

# Population health profile of the Brisbane North Division of General Practice

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The data in this report are designed to be used for needs assessment and planning purposes: while they are based on the best available data and analytic processes, data available by postcode or Statistical Local Area, as used in this report, cannot be precisely translated to Division. Division totals in the report should, therefore, be seen as estimates. Interpretation of differences between data in this profile and similar data from other sources needs to be undertaken with care as such differences may be due to the use of different methodology to produce the data.

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# Population health profile of the *Brisbane North Division of General Practice*

## Introduction

This profile has been designed to provide a description of the population of the Brisbane North 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 17.

## Contents

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

- a socio-demographic profile (pages 2-6);
- GP workforce data (page 7);
- immunisation rates (page 7);
- rates of premature death (page 8); and
- estimates of the prevalence of chronic disease and selected risk factors (pages 9-13).

## Key indicators

<b>Location:</b>	Queensland	
<b>Division number:</b>	405	
<b>Population‡:</b>	<b>No.</b>	<b>%</b>
Total	580,055	
65+	64,488	11.1%
<25	199,358	34.4%
Indigenous	6,886	1.3%
<b>Disadvantage score<sup>1</sup>:</b>	1051	
<b>GP services per head of population:</b>		
Division‡	4.6	
Australia	4.7	
<b>Population per FTE GP:</b>		
Division‡	1,274	
Australia	1,403	
<b>Premature death rate<sup>2</sup>:</b>		
Division‡	254.9	
Australia	290.4	

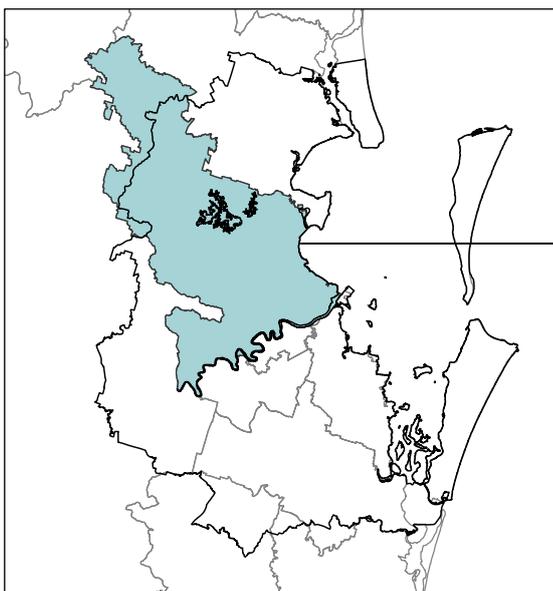
<sup>1</sup> Numbers above 1000 (the index score for Australia) indicate the Division is relatively advantaged

<sup>2</sup> Deaths at ages 0 to 74 years per 100,000 population

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

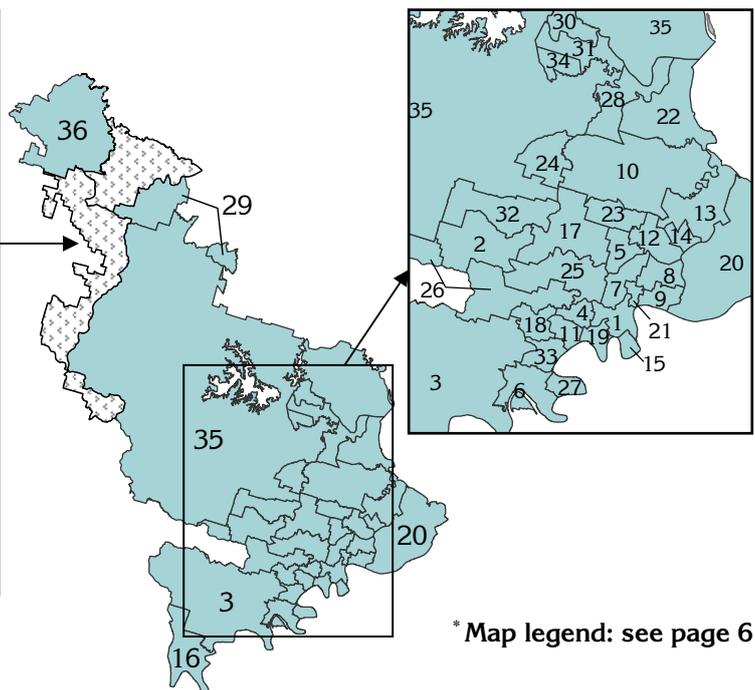
## Brisbane North Division of General Practice

*Brisbane Divisions of General Practice*



— Brisbane Divisions of General Practice  
 — Brisbane Statistical Division

*Brisbane North DGP by SLA/SLA group*



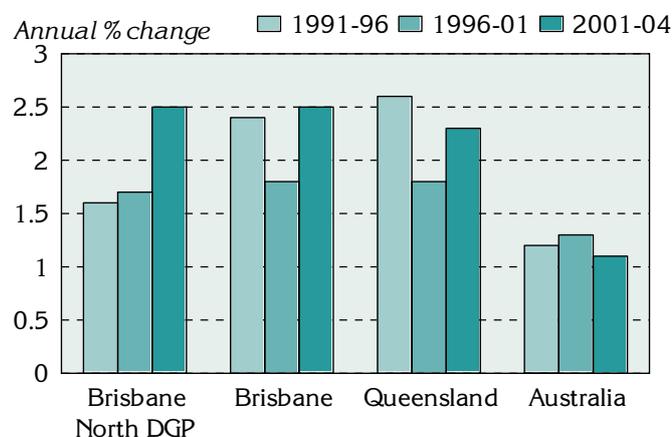
\* Map legend: see page 6

# Socio-demographic profile

## Population

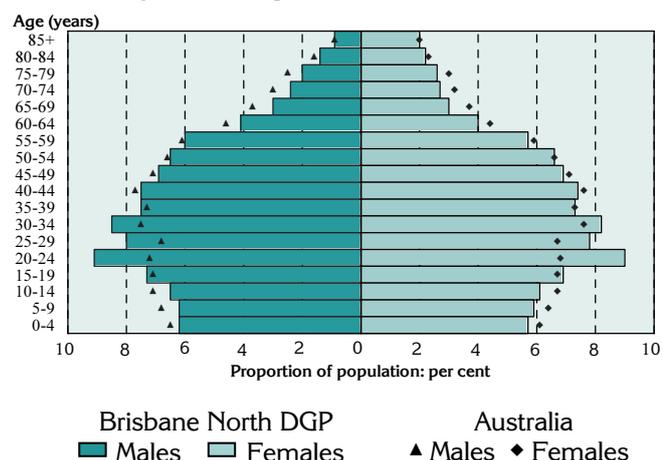
The Brisbane North DGP had an Estimated Resident Population of 580,055 at 30 June 2004.

**Figure 1: Annual population change, Brisbane North DGP‡, Brisbane, Queensland and Australia, 1991 to 1996, 1996 to 2001 and 2001 to 2004**



Over the five years from 1991 to 1996, the Division's population increased by 1.6% on average each year, lower than in Brisbane (2.4%) and Queensland (2.6%), but higher than for Australia (1.2%). From 1996 to 2001, the annual percentage increase in the Division was 1.7%, lower than for Brisbane and Queensland (both 1.8%), and higher than for Australia (1.2%). The growth rate of 2.5% per year from 2001 to 2004 was equal to the annual increase for Brisbane, and higher than for Queensland (2.3%) and for Australia (1.1%).

**Figure 2: Population in Brisbane North DGP‡ and Australia, by age and sex, 2004**



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 14 years;
- from 20 to 34 years – higher proportions of males and females (most notable at age 20 to 24 years); and
- at older ages - lower proportions of males and females aged 60 to 79 years.

**Table 1: Population by age, Brisbane North DGP‡ and Australia, 2004**

Age group (years)	Brisbane North DGP		Australia	
	No.	%	No.	%
0-14	106,114	18.3	3,978,751	19.8
15-24	93,244	16.1	2,762,769	13.8
25-44	180,627	31.1	5,881,048	29.3
45-64	135,582	23.4	4,864,037	24.2
65-74	32,339	5.6	1,374,792	6.8
75-84	23,825	4.1	934,505	4.7
85+	8,325	1.4	295,602	1.5
<b>Total</b>	<b>580,055</b>	<b>100.0</b>	<b>20,091,504</b>	<b>100.0</b>

As shown in the age-sex pyramid above, Brisbane North DGP had a lower proportion of children than Australia as a whole, with 18.3% at ages 0 to 14 years (compared to 19.8%) Table 1). Conversely, there were more people aged 15 to 44 years (16.1% and 31.1%) compared to Australia (13.8% and 29.3%). The proportions of the Division's population aged 45 years and over were marginally lower than those for Australia.

The Brisbane North DGP comprised 6.0% of people born in predominantly non-English speaking countries and resident in Australia for five years or more (Table 2), compared to 7.6% in Brisbane as a whole. Recent arrivals (those resident in Australia for less than five years) from non-English speaking countries comprised 2.1% of the Division's population, consistent with that for Brisbane (2.0%).

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

Of these residents, 0.8% had poor proficiency in English (determined when people aged five years and over born overseas in predominantly non-English speaking countries reported in the Census speaking another language and speaking English 'not well' or 'not at all'), less than the proportion in Brisbane (1.4%), and Queensland (0.9%).

**Table 2: Non-English speaking born, Brisbane North DGP, Brisbane, Queensland and Australia, 2001**

People born in predominantly non-English speaking countries	Brisbane North DGP		Brisbane		Queensland		Australia	
	No.	%	No.	%	No.	%	No.	%
Resident in Australia for five years or more	31,428	6.0	122,983	7.6	204,783	5.8	2,019,410	10.8
Resident in Australia for less than five years	10,936	2.1	32,516	2.0	49,081	1.4	408,074	2.2
Poor proficiency in English <sup>1</sup>	4,154	0.8	21,426	1.4	30,109	0.9	425,399	2.4

<sup>1</sup> 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, Brisbane North DGP, 2001**



Australian-born people comprised 81.5% of the Division's population, above the Australian figure of 72.6%. Of the 10.0% of people from English speaking countries, 5.4% were from the UK and Eire. The major birthplaces of the non-English speaking population include Italy (0.7%); Germany and the Philippines (0.5%); and China, India, Malaysia and The Netherlands (all 0.4%).

## 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 Brisbane North DGP had a lower proportion of single parent families (9.9%) compared to Brisbane (11.6%), and a lower proportion of Aboriginal and Torres Strait Islanders (1.3%, compared with 1.8% for Brisbane) (Figure 4, Table 3).

Full-time secondary school education participation of 16 year olds living in the Division (85.3%) was higher than that for Brisbane (80.3%).

A lower proportion of the Division's households received rent assistance from Centrelink (15.2%) compared to Brisbane (18.4%), and there were fewer dwellings rented from the State housing authority, (3.1%, compared to 4.3%). The proportion of dwellings with no access to a motor vehicle (10.8%) was slightly higher than that for Brisbane (9.8%) and for Queensland (9.3%).

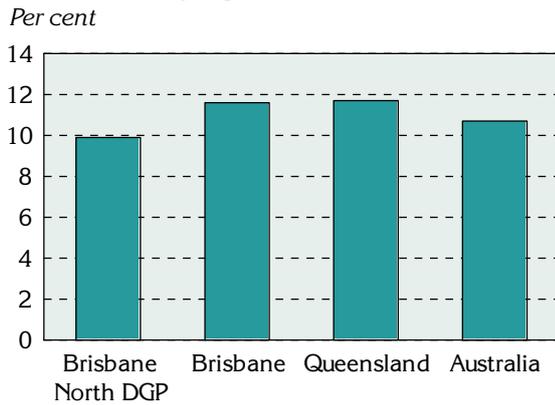
The Division had higher proportions of the population who reported using, at home, a computer (50.4%) and the Internet (36.5%), compared to Brisbane (46.0% and 31.7%).

These socioeconomic indicators show the Division to comprise a population of higher socioeconomic status: see also the note on page 5 (Summary of socioeconomic ranking).

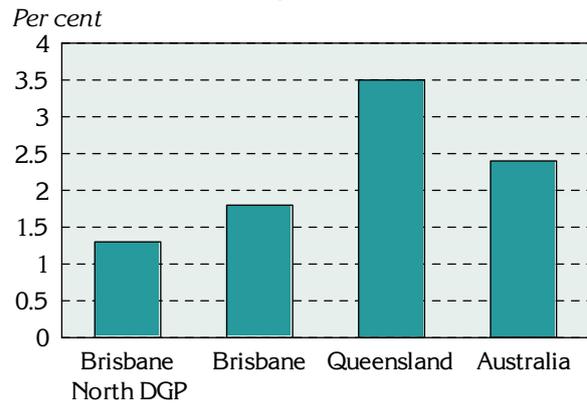
**Figure 4: Socio-demographic indicators, Brisbane North DGP, Brisbane, Queensland and Australia, 2001**

*Note the different scales*

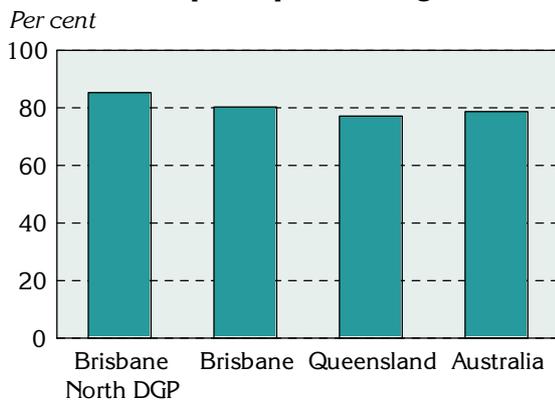
**Single parent families**



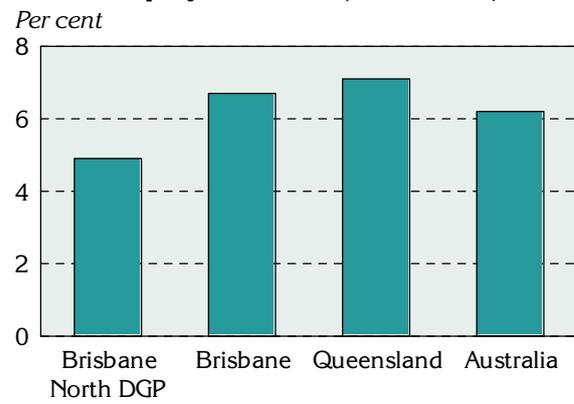
**Indigenous‡**



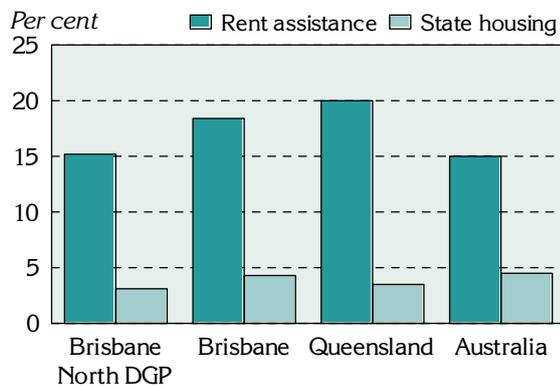
**Education participation at age 16‡**



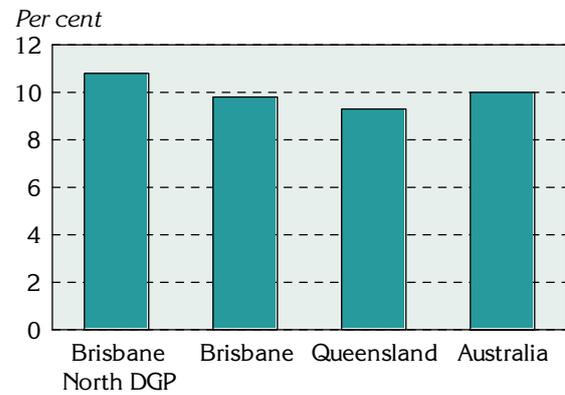
**Unemployment rate (June 2003)‡**



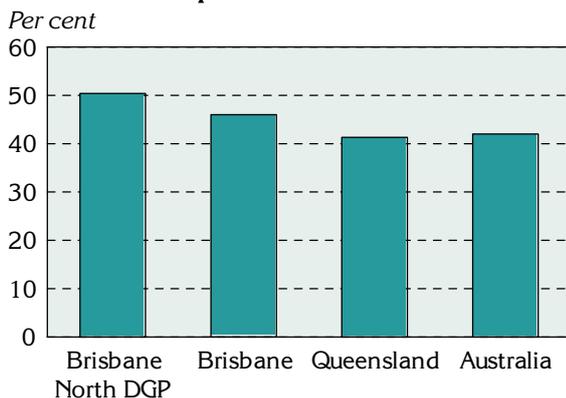
**Households receiving rent assistance & Dwellings rented from State housing authority**



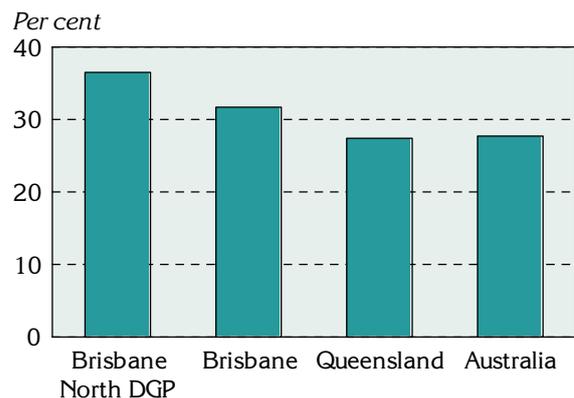
**Dwellings with no motor vehicle**



**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, Brisbane North DGP, Brisbane, Queensland and Australia, 2001**

Indicator	Brisbane North		Brisbane		Queensland		Australia	
	No.	%	No.	%	No.	%	No.	%
Single parent families	13,391	9.9	49,762	11.6	109,687	11.7	529,969	10.7
Indigenous‡	6,886	1.3	29,641	1.8	125,908	3.5	458,261	2.4
Full-time secondary school education at age 16‡	5,899	85.3	18,673	80.3	40,051	77.1	130,198	78.7
Households: rent assistance	29,868	15.2	107,911	18.4	253,773	20.0	1,006,599	15.0
Dwellings rented from the State housing authority	6,197	3.1	26,043	4.3	47,286	3.5	317,171	4.5
Dwellings: no motor vehicle	21,978	10.8	59,167	9.8	125,606	9.3	708,073	10.0
Computer use at home	264,786	50.4	739,819	46.0	1,481,238	41.3	7,881,983	42.0
Internet use at home	190,662	36.5	510,705	31.7	964,143	27.4	5,199,286	27.7

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

The unemployment rate of 4.9 % in Brisbane North DGP was lower than the rate for Brisbane (6.7%), and Queensland (7.1%) (Figure 4, Table 4). The labour force participation rate (79.4%) was higher than the rates for Brisbane (76.0%) and for Queensland (75.4%). Similarly, the female labour force participation rate (75.3%) was higher than for Brisbane (71.4%) and for Queensland (69.5%).

**Table 4: Unemployment and labour force participation, Brisbane North DGP, Brisbane, Queensland and Australia, 2003**

Labour force indicators	Brisbane North		Brisbane		Queensland		Australia	
	No.	%	No.	%	No.	%	No.	%
Unemployment rate‡	15,640	4.9	59,542	6.7	136,589	7.1	623,791	6.2
Labour force participation‡	316,857	79.4	889,867	76.0	1,926,589	75.4	10,038,147	75.2
Female labour force participation (2001)	107,109	75.3	302,824	71.4	618,570	69.5	3,306,521	69.7

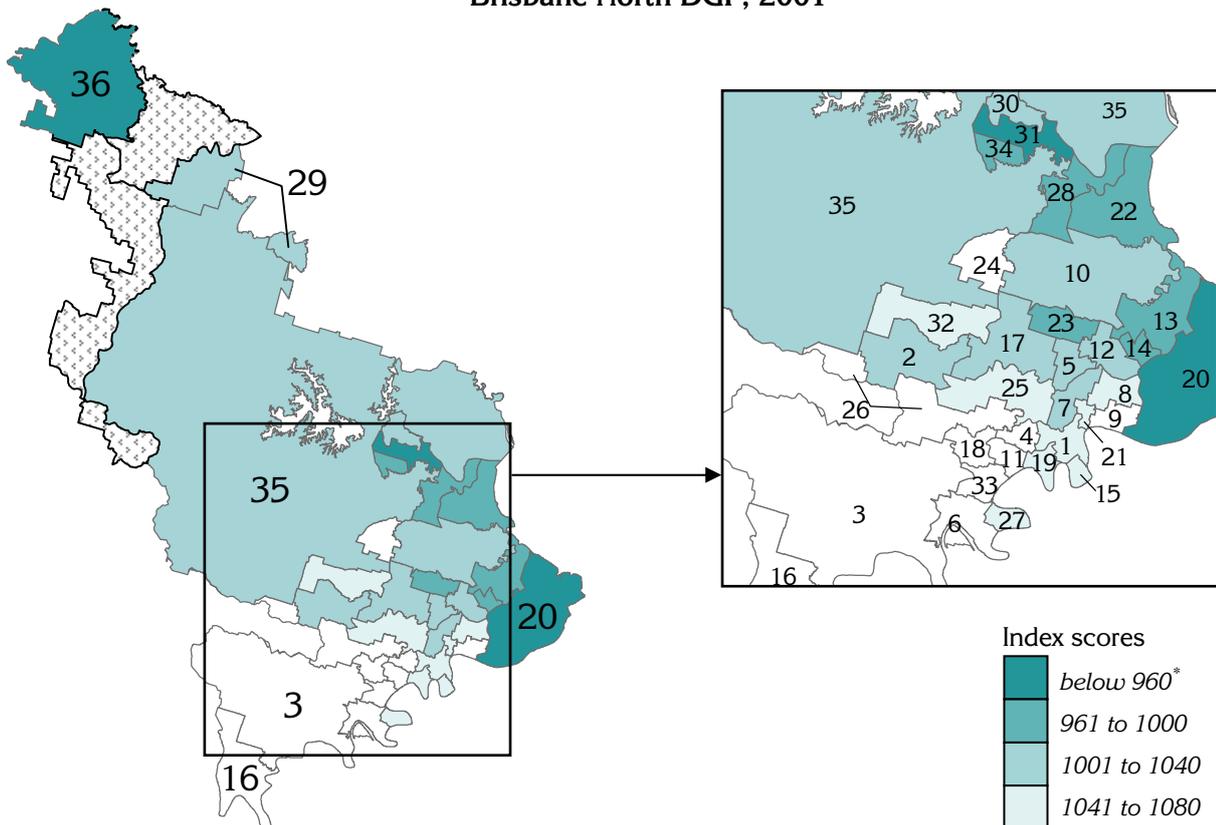
‡ See note under 'Data converters and mapping' re calculation of Division total

### Summary of the socioeconomic ranking of the Brisbane North DGP

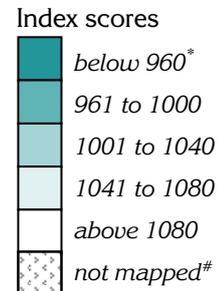
Following the 2001 Census, the Australian Bureau of Statistics (ABS) produced four socioeconomic indexes for areas (SEIFA) which describe various aspects of the socioeconomic make-up of populations in areas. The scores for these indexes for individual Statistical Local Areas (SLAs) or groups of SLAs in Brisbane North DGP are shown in the supporting information, Table 9, page 17: SLAs are described on page 19.

The Brisbane North DGP area's SEIFA Index of Relative Socio-Economic Disadvantage (IRSD) score is 1051, higher (5.1%) than the average for Australia (1000), and Brisbane (1008); this highlights the higher socioeconomic status profile of the Division's population. There are wide variations in the IRSD within the Division at the SLA level (Map 1).

**Map 1: Index of Relative Socio-Economic Disadvantage by SLA/SLA group, Brisbane North 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.*



\* most disadvantaged  
# data were not mapped: see note under 'Methods' re Data converters and mapping.

**Alphabetical key to SLA/SLA group, Brisbane North DGP, 2001**

Albany Creek	24	Kedron	5
Albion	21	Keperra/Upper Kedron	2
Anstead/Moggill	16	Lawnton	31
Ascot/Hamilton	9	Milton/Paddington	11
Ashgrove/The Gap	26	New Farm	15
Bald Hills	28	Northgate	14
Bardon	18	Nudgee Beach/Virginia	13
Bracken Ridge/Sandgate	22	Nundah/Wavell Heights	12
Bray Park	34	Petrie	30
Bridgeman Downs/Boondall	10	Pine Rivers Balance	35
Caboolture - Part B	36	Pinkenba-Eagle Farm	20
Caboolture Balance	29	Red Hill/Kelvin Grove	4
Chelmer/Taringa	6	St Lucia	27
Chermside/Chermside West	23	Stafford Heights/Mitchelton	17
City/Spring Hill	19	Toowong	33
Clayfield/Hendra	8	Upper Brookfield/Fig Tree Pocket	3
Herston/Newstead	1	Wilston/Enoggera	25
Hills District	32	Windsor/Wooloowin	7

## General medical practitioner (GP) supply

A total of 449.8 full-time equivalent (FTE) GPs, and 499.6 full-time workload equivalent (FWE<sup>1</sup>) GPs worked in the Brisbane North DGP in 2003/04 (Table 5). Of the FWE GPs, 33.7% were female, and 29.9% were over 55 years of age (compared to 26.7% and 25.2%, respectively, for Queensland).

There was minimal variation in the rates of population per FTE and FWE GP for the population measures shown, other than for the estimated day-time population, for which rates were 12.0% above those calculated on the Usual Resident Population (usual residents of the Division counted in Australia on Census night), reflecting the net movement of people into the Division during the day for employment. The rates of population per FWE GP were lower than the FTE rates.

Based on the average Estimated Resident Population as at 30 June 2003 and 30 June 2004, the rate of population per FTE GP in Brisbane North DGP was lower than the rates for Queensland and Australia, indicating a higher level of provision of GP services in the Division. The FWE rate differed little from the rates for Queensland and Australia.

**Table 5: Population per GP in Brisbane North DGP, Queensland and Australia, 2003/04**

Population measure	Population	GPs		Population per GP	
		FTE	FWE	FTE	FWE
<b>Brisbane North DGP</b>					
Census count (adjusted)*	559,124	449.8	499.6	1,243	1,119
Usual Resident Population (URP) (adjusted)*	556,436	..	..	1,237	1,114
Estimated Resident Population (ERP)	573,168	..	..	1,274	1,147
Day-time population (estimated on URP)* ‡	623,442	..	..	1,386	1,248
<b>Queensland (ERP)</b>	3,841,538	2,739	3,256	1,403	1,180
<b>Australia (ERP)</b>	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 95.7% of children in the Division in 2002 were fully immunised at age one, above 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 75.8% compared to 70.0% for Australia, with 23.1% immunised at a local government council.

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

Provider	Brisbane North	Australia
	DGP	
	%	%
General practitioner	75.8	70.0
Local government council	23.1	16.6
Community health centre/ worker	0.1	9.8
Public hospital	0.6	2.1
Aboriginal health service/ worker	0.3	0.9
Other*	0.0	0.6
<b>Total: Per cent</b>	<b>100.0</b>	<b>100.0</b>
<b>Number</b>	<b>122,018</b>	<b>3,843,610</b>

\* Includes immunisations in/ by State Health Departments, RFDS and private hospitals

<sup>1</sup> 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.

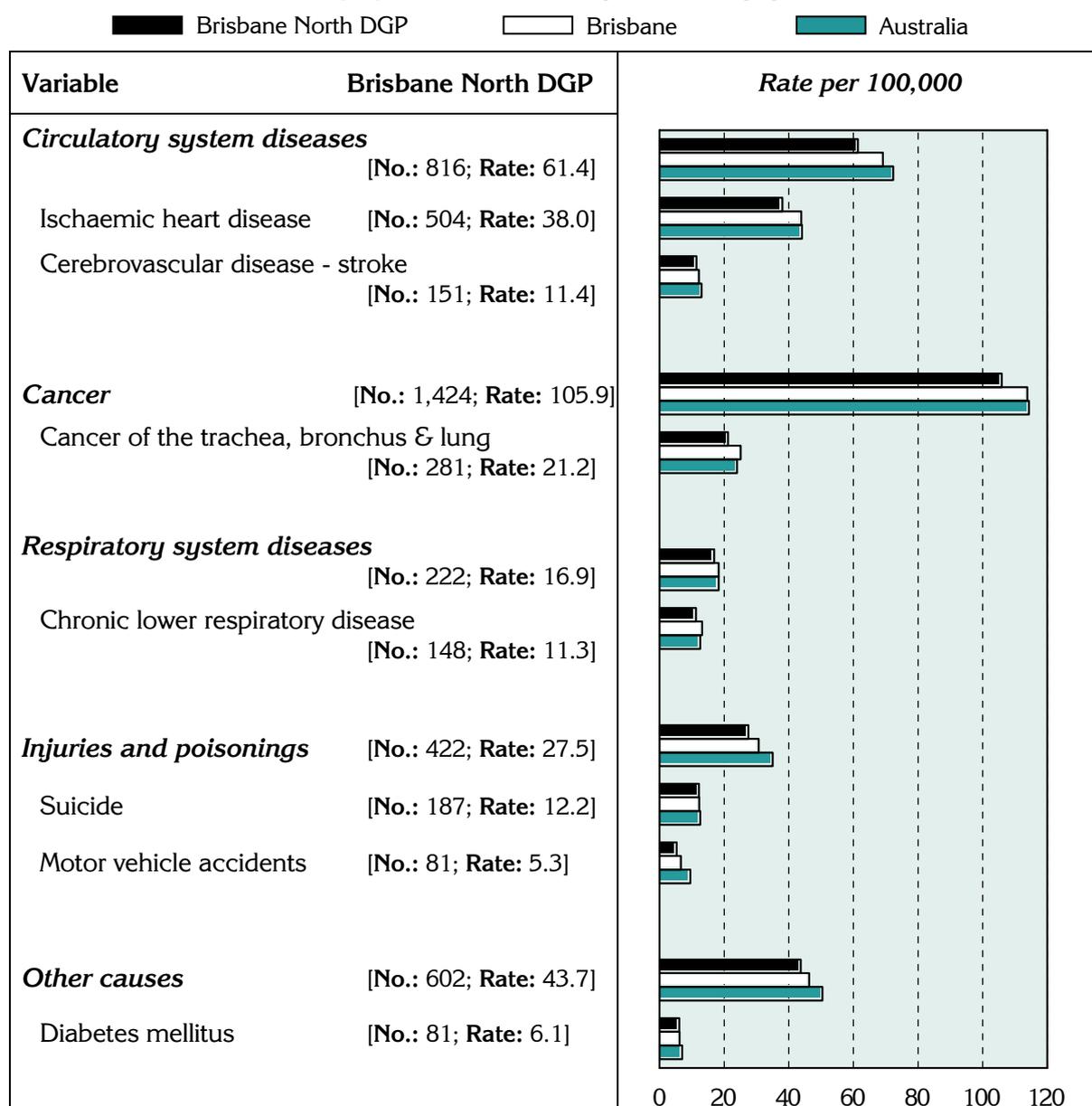
The 'all causes' death rate in the Division at ages 0 to 74 years (254.9 deaths per 100,000 population) is lower than for Brisbane (277.8) and well below that for Australia (290.4): the rates have been age standardised to allow for comparisons between areas, regardless of differences in age profiles between the Division and Australia.

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

The data on which the following chart is based are in Table 11.

**Figure 5: Deaths before 75 years of age by major condition group and selected cause, Brisbane North DGP‡, Brisbane 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 SLAs within the Division: note that the estimates have been predicted from self-reported data, and are not based 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 15-16. The data on which the following charts are based are in Table 12.

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 are 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), similar proportions of the population in Brisbane North DGP reported having any of the selected chronic conditions compared to Australia as a whole (Figure 6); that is, the prevalence rates per 1,000 population were consistent with the national average.

### 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.

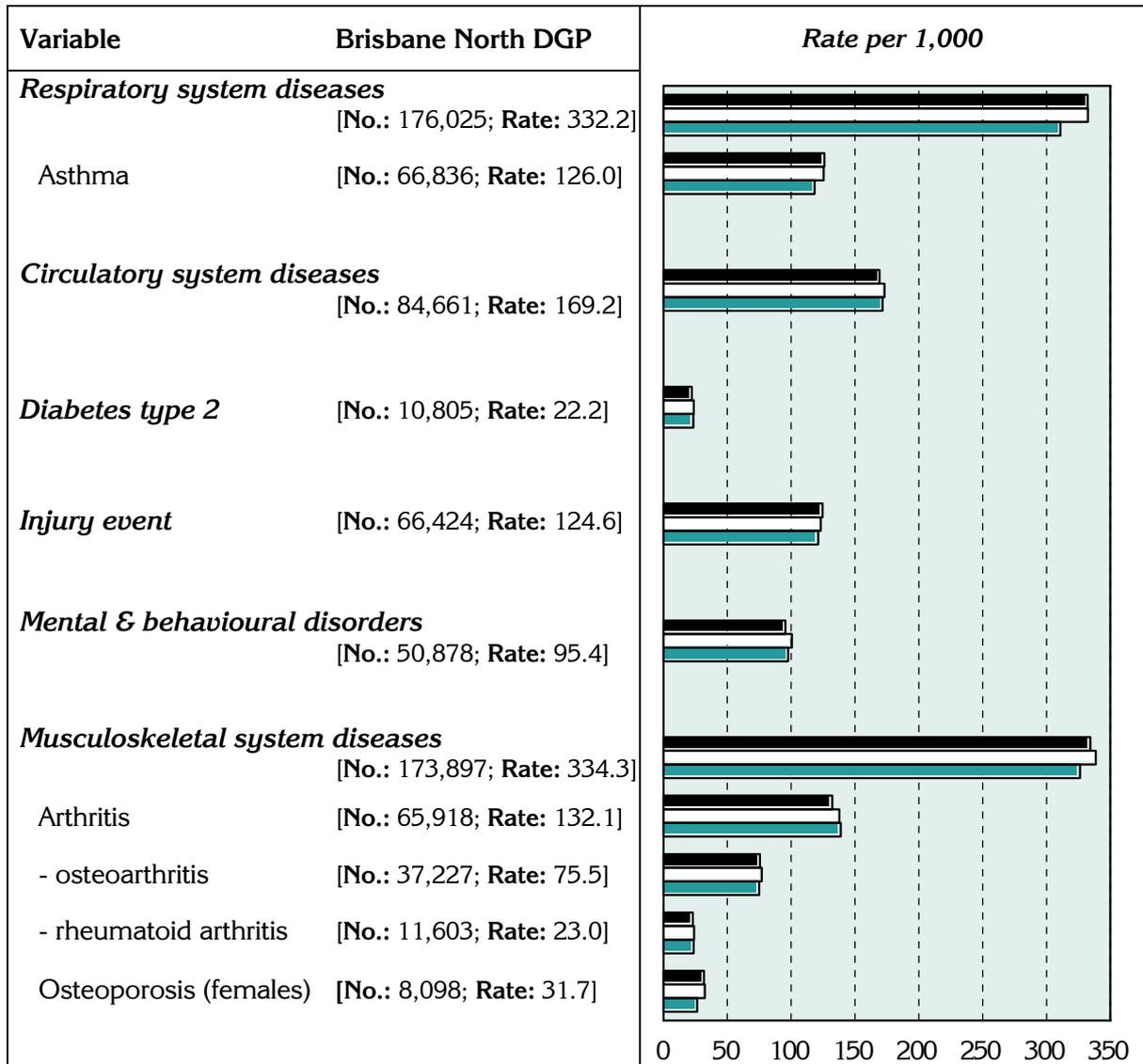
The population of the Division aged 18 years and over is estimated to have a fewer people with very high psychological distress levels as measured by the K–10 compared to Australia as a whole (Figure 7). The proportion of the population aged 15 years and over estimated to have reported their health as ‘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, Brisbane North DGP‡, Brisbane and Australia, 2001**

*Indirectly age standardised rate per 1,000 population*

■ Brisbane North DGP    □ Brisbane    ■ Australia



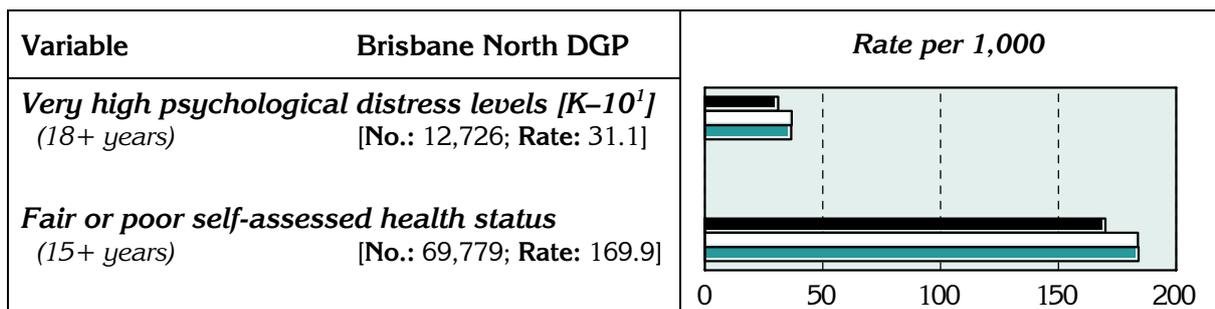
\* 'No.' is a weighted estimate of the number of people in Brisbane North DGP reporting each chronic condition and is derived from synthetic predictions from the 2001 NHS

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

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

*Indirectly age standardised rate per 1,000 population*

■ Brisbane North DGP    □ Brisbane    ■ Australia



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

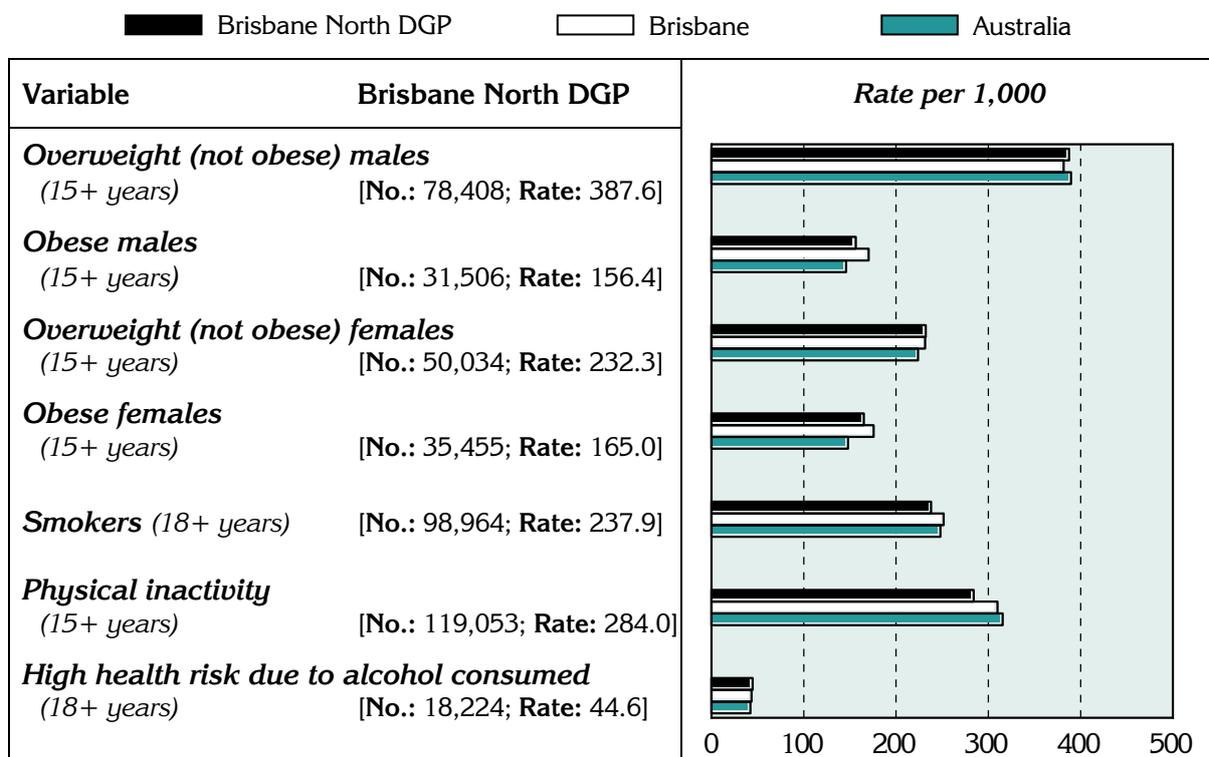
<sup>1</sup> Kessler 10

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

## Prevalence estimates: risk factors‡

The Brisbane North DGP reported similar rates (when compared with the Australian population) for the selected risk factors, except for obesity in males and females (Figure 8).

**Figure 8: Estimates\* of selected risk factors, Brisbane North DGP‡, Brisbane and Australia, 2001**  
Indirectly age standardised rate per 1,000 population



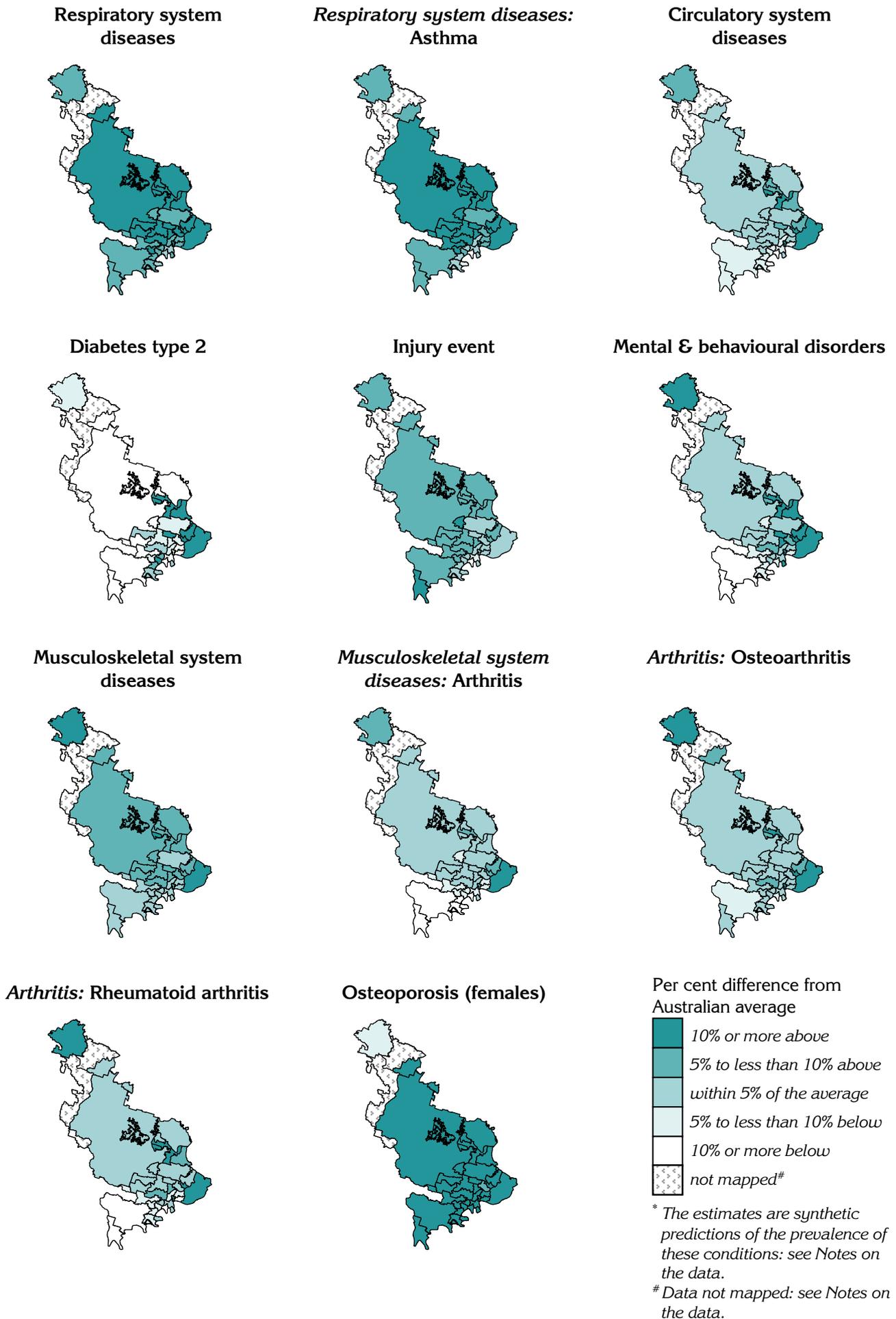
\* 'No.' is a weighted estimate of the number of people in Brisbane North DGP with these risk factors and has been predicted using data from the 2001 NHS and known data for the Division

‡ 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 10, page 19, 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, Brisbane North DGP, 2001



**Map 3: Estimates\* of measures of self-reported health by SLA/SLA group, Brisbane North DGP, 2001**

**Very high psychological distress levels [K-10<sup>1</sup>] (18+ years)**

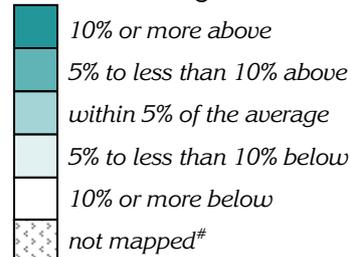


<sup>1</sup> Kessler 10

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



Per cent difference from Australian average



\* 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 4: Estimates\* of selected risk factors by SLA/SLA group, Brisbane North DGP, 2001**

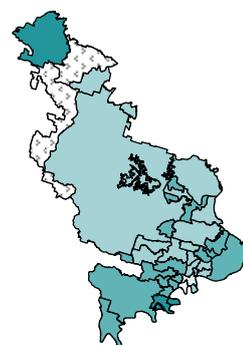
**Overweight (not obese) males (15+ years)**



**Obese males (15+ years)**



**Overweight (not obese) females (15+ years)**



**Obese females (15+ years)**



**Smokers (18+ years)**



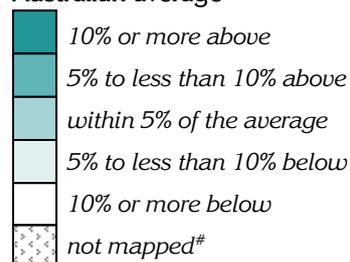
**Physical inactivity (15+ years)**



**High health risk due to alcohol consumed (18+ years)**



Per cent difference from Australian average



\* 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

### General

Unless stated otherwise, references to 'country Queensland' relate to the remainder of the state areas in the Queensland Statistical Division (excluding the Brisbane Statistical Division).

### Data sources

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

**Table 7: Data sources**

Section	Source
<b>Key indicators</b>	
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
<b>Socio-demographic profile</b>	
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 <sup>1</sup> , except for the following indicators: - <i>Indigenous</i> – Experimental estimates of Aboriginal and Torres Strait Islander people, ABS 2001 (unpublished) - <i>Full-time secondary education participation at age 16</i> – Census 2001 (unpublished) - <i>Households receiving rent assistance</i> – Centrelink, December Quarter 2001 (unpublished) - <i>Unemployment rate / Labour force participation</i> – extracted from <i>Small Area Labour Markets Australia</i> , June Quarter 2003, Department of Employment and Workplace Relations
Map 1; Table 9	ABS SEIFA package, Census 2001
<b>General medical practitioner (GP) supply</b>	
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 <sup>2</sup> , ABS Population Census 2001, scaled to 2003/04 - Usual Resident Population <sup>3</sup> , 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
<b>Immunisation</b>	
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)
<b>Premature mortality</b>	
Figure 5; Table 11	ABS Deaths, 2000 to 2002
<b>Chronic diseases and associated risk factors<sup>4</sup></b>	
Figures 6, 7 and 8; Maps 2, 3 and 4; Table 12	Estimated from 2001 National Health Survey (NHS), ABS (unpublished)

<sup>1</sup> All data extracted from Usual Residents Profile, except for data variables only released in the Basic Community Profile

<sup>2</sup> *Census count* - those counted in the Division on Census night, including tourists, business people and other visitors

<sup>3</sup> *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

<sup>4</sup> 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
<b>Estimates of chronic disease and injury</b> (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
<b>Estimates of measures of self-reported health</b> (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
<b>Estimates of selected risk factors</b> (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 (see page 18).

#### [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 10.

#### [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](http://www.publichealth.gov.au)

### A definition of population health

Population health, in the context of general practice, has been defined<sup>1</sup> 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”.<sup>2</sup> This recognises the importance of achieving improvements to Aboriginal and Torres Strait Islander health and respects the particular health issues facing Indigenous people.

<sup>1</sup> “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)

<sup>2</sup> As defined in the Strategic Framework for Aboriginal and Torres Strait Islander Health

### SEIFA scores

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](http://www.abs.gov.au). The scores for these indexes for each Statistical Local Area (SLA) or part SLA in Brisbane North 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, Brisbane North DGP, 2001

SLA/ SLA group name (% per cent of SLA/ SLA group in the Division)	Index score				
	Disadvantage	Advantage	Economic Resources	Education & Occupation	
Herston/Newstead <sup>#</sup>	(100.0)	1062	1120	1110	1137
Keperra/Upper Kedron <sup>#</sup>	(100.0)	1027	1041	1043	1029
Upper Brookfield/Fig Tree Pocket <sup>#</sup>	(100.0)	1135	1182	1161	1182
Red Hill/Kelvin Grove <sup>#</sup>	(100.0)	1085	1138	1100	1168
Kedron	(100.0)	1029	1046	1024	1053
Chelmer/Taringa <sup>#</sup>	(100.0)	1099	1160	1104	1194
Windsor/Woolloowin <sup>#</sup>	(100.0)	1036	1077	1057	1089
Clayfield/Hendra <sup>#</sup>	(100.0)	1065	1104	1093	1101
Ascot/Hamilton <sup>#</sup>	(100.0)	1081	1130	1125	1126
Bridgeman Downs/Boondall <sup>#</sup>	(100.0)	1022	1025	1028	1015
Milton/Paddington <sup>#</sup>	(100.0)	1093	1147	1113	1175
Nundah/Wavell Heights <sup>#</sup>	(100.0)	1018	1026	1011	1032
Nudgee Beach/Virginia <sup>#</sup>	(100.0)	989	973	..	965
Northgate	(100.0)	982	1000	992	999
New Farm	(100.0)	1055	1105	1075	1132
Anstead/Moggill	(100.0)	1118	1142	1119	1134
Stafford Heights/Mitchelton <sup>#</sup>	(100.0)	1031	1041	1030	1040
Bardon	(100.0)	1121	1162	1131	1178
City/Spring Hill <sup>#</sup>	(100.0)	1067	1131	1105	1166
Pinkenba-Eagle Farm	(100.0)	924	909	952	879
Albion	(100.0)	1059	1098	1078	1099
Bracken Ridge/Sandgate <sup>#</sup>	(100.0)	998	985	990	974
Chermside/Chermside West <sup>#</sup>	(100.0)	997	994	983	1003
Albany Creek	(100.0)	1081	1080	1100	1044
Wilston/Enoggera <sup>#</sup>	(100.0)	1063	1092	1060	1106
Ashgrove/The Gap <sup>#</sup>	(100.0)	1106	1137	1109	1143
St Lucia	(99.8)	1056	1168	1107	1208
Bald Hills	(100.0)	996	983	1003	957
Caboolture Balance	(2.3)	1033	993	1000	971
Petrie	(100.0)	1015	1004	1009	982
Lawnton	(100.0)	960	949	958	941
Hills District	(100.0)	1069	1061	1060	1040
Toowong	(100.0)	1086	1145	1091	1184
Bray Park	(100.0)	992	966	987	940
Pine Rivers Balance <sup>#</sup>	(100.0)	1034	1019	1033	993
Kilcoy	(11.4)	950	891	898	895

\* 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

# SLA group: see Table 10 for codes for the individual SLAs in this group

## Statistical geography of the Brisbane North DGP

The Brisbane North DGP covers 1,413 square kilometres, based on 2001 SLA data.

The postcodes in the Division (all 100%) are: 4000-4014, 4017-4018, 4029-4032, 4034-4037, 4051-4055, 4059-4061, 4064-4070, 4500-4503, 4509, and 4520-4521<sup>2</sup>.

<sup>2</sup> As per the 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>

Statistical Local Areas (SLAs) are defined by the Australian Bureau of Statistics to produce areas for the presentation and analysis of data. In Brisbane, SLAs are based on suburbs: as many of these have very small populations, they have in some cases 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 10. 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 10: SLAs/SLA groups in Brisbane North DGP by 2001 boundaries**

SLA code <sup>1</sup>	SLA/SLA group name	Per cent of SLA/SLA group's population in the Division*	Estimate of the SLA/SLA group's 2004 population in the Division
31004	Albion	100.0	2,227
31007, 31206, 31244, 31424, 31618	Wilston/Enoggera	100.0	23,739
31018, 31053, 31386	Anstead/Moggill	100.0	8,060
31026, 31255	Ascot/Hamilton	100.0	9,255
31034, 31064, 31075, 31121, 31236, 31556, 31653	Bridgeman Downs/Boondall	100.0	54,357
31031, 31566	Ashgrove/The Gap	99.8	28,078
31037	Bald Hills	100.0	6,669
31045, 31438, 31443, 31593	Nudgee Beach/Virginia	100.0	9,097
31048	Bardon	100.0	9,291
31067, 31228, 31233, 31274, 31427	Herston/Newstead	100.0	12,237
31072, 31078, 31173, 31514	Bracken Ridge/Sandgate	100.0	33,470
31083, 31127, 31222, 31318, 31323, 31465, 31473, 31582	Upper Brookfield/Fig Tree Pocket	100.0	33,020
31132, 31293, 31558	Chelmer/Taringa	100.0	20,836
31135, 31138	Chermside/Chermside West	100.0	12,667
31143, 31146, 31528	City/Spring Hill	100.0	10,054
31151, 31271	Clayfield/Hendra	100.0	13,639
31211, 31353, 31383, 31533, 31536	Stafford Heights/Mitchelton	100.0	34,997
31217, 31326, 31585	Keperra/Upper Kedron	100.0	15,954
31312	Kedron	100.0	11,741
31315, 31481	Red Hill/Kelvin Grove	100.0	9,254
31345, 31623, 31634	Windsor/Woolloowin	100.0	14,439
31378, 31454	Milton/Paddington	100.0	9,112
31421	New Farm	100.0	10,891
31435	Northgate	100.0	3,882
31446, 31604	Nundah/Wavell Heights	100.0	17,563
31467	Pinkenba-Eagle Farm	100.0	343
31506	St Lucia	100.0	10,458
31574	Toowong	100.0	14,572
32023	Caboolture Balance	2.3	308
34250	Kilcoy	11.4	397
35951	Albany Creek	100.0	16,366
35957	Bray Park	100.0	9,027
35958, 35961, 35963, 35978, 35988	Pine Rivers Balance	100.0	78,003
35971	Hills District	100.0	21,566
35973	Lawnton	100.0	5,632
35974	Petrie	100.0	8,853

\* 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

<sup>1</sup> For further details refer to Australian Standard Geographical Classification, 2001, ABS Cat No. 1216.0, 2001

## Supporting data

The data used in Figure 5 to illustrate the rates of premature mortality in the Division are shown below in Table 11.

**Table 11: Deaths before 75 years of age by major condition group and selected cause, Brisbane North DGP‡, Brisbane and Australia, 2000-02\***

*Indirectly age standardised rate per 100,000 population*

Variable	Brisbane North DGP‡		Brisbane		Australia	
	No.	Rate	No.	Rate	No.	Rate
<b>Circulatory system diseases</b>	816	61.4	2,781	69.1	38,357	72.3
Ischaemic heart disease	504	38.0	1,764	43.9	23,364	44.1
Cerebrovascular disease – stroke	151	11.4	488	12.2	6,920	13.0
<b>Cancer</b>	1,424	105.9	4,629	113.8	60,603	114.3
Cancer of the trachea, bronchus & lung	281	21.2	1,008	25.1	12,715	24.0
<b>Respiratory system diseases</b>	222	16.9	728	18.3	9,726	18.3
Chronic lower respiratory disease	148	11.3	523	13.2	6,657	12.6
<b>Injuries and poisonings</b>	422	27.5	1,387	30.7	18,573	35.0
Suicide	187	12.2	556	12.3	6,706	12.6
Motor vehicle accidents	81	5.3	302	6.6	5,014	9.5
<b>Other causes</b>	602	43.7	1,946	46.3	26,735	50.4
Diabetes mellitus	81	6.1	252	6.2	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 12 below.

**Table 12: Estimates of chronic disease and associated risk factors Brisbane North DGP‡, Brisbane and Australia, 2001**

*Indirectly age standardised rate per 1,000 population*

Variable	Brisbane North DGP‡	Brisbane	Australia
<b>Chronic disease and injury (Figure 6)</b>			
Respiratory system diseases	332.2	332.4	310.8
Asthma	126.0	125.4	118.3
Circulatory system diseases	169.2	173.1	171.5
Diabetes type 2	22.2	23.7	23.4
Injury event	124.6	123.2	121.2
Mental & behavioural disorders	95.4	100.5	97.6
Musculoskeletal system diseases	334.3	338.6	326.2
Arthritis	132.1	137.7	138.8
- Osteoarthritis	75.5	77.0	74.9
- Rheumatoid arthritis	23.0	24.0	23.6
Osteoporosis (females)		32.4	26.4
<b>Measures of self-reported health (Figure 7)</b>			
Very high psychological distress levels (18+ years)	31.1	36.8	36.6
Fair or poor self-assessed health status (15+ years)	169.9	183.7	184.0
<b>Risk factors (Figure 8)</b>			
Overweight (not obese) males (15+ years)	387.6	381.5	389.7
Obese males (15+ years)	156.4	170.2	145.9
Overweight (not obese) females (15+ years)	232.3	231.4	223.9
Obese females (15+ years)	165.0	175.7	148.0
Smokers (18+ years)	237.9	251.6	248.0
Physical inactivity (15+ years)	284.0	309.9	315.5
High health risk due to alcohol consumed (18+ years)	44.6	43.3	42.1

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

## References

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

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## 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](mailto:PHIDU@publichealth.gov.au)