## Population health profile of the

## **Eyre Peninsula**

## **Division of General Practice**

Population Profile Series: No. 96

#### **PHIDU**

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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 *Eyre Peninsula Division of General Practice*

#### Introduction

This profile has been designed to provide a description of the population of the Eyre Peninsula 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 20.

#### **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. country South Australia and Australia) and Aboriginal and Torres Strait Islanders elsewhere in Australia. Specific topics covered for the Eyre Peninsula Division include:

- a socio-demographic profile (pages 3-7);
- GP workforce data (page 8)
- immunisation rates (page 8); and
- rates of premature death (page 9); and
- estimates of the prevalence of chronic disease and selected risk factors for Whyalla (pages 10-12).

## **Key indicators**

**Location:** South Australia

**Division number:** 511

Population‡: No. %

Indigenous: 2,829

<25 1,657 58.6% 65+ 72 2.5%

Non-Indigenous: 53,503

<25 17,867 33.4% 65+ 7,221 13.5%

Disadvantage score<sup>1</sup>: 958

#### GP services per head of population:

Division‡ 4.8 Australia 4.7

#### Population per FTE GP:

Division‡ 1,306 Australia 1,403

#### Premature death rate<sup>2</sup>:

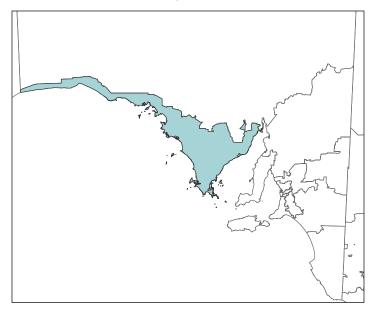
Division‡ 354.7 Australia 290.4

<sup>&</sup>lt;sup>1</sup> Numbers below 1000 (the index score for Australia) indicate the Division is relatively disadvantaged

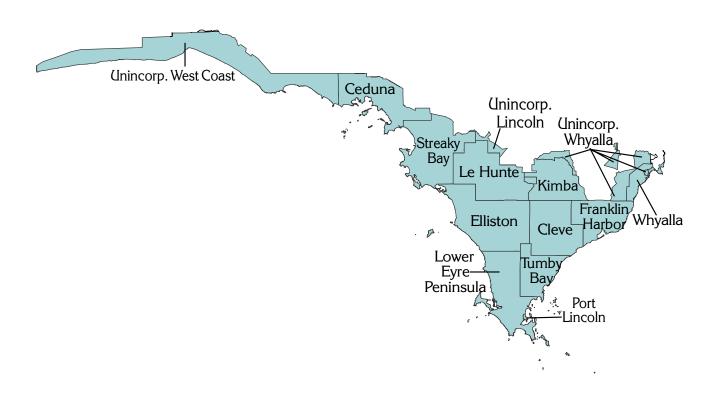
<sup>&</sup>lt;sup>2</sup> Deaths at ages 0 to 74 years per 100,000 population

<sup>\*</sup>See note "Data converters and mapping" re calculation of Division Total

# Eyre Division of General Practice SA Divisions of General Practice



Eyre Peninsula DGP by SLA



## Socio-demographic profile

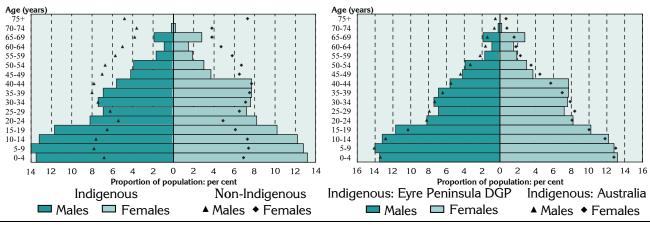
#### Population

The population figures used here have been adjusted to take account of the estimated under-counting at the 2001 Census of Aboriginal and Torres Strait Islander people.

The Eyre Peninsula DGP had a population of 56,332 at the 2001 Census. Aboriginal and Torres Strait Islander people comprised a relatively high proportion (5.0%) of the population of the Division, and had a markedly younger age structure than the non-Indigenous population in the Division. The bars in the chart for the 0 to 4 years age group clearly show the effect of high Indigenous birth rates in the Division; this gives the chart a triangular shape, other than in the 65 to 69 year age group, where the proportions are larger (Figure 1 and Table 1). The very marked drop in the proportion of the Indigenous population between each age group from the youngest ages (5 to 9 years for males and 0 to 4 for females) suggests that extremely high death rates (and perhaps out-migration) are occurring from that group through to 29 years of age, with lower, but still high, death rates at older ages.

The profile for the non-Indigenous population (shown by the shapes) is quite different and shows the impact, at younger ages, of a lower birth rate and, possibly, out-migration for schooling in the teenage years and further education and employment opportunities at ages 20 to 29 years. The marked increase at the oldest ages is suggestive of people moving into the Division to retire.

Figure 1: Population in Eyre Peninsula DGP‡, Figure 2: Indigenous population in Eyre Peninsula by Indigenous status, age and sex, 2001 DGP‡ and Australia, age and sex, 2001



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

The profile of the Indigenous population in the Division is similar to that for Indigenous people across Australia (Figure 2 and Table 1). The major differences are that the Division had:

- a higher proportion of young males aged 15 to 19 years;
- a lower proportion of males and females aged 25 to 29 years and a higher proportion of females at 35 to 39 years, and 40 to 44 years; and
- at the oldest ages, higher proportions for both males and for females at age 65 to 69 years, with much lower proportions aged 70 to 74 years and 75 years and over (it may be that the estimates for the Indigenous population at ages 60 years and over are not accurate between the age groups).

Table 1: Population by Indigenous status and age\*, Eyre Peninsula DGP‡ and Australia, 2001

Eyre Peninsula DGP‡					Αι	ıstralia		
Age group	Indige	nous	Non-Indi	genous	Indige	nous	Non-Indig	enous
(years)	No.	%	No.	%	No.	%	No.	%
0-14	1,114	39.4	11,738	21.9	178,622	39.0	3,807,808	20.1
15-24	543	19.2	6,128	11.5	83,942	18.3	2,570,934	13.6
25-44	805	28.5	15,551	29.1	128,474	28.0	5,715,858	30.2
45-64	295	10.4	12,864	24.0	54,206	11.8	4,435,376	23.4
65-74	72	2.5	3,996	7.5	10,249	2.2	1,310,587	6.9
75+	0	0.0	3,225	6.0	2,768	0.6	1,111,844	5.9
Total	2,829	100.0	53,503	100.0	458,261	100.0	18,952,407	100.0

<sup>\*</sup> Experimental estimates of Aboriginal and Torres Strait Islander people, ABS 2001

<sup>‡</sup> See note under 'Data converters and mapping' re calculation of Division totals

One third (32.6%) of the Indigenous population in Eyre Peninsula DGP lived in the Ceduna Statistical Local Area (SLA – see page 21), with one quarter each in the SLAs of Port Lincoln (26.2%) and Whyalla (25.7%) (Table 2). Unincorporated West Coast SLA had one tenth of the Indigenous population of the Division. The Lower Eyre Peninsula SLA and remaining SLAs comprised predominantly non-Indigenous residents.

Table 2: Population by Indigenous status\*, SLAs in Eyre Peninsula DGP‡, 2001

Statistical Local Area	Indigenous		Non-Indiç	jenous	Tota	Total		
	No.	%	No.	%	No.	%		
Ceduna	922	32.6	2,718	5.1	3,640	6.5		
Port Lincoln	740	26.2	13,159	24.6	13,899	24.7		
Whyalla	726	25.7	21,413	40.0	22,139	39.3		
Unincorp. West Coast	289	10.2	331	0.6	620	1.1		
Lower Eyre Peninsula	69	2.4	4,148	7.8	4,217	7.5		
Other	83	2.9	11,734	21.9	11,817	21.0		
Total	2,829	100.0	53,503	100.0	56,332	100.0		

<sup>\*</sup> Experimental estimates of Aboriginal and Torres Strait Islander people, ABS 2001

At 30 June 2004, the Estimated Resident Population of the Division was 56,219.

## Socioeconomic status and Indigenous 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. Where data are available, comparisons are made between the Indigenous and non-Indigenous populations.

At the 2001 Census, 5.0% of the population of the Eyre Peninsula DGP was estimated to be of Aboriginal or Torres Strait Islander origin, more than twice the Australian average of 2.4% (Figure 3 and Table 3). Of these, 3.0% reported poor proficiency in English (determined when Indigenous people reported in the Census speaking an Aboriginal or Torres Strait Islander language, and speaking English 'not well' or 'not at all'), lower than the proportion in country South Australia<sup>1</sup> (6.9%) and the same as for Australia.

The proportion of Indigenous single parent families in the Division (32.3%) was higher than the Indigenous rate for country South Australia (26.6%), and three times that of the Division's non-Indigenous population (11.1%).

The rate of Indigenous 16 year olds living in the Division who were involved in full-time secondary school education was 34.8%, lower than the Indigenous participation rate for country South Australia (47.2%), and substantially below the rate for the Division's non-Indigenous population (82.2%).

The proportion of the Indigenous population who lived in dwellings rented from the State housing authority (42.7%) was notably higher than the Indigenous rate in country South Australia (28.8%), and substantially higher than the Division's non-Indigenous population (15.3%).

The proportion of households (Indigenous and non-Indigenous combined) in the Division receiving rent assistance from Centrelink (9.0%) was slightly below that for country South Australia (10.5%).

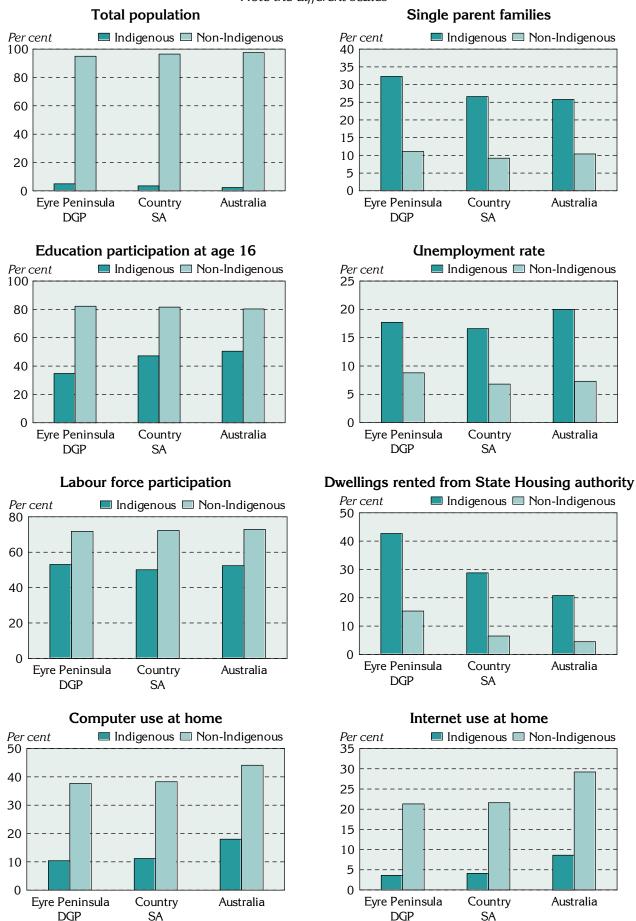
A slightly smaller proportion of the Indigenous population in Eyre Peninsula DGP reported using a computer at home (10.4%) compared to the Indigenous population in country South Australia (11.2%), and the rate was substantially below that of the Division's non-Indigenous population (37.7%). Similarly, the rate of home Internet use by the Indigenous population in the Division (3.6%) was below the rate for the Indigenous rate for country South Australia (4.1%), and one sixth that for the Division's non-Indigenous population (21.3%).

<sup>‡</sup> See note under 'Data converters and mapping' re calculation of Division totals

<sup>&</sup>lt;sup>1</sup>References to 'country South Australia' relate to South Australia excluding the Adelaide Statistical Division

Figure 3: Socio-demographic indicators by Indigenous status, Eyre Peninsula DGP‡, country South Australia and Australia, 2001

Note the different scales



Note: The 'Total population' figure is based on the experimental estimates of Aboriginal and Torres Strait Islander people; the remaining figures are based on ABS Census data

<sup>‡</sup> See note under 'Data converters and mapping' re calculation of Division totals

Table 3: Socio-demographic indicators, Eyre Peninsula DGP‡, country South Australia and Australia, 2001\*

	,					
Indicator	Eyre Pen DGF		Country	SA	Australia	
	No.	%	No.	%	No.	%
Population						
- Indigenous	2,829	5.0	13,602	3.5	458,261	2.4
- Non-Indigenous	53,503	95.0	379,638	96.5	18,952,407	97.6
Indigenous with poor proficiency in English <sup>1</sup>	75	3.0	850	6.9	12,208	3.0
Single parent families						
- Indigenous	183	32.3	777	26.6	26,487	25.7
- Non-Indigenous	1,540	11.1	9,574	9.2	503,382	10.4
Full-time secondary school education at age 16						
- Indigenous	23	34.8	135	47.2	5,997	50.5
- Non-Indigenous	587	82.2	4,231	81.6	327,055	80.3
Dwellings rented from State housing authority						
- Indigenous	275	42.7	924	28.8	23,974	20.8
- Non-Indigenous	3,004	15.3	9,127	6.4	284,502	4.5
People who used a computer at home						
- Indigenous	259	10.4	1,383	11.2	73,636	18.0
- Non-Indigenous	19,075	37.7	140,541	38.3	7,761,390	44.1
People who used the Internet at home						
- Índigenous	90	3.6	505	4.1	35,384	8.6
- Non-Indigenous	10,792	21.3	78,042	21.3	5,135,445	29.2
Households receiving rent assistance	1,877	9.0	15,170	10.5	1,006,599	15.0

<sup>&</sup>lt;sup>1</sup> Calculated on Indigenous persons who reported speaking an Aboriginal or Torres Strait Islander language and speaking English 'not well' or 'not at all'

The Indigenous unemployment rate of 17.7% in Eyre Peninsula DGP was marginally higher than that for the Indigenous population in country South Australia (16.6%), and twice that of the Division's non-Indigenous population (8.8%) (Figure 3 and Table 4). However, taking into account the Indigenous receiving payments as part of the Community Development Employment Projects (CDEP) scheme (effectively an Aboriginal work-for-the-dole scheme), the Division's 'real' Indigenous unemployment rate of 49.2% is substantially higher, and slightly higher than the 'real' Indigenous unemployment rate of 47.9% in country South Australia.

Table 4: Unemployment and labour force participation, Eyre Peninsula DGP‡, country South Australia and Australia, 2001

Labour force indicators	Eyre Peninsula DGP‡		Country SA		Australia	
	No.	%	No.	%	No.	%
Unemployment rate						
- Indigenous	132	17.7	609	16.6	24,930	20.0
- Non-Indigenous	2,079	8.8	11,576	6.8	624,337	7.3
Labour force participation (incl. CDEP as employed)						
- Indigenous	746	53.1	3,665	50.1	124,517	52.4
- Non-Indigenous	23,572	71.8	171,285	72.3	8,609,525	72.9
Female labour force participation (incl. CDEP						
as employed)						
- Indigenous	323	47.2	1,558	45.7	52,981	46.6
- Non-Indigenous	8,878	67.6	65,956	68.9	3,564,409	69.8
Indigenous unemployment rate (incl. CDEP)						
- excluding CDEP	132	17.7	609	16.6	24,930	20.0
- CDEP	235	31.5	1,148	31.3	17,662	14.2
- Total (including CDEP)	367	49.2	1,757	47.9	42,592	34.2

<sup>‡</sup> See note under 'Data converters and mapping' re calculation of Division totals

<sup>‡</sup> See note under 'Data converters and mapping' re calculation of Division totals

The labour force participation rate of 53.1% (in this case with those under the CDEP counted as employed) was marginally higher than the Indigenous rate for country South Australia (50.1%), and three quarters that of the Division's non-Indigenous population (71.8%) (

#### Table 4).

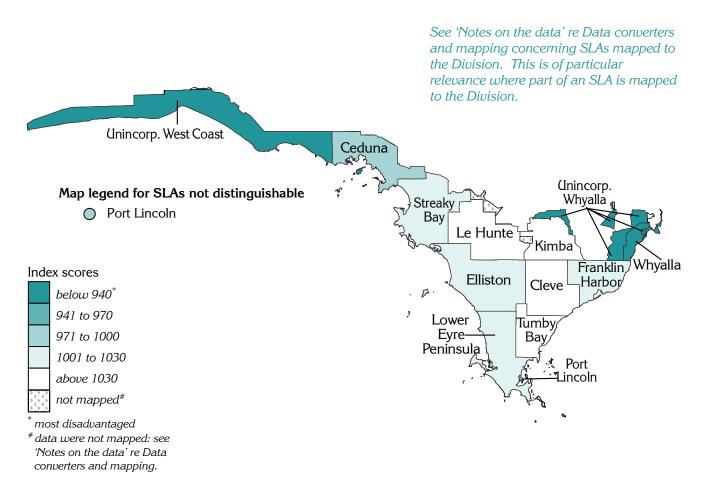
The Indigenous female labour force participation rate was also slightly higher than the rate for Indigenous females in country South Australia (45.7%), but two thirds that of the Division's non-Indigenous female population (67.6%).

#### Summary of the socioeconomic ranking of the Eyre Peninsula 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 part SLA in Eyre Peninsula DGP are shown in the supporting information, Table 13, page 20: SLAs are described on page 21.

The Eyre Peninsula DGP area's SEIFA Index of Relative Socio-Economic Disadvantage (IRSD) score is 958, 4.2% below the average score for Australia (1000) and below that for country South Australia (981); this highlights the relatively lower socioeconomic status profile of the Eyre Peninsula DGP population. There are, however, marked variations in the IRSD at the SLA level (Map 1), from an index score of 911 in Whyalla to scores of 1044 in Kimba and 1040 in Le Hunte.

Map 1 Index of Relative Socio-Economic Disadvantage by SLA, Eyre Peninsula DGP, 2001



## General medical practitioner (GP) supply

A total of 43.0 full-time equivalent (FTE) GPs and 51.4 full-workload equivalent (FWE<sup>2</sup>) GPs worked in the Division in2003/04 (Table 5). Of the FWE GPs, 15.3% were female, and 17.1% were over 55 years of age (compared to 23.4% and 30.5%, respectively, for South Australia).

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 2.8% below those on the calculated Usual Resident Population (usual residents of the Division counted in Australia on Census night). The rates of population per FWE GP were lower than the FTE rates.

Based on the Estimated Resident Population as at 30 June 2003 and 2004, the rates of population per GP varied little from those for South Australia, indicating a similar level of provision of GP services in the Division. The FTE and FWE GP rates were lower than the rates for Australia.

Table 5: Population per GP in Eyre Peninsula DGP, South Australia and Australia, 2002

Population measure	Population	G	GPs		on per GP
		FTE	FWE	FTE	FWE
Eyre Peninsula DGP					
Census count (adjusted)*	54,604	43.0	51.4	1,269	1,062
Usual Resident Population (adjusted)*	54,562			1,268	1,061
Estimated Resident Population (ERP)	56,196			1,306	1,092
Day-time population (estimated on URP)* ‡	53,056			1,233	1,031
South Australia (ERP)	1,530,276	1,181	1,354	1,296	1,130
Australia (ERP)	19,989,303	14,246	16,872	1,403	1,185

<sup>\*</sup> 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

#### **Immunisation**

8

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 majority (91.9%) of immunisations were provided by a general practitioner (compared with 70.0% for Australia), with 4.6% at community health centres or by a community health worker, and 2.8% at a local government council.

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

Provider	Eyre Peninsula DGP	Australia
	%	%
General practitioner	91.9	70.0
Local government council	2.8	16.6
Community health centre/ worker	4.6	9.8
Public hospital	0.6	2.1
Aboriginal health service/ worker	0.0	0.9
Other*	0.0	0.6
Total: Per cent	100.0	100.0
Number	11,166	3,843,610

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

Data Sources: see 'Data sources and limitations' at end of report

<sup>‡</sup> See note under 'Data converters and mapping' re calculation of Division totals

<sup>&</sup>lt;sup>2</sup> The FWE value is calculated for each GP location by dividing the GPs 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 (354.7 deaths per 100,000 population) is markedly higher than the rate for country South Australia (318.6) and especially so 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 country South Australia and Australia as a whole, are cancer and diseases of the circulatory system (Figure 4). With the exceptions of respiratory system diseases (including chronic lower respiratory disease) and motor vehicle accidents, death rates in the Division for the major conditions and causes shown were higher than those for country South Australia and for Australia as a whole: the death rate from motor vehicle accidents in the Division was higher than the rate for Australia. The data on which the following chart is based are in Table 15.

Figure 4: Deaths before 75 years of age, by major condition group and selected cause, Eyre Peninsula DGP‡, country South Australia and Australia, 2000-02\*

Indirectly age standardised rate per 100,000 population Eyre Peninsula DGP ☐ Country SA Australia **Variable** Eyre Peninsula DGP Rate per 100,000 Circulatory system diseases [**No.:** 155; **Rate:** 95.5] Ischaemic heart disease [No.: 90; Rate: 55.4] Cerebrovascular disease - stroke [**No.:** 33; **Rate:** 20.4] Cancer [No.: 224; Rate: 138.2] Cancer of the trachea, bronchus & lung [No.: 42; Rate: 25.8] Respiratory system diseases [No.: 27; Rate: 16.6] Chronic lower respiratory disease [**No.:** 19; **Rate:** 11.7] Injuries and poisonings [**No.:** 69; **Rate:** 45.8] Suicide [No.: 24; Rate: 16.1] Motor vehicle accidents [**No.:** 17; **Rate:** 11.6] Other causes [**No.:** 95; **Rate:** 59.1] Diabetes mellitus [No.: 20; Rate: 12.3] 0 20 40 60 80 100 120 140 160

<sup>\* &#</sup>x27;No.' is the total number of deaths for the 2000-02 period; 'Rate' is an annual rate, based on the 3 year average 
\$\delta\$ See note under 'Data converters and mapping' re calculation of Division totals

## Chronic diseases and risk factors: Whyalla (part of Eyre Peninsula DGP)

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 intrauterine 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 only shown for the SLA of Whyalla‡, which comprises approximately 40.0% of the Division's population. The estimates have not been made for the whole Division as only these SLAs were included in the 2001 National Health Survey. Note that the estimates have been predicted from self-reported data, and are not based on clinical records or physical measures. The process by which the estimates have been made, and details of their limitations, are described in the Notes section, pages 18-19. The data on which the following charts are based are in Table 16.

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 diseases (including asthma) and mental and behavioural disorders and osteoarthritis, relatively more people in Whyalla SLA reported having any of the selected chronic conditions than in Australia as a whole (Figure 5); that is, the prevalence rates per 1,000 population were higher. The generally higher rates are consistent with the socioeconomic status profile of the population of the Division.

## Prevalence estimates: self-reported health:

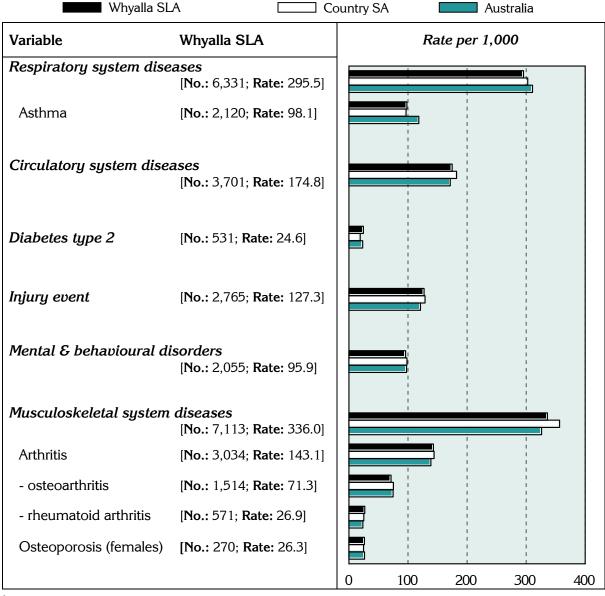
The NHS includes two measures of self-reported health. One is the Kessler Psychological Distress Scale–10 items (K–10). This is a scale of non-specific psychological distress based on 10 questions about negative emotional states in the four weeks prior to interview, asked of respondents 18 years and 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 Whyalla SLA aged 18 years and over is estimated to have substantially more people with very high psychological distress levels, as measured by the K–10, than in country South Australia or Australia (Figure 6). The proportion of the population aged 15 years and over estimated to have reported their health as 'fair' or 'poor' is also markedly above the national rate.

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

Figure 5: Estimates\* of chronic disease and injury, Whyalla SLA‡, country South Australia and Australia, 2001

Indirectly age standardised rate per 1,000 population



<sup>\* &#</sup>x27;No.' is a weighted estimate of the number of people in the SLA of Whyalla reporting each chronic condition and is derived from synthetic predictions from the 2001 NHS

Figure 6: Estimates\* of measures of self-reported health, Whyalla SLA, country South Australia and Australia, 2001

Indirectly age standardised rate per 1,000 population ■ Whyalla SLA Country SA Australia Variable Whyalla SLA Rate per 1,000 *Very high psychological distress levels [K-10<sup>1</sup>]* [No.: 733; Rate: 47.2] (18 + years)Fair or poor self-assessed health status (15 + years)[No.: 3,818; Rate: 228.7] 50 100 150 200 250

<sup>‡</sup> See note under 'Data converters and mapping' re calculation of SLA totals

<sup>\* &#</sup>x27;No.' is a weighted estimate of the number of people in the SLA of Whyalla reporting under these measures and is derived from synthetic predictions from the 2001 NHS.

<sup>&</sup>lt;sup>1</sup> Kessler 10

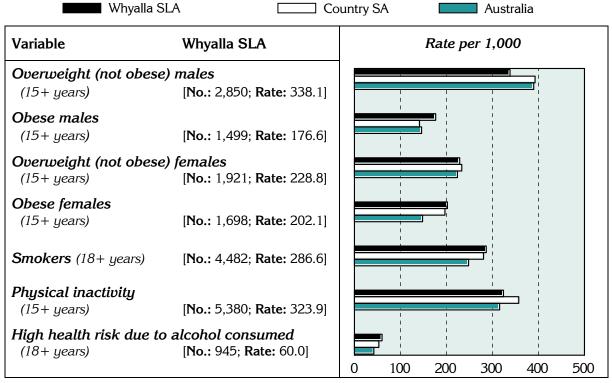
<sup>‡</sup> See note under 'Data converters and mapping' re calculation of SLA totals

#### Prevalence estimates: risk factors‡

With the exception of overweight in males, the rates for all other risk factors for Whyalla SLA‡ (Figure 7) are above the Australian rates. The generally higher rates are consistent with the socioeconomic status profile of the Division.

Figure 7: Estimates\* of selected risk factors, Whyalla SLA‡, country South Australia and Australia, 2001

Indirectly age standardised rate per 1,000 population



<sup>\* &#</sup>x27;No.' is a weighted estimate of the number of people in the SLA of Whyalla with these risk factors and has been predicted using data from the 2001 NHS and known data for the Division

<sup>‡</sup> See note under 'Data converters and mapping' re calculation of SLA totals

# Health and wellbeing of Aboriginal and Torres Strait Islanders in remote areas

### Background

Estimates of the prevalence of chronic diseases and risk factors are not available for the remote SLAs in this Division. However, given the relatively high proportion of Indigenous population, some data from the 2002 National Aboriginal and Torres Strait Islander Social Survey and the 2001 National Health Survey have been included in this profile. These data provide a description of aspects of the health and wellbeing of Aboriginal and Torres Strait Islander people living in remote areas; in some cases they also allow for a comparison of aspects of the health of Indigenous and non-Indigenous populations and, in others, for a comparison of people living in remote and non-remote areas. More detailed disaggregations than those shown here (eg. for the non-Indigenous population in remote areas) were not available from these surveys.

Remote areas in this context cover 86.4% of Australia's land mass; and, while they comprise just 3.0% of the total population, a large proportion (28.0%) of the Indigenous population lives in these areas. The Eyre Peninsula Division is classed as Remote under the ARIA+ remoteness classification (see *Notes on the data*, page 18); under this classification the majority of the Division is classed as Remote or Very Remote – the exceptions are Whyalla (classed as Moderately Accessible) and Unincorporated Whyalla (81.0% of which is classed as Moderately Accessible).

Although these data can provide a guide to average levels of health and wellbeing in the Division, they should not be read to say that Indigenous health and wellbeing in the Eyre Peninsula DGP is the same as is shown by these data. Clearly, the large area of Australia covered by this term 'remote' is very diverse in nature: it includes a range of population groups, living in a variety of situations, from urban to rural to isolated communities. Other data are available from a variety of sources (including State and Territory health agencies) and those of relevance to Divisions could be included in subsequent editions of the profiles.

## National Aboriginal and Torres Strait Islander Social Survey and Health Survey

The data in this section are from the ABS publications 2001 National Health Survey and National Aboriginal and Torres Strait Islander Social Survey, Australia, 2002 (or were provided by the ABS as special data extractions from data in this survey). The data are self-reported and are not based on clinical records or physical measures.

Just over half (54.2%) of the Indigenous population in the remote areas of Australia reported speaking an Indigenous language. Those in the lowest income group were almost two and a half times more likely (than those in the three highest income groups) to do so: for ease of reading, these income groups are referred to in the text below as 'low' and 'high'. The difference in this characteristic between people in remote and non-remote areas is over six times (6.3). Note that almost one quarter (23.6%) of Aboriginal and Torres Strait Islander people in the remote areas did not have an income defined in the NHS, so were not included in the comparisons by income group. For almost all of the characteristics in Table 7, the outcome for those where an income was not defined showed poorer health, or greater disadvantage, than those for whom income was available. For example, Indigenous people living in remote areas and for whom an income was not available were 37% more likely (than those reporting an income) to speak an Indigenous language (a rate ratio of 1.37).

The information in Table 7 has been restricted to show the rate (proportion) for the remote areas only, and the rate ratios between income groups and the remote and non-remote areas: the data from which the rate ratios have been calculated are available on the PHIDU web site.

Table 7: Summary characteristics of Aboriginal and Torres Strait Islander people, by remoteness and income group, Australia, 2002

Characteristic	Remote areas		Low income cf. with high income (RR*)		
	Per cent		Non-remote	remote (RR**)	
Family and culture				· ·	
Able to get support in time of crisis from outside household	86.9	0.99	0.93	0.95	
At least one stressor experienced in last 12 months	85.5	1.09	1.03	1.06	
Speaks an Indigenous language	54.2	2.45	1.69	6.30	
Health and disability					
Self-assessed health status					
Excellent/very good	44.2	0.94	0.66	1.00	
Fair/poor	20.0	1.25	2.34	0.82	
Disability or long term health condition	35.4	1.30	1.64	0.96	
Risk behaviour/characteristic					
Current daily smoker	50.4	1.16	1.66	1.05	
Risky/high risk alcohol consumption in last 12 months	16.8	0.81	0.97	1.16	
Educational attainment					
Has a post-school qualification	18.1	0.36	0.47	0.57	
Does not have a post-school qualification					
Completed Year 12	9.0	0.72	0.31	0.83	
Completed Year 10 or Year 11	27.8	0.97	1.34	1.01	
Completed Year 9 or below, or did not attend	45.1	2.06	3.01	1.51	
Total with no post-school qualification	81.9	1.35	1.44	1.20	
Employment					
Employed: CDEP	32.5	1.01	1.35	7.22	
Non-CDEP	19.2	0.11	0.12	0.48	
Total employed	51.7	0.39	0.17	1.17	
Unemployed	5.9	4.52	3.38	0.35	
Not in the labour force	42.5	3.91	4.99	1.09	
Financial stress					
Unable to raise \$2,000 in a week for something important	73.0	2.02	3.55	1.54	
Law and justice					
Victim of physical, threatened violence in last 12 months	22.7	0.89	1.82	0.91	
Transport access					
Can easily get to the places needed	65.6	0.74	0.71	0.91	
Cannot, or often has difficulty, getting to places needed	16.6	3.96	3.31	1.69	
Mobility	10.0	2.50	2.21	1.05	
Moved dwellings in last 12 months	27.2	0.80	1.26	0.84	
	۷۱.۷	0.00	1.20	0.04	
Information technology	211	0.45	0.62	0.54	
Used computer in last 12 months	34.4	0.45	0.63	0.54	
Accessed the Internet in last 12 months	21.6	0.37	0.50	0.45	

<sup>\*</sup> RR is ratio of the rate for the 20% of the Indigenous population with the lowest income to the rate for the 60% with the highest income

The relevance of the measure of self-reported health for Aboriginal and Torres Strait Islander people has been questioned. For example, while 20% of Aboriginal and Torres Strait Islander people in the remote areas reported their health to be fair or poor, this was 18% fewer than in the non-remote areas, a finding that would not appear to be supported by other data.

<sup>\*\*</sup> RR is ratio of the rate for the Indigenous population in the remote areas compared to that in the non-remote areas Source: ABS 2002 NATSIS, 2002 (unpublished data)

Despite this result, there is a variation within the remote areas, with the low income Aboriginal and Torres Strait Islander people 25% more likely than those with a high income to report their health as fair, or poor (a rate ratio of 1.25).

In the remote areas, disability and smoking (reported by 35.4% and 50.4%, respectively) show a relationship with disadvantage (higher rates in low, compared with high, income groups), but risky/high risk levels of alcohol consumption over the previous 12 months do not. However, reported rates of alcohol consumption at high-risk levels (reported by 16.8%) are 16% higher in remote than in non-remote areas.

Similarly, there is a clear association for Aboriginal and Torres Strait Islander people between high levels of educational attainment and income. For example, Aboriginal and Torres Strait Islander people in the low income group were more likely to report having no post-school qualifications (i.e. no qualification beyond secondary school) (35% higher for low income than high income groups); and those in remote areas 20% higher compared with those in non-remote areas.

Not surprisingly, the employment rate (including CDEP) is extremely strongly related to income levels, with 61% fewer in the low income group having employment (a rate ratio of 39%) in remote areas: conversely, four and a half times the number in the low income group are unemployed, compared with the high income group. Similarly, striking differentials apply in the non-remote areas.

The impact of disadvantage among Aboriginal and Torres Strait Islander people in remote areas is evident in a number of the remaining variables, with almost three quarters (73.0%) unable to raise \$2,000 in a week for something important, two-thirds (65.6%) reporting difficulty with transport and high proportions reporting lack of access to a computer and the Internet.

Reporting by Aboriginal and Torres Strait Islander people of selected long-term conditions (Table 8) is generally higher in remote than non-remote areas; the differentials for a number of conditions are even larger between the Indigenous and non-Indigenous populations. The impacts of diabetes and circulatory problems/ diseases on the Indigenous community are examples of these differences. The situation is similar for health-related actions, with the notable exception of doctor consultations, which are 11% lower in remote areas than non-remote areas for the Indigenous population; however, the Indigenous population across Australia as a whole reported more doctor consultations than did the non-Indigenous population.

Table 8: Summary health characteristics, by Indigenous status and remoteness, Australia, 2001

Age standardised rates (as per cent)

Health characteristic		Indigenous	Non-Indigenous	RR**	
	Remote	Non-remote	RR*	Total	
Selected long-term conditions					
Diabetes	16	9	1.78	3	3.67
Eye/sight problems	38	49	0.78	51	0.90
Ear/hearing problems	17	18	0.94	14	1.29
Circulatory problems/diseases	24	18	1.33#	17#	1.12#
Asthma	15	18	0.83	12	1.42
Back problems	21	22	$0.95^{\#}$	21#	1.05
No long-term condition	29	20	1.45#	22#	1.00
Health-related actions <sup>1</sup>					
Admitted to hospital	21	19	1.11	12	1.67
Visited casualty/outpatients	9	5	1.80	3	2.00
Doctor consultation (GP and/or specialist)	24	27	$0.89^{\#}$	24#	1.13
Dental consultation	7	5	1.40#	6#	0.83
Consultation with other health professional	27	16	1.69	13	1.38
Day(s) away from work/study	11	9	1.22#	10#	1.00

<sup>\*</sup> RR is ratio of % in remote to % in non-remote for the Indigenous population

Source: ABS 2001 NHS Cat. No. 4714.0, Table 1

<sup>\*\*</sup> RR is ratio of % Indigenous to % non-Indigenous

<sup>\*</sup> Difference between total Indigenous and non-Indigenous data is not statistically significant

<sup>&</sup>lt;sup>1</sup> Hospital admissions relate to the 12 months prior to interview. All other health-related actions relate to the two weeks prior to interview

Details of the immunisation status of adult Australians are not available from administrative sources (as are children's immunisations) so self-reported data again provide the only picture of the characteristics of the population groups who are immunised against various conditions (Table 9).

Aboriginal and Torres Strait Islander people living in remote areas were 67% more likely than those living in non-remote areas to have reported having a vaccination for influenza in last 12 months; and overall (the Indigenous population living in remote and non-remote areas) were 9% more likely to have had this vaccination than the non-Indigenous population. The ratio of the rates for those reporting having a vaccination for pneumonia in last 12 months were substantially stronger, being 2.53 (more than two and a half times higher for Indigenous population in remote areas) and 1.79 (79% higher for Indigenous compared with non-Indigenous).

Table 9: Immunisation status of people aged 50 years and over, by Indigenous status and remoteness, Australia, 2001

Per cent

Immunisation status		Indigeno	Non-Indigenous			
	Remote	Non-remote	Total	$RR^*$	Total	RR**
Influenza						
Had vaccination for influenza in last 12 months	75	45	51	1.67	47	1.09
Had vaccination for influenza but not in last 12 mths	na	11	10		11	1.10
Never had vaccination for influenza	16#	43	37	0.37	41	0.90
Pneumonia						
Had vaccination for pneumonia in last 5 years	48	19	25	2.53	14	1.79
Had vaccination for pneumonia but not in last 5 years	na	4#	3#		1	
Never had vaccination for pneumonia	38	75	67	0.51	84	0.80

<sup>\*</sup> RR is ratio of % in remote to % in non-remote for the Indigenous population

The limited range of health information available for Aboriginal and Torres Strait Islander women living in remote areas shows that they are more likely (than Indigenous women in non-remote areas) to have breastfed their child (77% and 59%, respectively) (and also more likely than the non-Indigenous population (53%)). Lower proportions also reported not having children (Table 10).

Indigenous women are more likely to have had a Pap smear test. However, Indigenous women who reported having a Pap smear test were more likely to be living in remote than in non-remote areas (17% higher).

Table 10: Summary women's health characteristics, by Indigenous status and remoteness, Australia, 2001

Age standardised rates (as per cent)

Women's health characteristics		Indigeno	Non-Ind	igenous		
	Remote	Non-remote	Total	RR*	Total	RR**
Mammograms (aged 40 years and over)						
Has regular mammograms	36 <sup>#</sup>	45	43	0.80	46	0.93
Never had a mammogram	41	20	25	2.05	25	1.00
Pap Smear test						
Has regular Pap smear test	56	48	50	1.17	55	0.91
Never had a Pap smear test	19	8	11	2.38	12	0.92
Breastfeeding history						
Children breastfed	77	59	63	1.31	53	1.19
Children not breastfed	4#	12	11	0.33	9	1.22
Has not had children	13	15	14	0.87	29	0.48

 $<sup>^{*}</sup>$  RR is ratio of % in remote to % in non-remote for the Indigenous population

<sup>\*\*</sup> RR is ratio of % Indigenous to % non-Indigenous

<sup>#</sup> estimate has a relative standard error of between 25% to 50% and should be used with caution Source: ABS 2001 NHS Cat. No. 4714.0, Table 19

<sup>\*\*</sup> RR is ratio of % Indigenous to % non-Indigenous

<sup>#</sup> Estimate has a relative standard error of between 25% to 50% and should be used with caution Source: ABS 2001 NHS Cat. No. 4714.0, Table 22

## Notes on the data

#### Data sources and limitations

#### General

References to 'country South Australia' relate to South Australia, excluding Adelaide Statistical Division.

#### **Data sources**

Table 11 details the data sources for the material presented in this profile.

Table 11: 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; Tables 1 and 2	Experimental estimates of Aboriginal and Torres Strait Islander people, ABS 2001 (unpublished)				
Figure 3, Tables 3 and 4	Data were extracted by postal area from the ABS Population Census 2001, except for the following indicators:  - Total population – Experimental estimates, ABS 2001 (unpublished)  - Full-time secondary education participation at age 16 – Census 2001 (unpublished)  - Households receiving rent assistance – Centrelink, December Quarter 2001 (unpublished)				
Map 1; Table 13	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 <sup>1</sup> , ABS Population Census 2001, scaled to 2003/04 - Usual Resident Population <sup>2</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				
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 4; Table 15	ABS Deaths, 2000 to 2002				
Chronic diseases and associ	ated risk factors				
Figures 5, 6 and 7; Table 16	Estimated from 2001 National Health Survey (NHS), ABS (unpublished)				
National Aboriginal and Torr	res Strait Islander Social Survey and Health Survey				
Table 7	ABS 2002 NATSIS, 2002 (unpublished)				
Tables 8, 9 and 10	ABS 2001 NHS Cat. No. 4714.0 – Tables 1, 19 and 22				

<sup>&</sup>lt;sup>1</sup> Census count - those counted in the Division on Census night, including tourists, business people and other visitors

<sup>&</sup>lt;sup>2</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

#### Remote areas

The Department of Health and Ageing have developed a classification of remoteness (ARIA+), subsequently amended by the ABS, which includes five area classes - Highly Accessible, Accessible, Moderately Accessible, Remote and Very Remote (a sixth category, Migratory, applies to Census data). Areas in the Remote and Very Remote classes were excluded from the 2001 National Health Survey.

#### Chronic diseases and associated risk factors

The data for chronic conditions and risk factors 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 12 includes notes relevant to this data.

Table 12: Notes on estimates of chronic diseases and associated risk factors

Indicator	Notes on the data
Estimates of chronic diseas	e and injury (Figure 5)
Long term conditions	<ul> <li>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</li> </ul>
Injury event	- Injuries which occurred in the four weeks prior to interview
Estimates of measures of s	elf-reported health (Figure 6)
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 fa	actors (Figure 7)
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	<ul> <li>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</li> </ul>
High health risk due to alcohol consumed	<ul> <li>Respondents 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</li> </ul>

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 21).

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 14.

#### <u>Mapping</u>

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<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 13) 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 <a href="www.abs.gov.au">www.abs.gov.au</a>. The scores for these indexes for each Statistical Local Area (SLA) or part SLA in Eyre Peninsula DGP are shown in Table 13.

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 13: SEIFA scores by SLA, Eyre Peninsula DGP, 2001

SLA	SLA name	Index score				
code	(& per cent of SLA in the D	ivision)	Disadvantage	Advantage	Economic	Education &
					Resources	Occupation
41010	Ceduna	(100.0)	979	945	937	946
41190	Cleve	(100.0)	1035	941	915	941
41750	Elliston	(100.0)	1009	922	884	943
41960	Franklin Harbor	(100.0)	1023	904	879	926
43220	Kimba	(100.0)	1044	948	918	960
43570	Le Hunte	(100.0)	1040	942	895	955
43710	Lower Eyre Peninsula	(100.0)	1029	952	932	951
46300	Port Lincoln	(100.0)	957	933	945	929
47490	Streaky Bay	(100.0)	1005	922	886	940
47910	Tumby Bay	(100.0)	1033	929	885	948
48540	Whyalla	(100.0)	911	916	925	912
49249	Unincorporated West Coast	(99.7)	877	908	901	918
49389	Unincorporated Whyalla	(79.8)	805	789	776	807

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

#### Statistical geography of the Eyre Peninsula DGP

The Eyre Peninsula DGP covers 79,289 square kilometres, based on 2001 SLA codes.

The postcodes in the Division (all 100%) are: 5600-5609, 5630-5633, 5640-5642, 5650-5655, 5660, 5661, 5670, 5671, 5680, and 5690<sup>3</sup>.

Statistical Local Areas (SLAs) are defined by the Australian Bureau of Statistics to produce areas for the presentation and analysis of data. In country South Australia, SLAs are generally the same as local government areas (LGAs). Unincorporated areas of the State are also SLAs. The Division comprises all of the SLAs from within the ABS Eyre Statistical Division and the SLAs of Whyalla and Unincorporated Whyalla from the Northern Statistical Division (Whyalla Statistical Subdivision).

Table 14: SLAs in Eyre Peninsula DGP by 2001 boundaries

SLA code	SLA name	Per cent of the SLA's population in the	Estimate of the SLA's 2004 population in
		Division*	the Division
41010	Ceduna	100.0	3,589
41190	Cleve	100.0	1,907
41750	Elliston	100.0	1,142
41960	Franklin Harbor	100.0	1,313
43220	Kimba	100.0	1,181
43570	Le Hunte	100.0	1,415
43710	Lower Eyre Peninsula	100.0	4,291
46300	Port Lincoln	100.0	14,385
47490	Streaky Bay	100.0	2,016
47910	Tumby Bay	100.0	2,654
48540	Whyalla	100.0	21,526
49179	Unincorporated Lincoln	31.3	#
49249	Unincorporated West Coast	99.7	614
49389	Unincorporated Whyalla	79.8	180

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

<sup>#</sup> Not shown as the total population is less than 100

<sup>&</sup>lt;sup>3</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

#### Supporting data

The data used in Figure 4 to illustrate the rates of premature mortality in the Division are shown below in Table 15.

Table 15: Deaths before 75 years of age by major condition group and selected cause Eyre Peninsula DGP‡, country South Australia and Australia, 2000-02\*

Indirectly age standardised rate per 100,000 population

Variable	Eyre Peninsula DGP		Count	Country SA		Australia	
	No.	Rate	No.	Rate	No.	Rate	
Circulatory system diseases	155	95.5	1,018	82.8	38,357	72.3	
Ischaemic heart disease	90	55.4	631	51.2	23,364	44.1	
Cerebrovascular disease – stroke	33	20.4	168	13.6	6,920	13.0	
Cancer	224	138.2	1,453	118.6	60,603	114.3	
Cancer of the trachea, bronchus & lung	42	25.8	296	23.9	12,715	24.0	
Respiratory system diseases	27	16.6	223	18.1	9,726	18.3	
Chronic lower respiratory disease	19	11.7	151	12.2	6,657	12.6	
Injuries and poisonings	69	45.8	488	45.8	18,573	35.0	
Suicide	24	16.1	145	13.6	6,706	12.6	
Motor vehicle accidents	17	11.6	183	17.6	5,014	9.5	
Other causes	95	59.1	637	54.2	26,735	50.4	
Diabetes mellitus	20	12.3	126	10.2	3,734	7.0	

<sup>\* &#</sup>x27;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 rates used to illustrate the prevalence estimates of chronic disease (Figure 5), measures of self-reported health (Figure 6), and selected risk factors (Figure 7) are shown in Table 16 below.

Table 16: Estimates of chronic disease and associated risk factors, Whyalla SLA‡, country South Australia and Australia, 2001

*Indirectly age standardised rate per 1,000 population* 

Variable	Whyalla SLA	Country SA	Australia
Chronic disease and injury (Figure 5)			
Respiratory system diseases	295.5	302.7	310.8
Asthma	98.1	96.8	118.3
Circulatory system diseases	174.8	182.2	171.5
Diabetes type 2	24.6	19.2	23.4
Injury event	127.3	128.9	121.2
Mental & behavioural disorders	95.9	98.3	97.6
Musculoskeletal system diseases	336.0	356.6	326.2
Arthritis	143.1	144.2	138.8
- Osteoarthritis	71.3	75.3	74.9
- Rheumatoid arthritis	26.9	25.3	23.6
Osteoporosis (females)	26.3	24.8	26.4
Measures of self-reported health (Figure 6)			
Very high psychological distress levels (18+ years)	47.2	38.8	36.6
Fair or poor self-assessed health status (15+ years)	228.7	204.1	184.0
Risk factors (Figure 7)			
Overweight (not obese) males (15+ years)	338.1	392.6	389.7
Obese males (15+ years)	176.6	141.4	145.9
Overweight (not obese) females (15+ years)	228.8	233.4	223.9
Obese females (15+ years)	202.1	196.8	148.0
Smokers (18+ years)	286.6	280.6	248.0
Physical inactivity (15+ years)	323.9	357.1	315.5
High health risk due to alcohol consumed (18+ years)	60.0	53.0	42.1

<sup>‡</sup> See note under 'Data converters and mapping' re calculation of SLA 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.

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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

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