001 Census.

The Index of Relative Socio-Economic Disadvantage (labelled 'Disadvantage' in Table 9) includes all variables that either reflect or measure disadvantage. The Index of Advantage/Disadvantage is used to rank areas in terms of both advantage and disadvantage: any information on advantaged persons in an area will offset information on disadvantaged persons in the area. The Index of Economic Resources and the Index of Education and Occupation were targeted towards specific aspects of advantage/disadvantage.

For further information on the composition and calculation of these indexes see the ABS Information Paper ABS Cat No. 2039.0 available on the ABS web site www.abs.gov.au. The scores for these indexes for each Statistical Local Area (SLA) or part SLA in ACT DGP are shown in Table 9.

In using this table, users should note that the index score shown for SLAs with less than 100 per cent in the Division represents the score for the whole SLA, and not just the part shown. However, SLAs with small proportions may have little influence on the average index score for the Division, which has been based on the postcodes in the Division.

Table 9: SEIFA scores by SLA/ SLA group, ACT DGP, 2001

SLA code	SLA/ SLA group name (& per cent of SLA/ SLA group in the Division)		Index score			
			Disadvantage	Advantage	Economic Resources	Education & Occupation
13600	Gunning	(5.6)	1080	1031	1001	1030
16450	Queanbeyan	(52.4)	1007	1021	1043	996
18651	Yarrowlumla - Part A	(49.0)	1094	1108	1104	1085
18652	Yarrowlumla -Part B	(50.0)	1134	1175	1198	1140
18700	Yass	(2.8)	1043	1021	1009	1017
80000	Canberra Central#	(100.0)	1048	1055	1067	1054
80001	Canberra North#	(100.0)	1081	1168	1138	1190
80002	Canberra South#	(100.0)	1071	1126	1080	1161
80003	Woden North#	(100.0)	1091	1169	1154	1179
80004	Woden Central#	(100.0)	1123	1169	1141	1178
80005	Woden South#	(100.0)	1081	1136	1107	1144
80006	Belconnen North#	(100.0)	1103	1153	1141	1144
80007	Kambah	(100.0)	1087	1120	1118	1102
80008	Tuggeranong North West#	(100.0)	1064	1102	1100	1080
80009	Tuggeranong North East#	(100.0)	1059	1101	1104	1074
80010	Tuggeranong South East#	(100.0)	1102	1142	1157	1103
80011	Tuggeranong South#	(99.9)	1059	1086	1101	1053
80012	Weston Creek	(100.0)	1065	1082	1099	1049
80013	Belconnen South#	(100.0)	1094	1139	1129	1125
80014	Belconnen West#	(100.0)	1094	1143	1113	1152
80015	Gungahlin#	(100.0)	1049	1082	1071	1073
80016	Kowen and Majura#	(50.0)	1098	1138	1145	1114
80017	Belconnen-SSD Balance#	(100.0)	1146	1090	1065	1094
80019	Eastern Fringe#	(85.0)	1076	1102	1022	1144
89009	Remainder of ACT	(58.7)	1035	1058	1049	1065

Note: Scores are not shown for SLAs in the Division with estimated populations of less than 100 (refer to Table 11)
SLA group: see Table 11 for codes for the individual SLAs in this group

Statistical geography of the ACT DGP

The Australian Capital Territory DGP covers 3,292 square kilometres, based on 2001 SLA data.

The postcodes in the Division (as per the Department of Health and Ageing web site) are in Table 10.

Table 10: Postcodes in ACT DGP, 2004

Postcode		Postcode		Postcode	
Postcode	% of population in the Division*	Postcode	% of population in the Division*	Postcode	% of population in the Division*
200	100	2611	100	2901	100
2600	100	2612	100	2902	100
2601	100	2614	100	2903	100
2602	100	2615	100	2904	100
2603	100	2616	100	2905	100
2604	100	2617	100	2906	100
2605	100	2618	100	2907	100
2606	100	2619	100	2911	100
2607	100	2620	50	2912	100
2608	100	2621	50	2913	100
2609	100	2900	100	2914	100

* 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
Source: Department of Health and Ageing web site (accessed online version as at February 2005): http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pcd-programs-divisions-divspc.htm

In the ACT Division, Statistical Local Areas (SLAs) are a mix of local government areas (LGAs) and SLAs. The SLAs of Gunning, Queanbeyan and Yarrowlumla are based on LGAs: Yarrowlumla has been split into two SLAs, Part A and Part B. The other SLAs - those in the ACT - are based on suburbs. As many suburbs have very small populations, they have been grouped to form areas of larger population: the groupings are those used in HealthWIZ. The individual suburbs and groups of suburbs that comprise the Division are listed in Table 13. The SLA group name does not in all cases include the names of all suburbs (SLAs) in the group: all relevant SLA codes are shown in the table.

Table 11: SLAs/SLA groups in ACT DGP by 2001 boundaries

SLA code[1]	SLA/SLA group name	Per cent of SLA/ SLA group's population in the Division*	Estimate of the SLA's 2004 population in the Division
13600	Gunning	5.6	138
16450	Queanbeyan	52.4	18,607
18651	Yarrowlumla - Part A	49.0	4,978
18652	Yarrowlumla - Part B	50.0	142
18700	Yass	2.8	298
80089, 80369, 80639, 80909, 81449, 81809, 82169, 86759, 87209, 87479, 88289, 88919	Canberra Central	100.0	21,031
80189, 81889, 81989, 83609, 85229, 86389, 88559	Canberra North	100.0	25,871
80239, 83529, 83689, 86039, 86249, 86279, 86719	Gungahlin	100.0	29,627
80279, 81629, 83879, 85679, 86669, 87569, 88649	Belconnen South	100.0	18,762
80339, 81549, 83289, 88189	Tuggeranong South	99.9	17,406
80459, 81179, 82619, 82709, 82889, 83969, 84149, 85139, 85589, 85949, 87659	Belconnen West	100.0	38,601
80549, 82139	Belconnen-SSD Balance	100.0	4,945
80609, 80819, 81359, 83159, 84509, 87289, 88019	Tuggeranong South East	100.0	30,759
80729, 82259, 83249, 84779, 85409	Belconnen North	100.0	23,271
81089, 82079, 82529, 84059, 87389, 87749, 88469, 88739, 88829	Weston Creek	100.0	22,475
81269, 85319, 86489, 86939	Woden Central	100.0	7,188
81719, 83069, 84239	Woden North	100.0	11,184
82349, 83339, 85489, 86129	Tuggeranong North East	100.0	14,288
82439, 84419, 85859, 86849, 88109	Woden South	100.0	13,440
82789, 83429, 84959, 86219, 87119	Canberra South	100.0	15,968
82979, 83789, 84329, 84589, 86309, 87029, 87929	Eastern Fringe	85.0	1,046
83379, 86579, 88379	Tuggeranong North West	100.0	11,113
84869	Kambah	100.0	16,239
85049, 85769	Kowen and Majura	50.0	125
87839	Stromlo	100.0	#
89009	Remainder of ACT	58.7	221

* 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
[1] For further details refer to Australian Standard Geographical Classification, 2001, ABS Cat No. 1216.0, 2001
Not shown as the total population is less than 100

Supporting data

The data used in Figure 5 to illustrate the rates of premature mortality in the Division are shown below in Table 12.

Table 12: Deaths before 75 years of age by major condition group and selected cause, ACT DGP‡ and Australia, 2000-02[*]

Indirectly age standardised rate per 100,000 population

Variable	ACT DGP‡		Australia	
	No.	Rate	No.	Rate
Circulatory system diseases	437	59.5	38,357	72.3
Ischaemic heart disease	256	34.9	23,364	44.1
Cerebrovascular disease – stroke	84	11.7	6,920	13.0
Cancer	783	103.2	60,603	114.3
Cancer of the trachea, bronchus & lung	131	17.9	12,715	24.0
Respiratory system diseases	103	14.6	9,726	18.3
Chronic lower respiratory disease	77	11.0	6,657	12.6
Injuries and poisonings	261	27.2	18,573	35.0
Suicide	109	11.4	6,706	12.6
Motor vehicle accidents	45	4.7	5,014	9.5
Other causes	320	39.3	26,735	50.4
Diabetes mellitus	37	5.1	3,734	7.0

[*] **'No.' is the total number of deaths for the 2000-02 period: 'Rate' is an annual rate, based on the 3-year average**
‡ **See note under 'Data converters and mapping' re calculation of Division totals**

The data used to illustrate the prevalence estimates of chronic disease (Figure 6), measures of self-reported health (Figure 7), and selected risk factors (Figure 8), are shown in Table 13 below.

Table 13: Estimates of chronic disease and associated risk factors ACT DGP‡ and Australia, 2001

Indirectly age standardised rate per 1,000 population

Variable	ACT DGP‡	Australia
Chronic disease and injury (Figure 6)		
Respiratory system diseases	383.6	310.8
Asthma	121.8	118.3
Circulatory system diseases	156.0	171.5
Diabetes type 2	20.2	23.4
Injury event	121.1	121.2
Mental & behavioural disorders	88.6	97.6
Musculoskeletal system diseases	320.2	326.2
Arthritis	115.6	138.8
- Osteoarthritis	71.1	74.9
- Rheumatoid arthritis	20.2	23.6
Osteoporosis (females)	30.1	26.4
Measures of self-reported health (Figure 7)		
Very high psychological distress levels (18+ years)	25.5	36.6
Fair or poor self-assessed health status (15+ years)	151.4	184.0
Risk factors (Figure 8)		
Overweight (not obese) males (15+ years)	378.6	389.7
Obese males (15+ years)	139.2	145.9
Overweight (not obese) females (15+ years)	211.4	223.9
Obese females (15+ years)	105.6	148.0
Smokers (18+ years)	221.6	248.0
Physical inactivity (15+ years)	257.3	315.5
High health risk due to alcohol consumed (18+ years)	39.5	42.1

‡ **See note under 'Data converters and mapping' re calculation of Division totals**

References

Australian Bureau of Statistics (ABS) (2002). *2001 National Health Survey: summary of results.* Australia. (ABS Cat. No. 4364.0). Canberra: ABS.

National Public Health Partnership (NPHP) (2001). *Preventing Chronic Disease: A Strategic Framework.* Melbourne, Victoria.

Thacker S, Stroup D & Rothenberg R (1995). Public health surveillance for chronic conditions: a scientific basis for decisions. *Statistics in Medicine* 14: 629-641.

World Health Organization (2002). *The World Health Report 2002: Reducing Risks, Promoting Healthy Life.* Geneva: World Health Organization.

Acknowledgements

Further developments and updates

Subject to agreement and funding, a number of developments could be undertaken:

- Details of hospitalisations potentially avoidable through ambulatory care interventions are currently being prepared and will be forwarded to Divisions (and posted on the PHIDU web site) when they are available. Other enhancements will be considered as appropriate datasets become available.

The profiles could be updated as the data are updated. For example:

- Population estimates, avoidable hospitalisations, immunisation, and GP activity and workforce data – annually;
- Chronic disease estimates – three-yearly;
- Census data – five-yearly.

Any developments would be informed by consultation, including with Divisions.

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