

Population health profile of the Southern Tasmanian 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 *Southern Tasmanian Division of General Practice*

Introduction

This profile has been designed to provide a description of the population of the Southern Tasmanian 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 19.

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. Tasmania and Australia). Specific topics covered include:

- a socio-demographic profile (pages 2-6);
- GP workforce data (page 9);
- immunisation rates (page 9);
- rates of premature death (page 10); and
- estimates of the prevalence of chronic disease and selected risk factors (pages 11-15).

Key indicators

Location:	Tasmania	
Division number:	701	
Population‡:	No.	%
Total	236,511	
65+	33,054	14.0%
<25	79,501	33.6%
Indigenous	8,236	3.6%
Disadvantage score¹:	985	
GP services per head of population:		
Division‡	4.6	
Australia	4.7	
Population per FTE GP:		
Division‡	1,280	
Australia	1,403	
Premature death rate²:		
Division‡	332.5	
Australia	290.4	

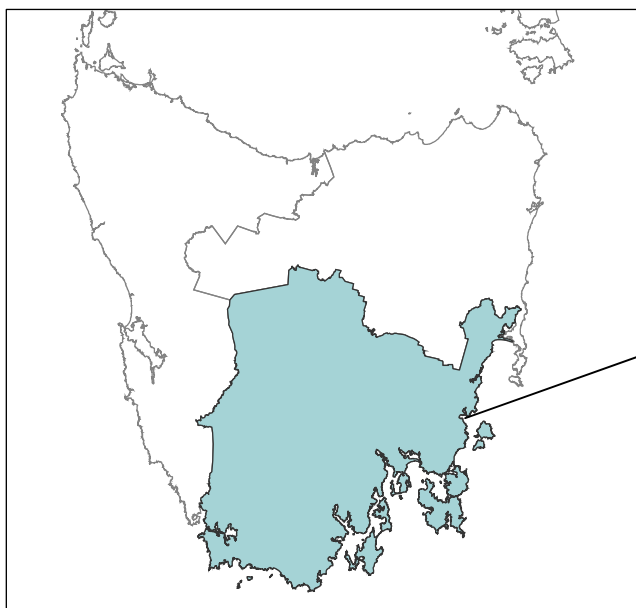
¹ Numbers below 1000 (the index score for Australia) indicate the Division is relatively disadvantaged

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

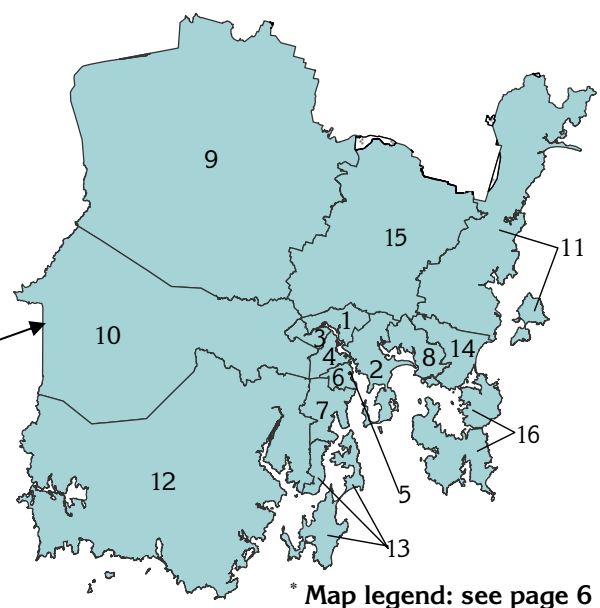
‡ See note "Data converters and mapping" re calculation of Division Total

Southern Tasmanian Division of General Practice

Tasmanian Divisions of General Practice



Southern Tasmanian DGP by SLA



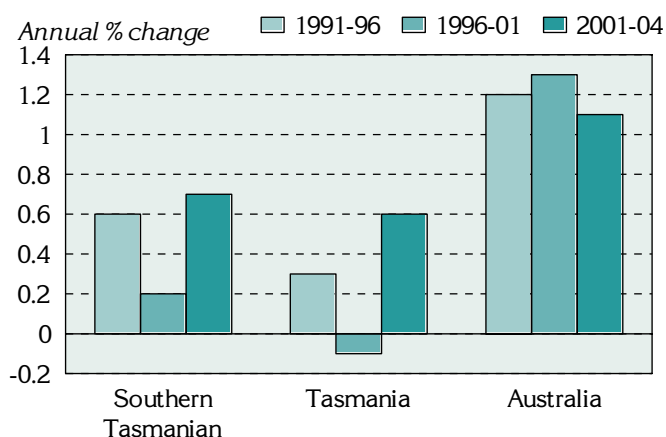
* Map legend: see page 6

Socio-demographic profile

Population

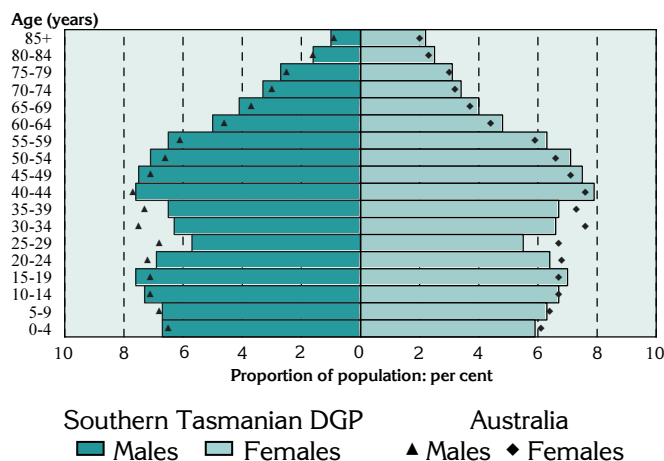
The Southern Tasmanian Division had an Estimated Resident Population of 236,511 at 30 June 2004.

Figure 1: Annual population change, Southern Tasmanian DGP‡, Tasmania 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 0.6% on average each year, higher than in Tasmania (0.3%), but half the increase for Australia as a whole (1.2%). From 1996 to 2001, the annual percentage increase in the Division was 0.2%, compared to a decline in Tasmania (0.1%) and an increase for Australia (1.3%). The Division's population increased by 0.7% on average from 2001 to 2004, again greater than the increase for Tasmania (0.6%), but less than that for Australia as a whole (1.1%).

Figure 2: Population in Southern Tasmanian DGP‡ and Australia, by age and sex, 2004



The most notable differences in the age distribution of the Division's population (when compared with Australia overall) are:

- at younger ages – a lower proportion of children aged 5 to 9 years and a higher proportion of 10 to 19 year olds;
- from 20 to 39 years – notably lower proportions of males and females; and,
- from 40 years of age and above – higher proportions of males (from age 45 to 79 years) and females.

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

Age group (years)	Southern Tasmanian DGP		Australia	
	No.	%	No.	%
0-14	46,757	19.8	3,978,751	19.8
15-24	32,744	13.8	2,762,769	13.8
25-44	62,673	26.5	5,881,048	29.3
45-64	61,284	25.9	4,864,037	24.2
65-74	17,470	7.4	1,374,792	6.8
75-84	11,815	5.0	934,505	4.7
85+	3,769	1.6	295,602	1.5
Total	236,511	100.0	20,091,504	100.0

As shown in the age-sex pyramid above, the proportion of the Division's population aged 25 to 44 years (26.5%) was lower than that for Australia as a whole (with 29.3%) (Table 1). Conversely, there were relatively more people in the Division aged 45 years and over compared to Australia.

The Southern Tasmanian DGP comprised 3.8% of people born in predominantly non-English speaking countries and resident in Australia for five years or more (Table 2), higher than in Tasmania (3.2%). Recent arrivals (those resident in Australia for less than five years) from non-English speaking countries were also more predominant, comprising 0.7% of the Division's population (compared to 0.5% in Tasmania).

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

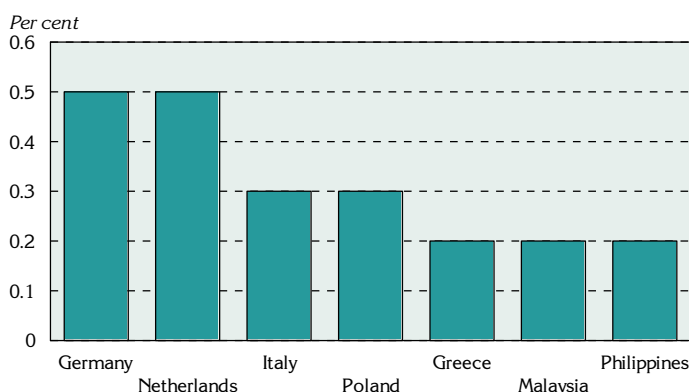
Of these residents, 0.5% had poor proficiency in English (determined when people aged five years and over born overseas in predominantly non-English speaking countries reported in the Census speaking another language and speaking English 'not well' or 'not at all'), compared to a lower proportion in Tasmania (0.3%) and a much higher proportion in Australia (2.4%).

Table 2: Non-English speaking born, Southern Tasmanian DGP, Tasmania and Australia, 2001

People born in predominantly non-English speaking countries	Southern Tasmanian DGP		Tasmania		Australia	
	No.	%	No.	%	No.	%
Resident in Australia for five years or more	8,629	3.8	14,915	3.2	2,019,410	10.8
Resident in Australia for less than five years	1,516	0.7	2,514	0.5	408,074	2.2
Poor proficiency in English ¹	947	0.5	1,317	0.3	425,399	2.4

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

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



Australian-born people comprised 88.7% of the Division's population, well above the figure for Australia of 72.6%. Of the 6.6% of people from English speaking countries, 5.2% were from the UK and Eire. The major birthplaces of the non-English speaking population include Germany and The Netherlands (both 0.5%); Italy and Poland (both 0.3%); Greece, Malaysia and the Philippines (all 0.2%).

Socioeconomic status: Total population

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 Southern Tasmanian DGP had a marginally higher proportion of single parent families (12.8%) compared to Tasmania as a whole (12.2%), and higher than for Australia (10.7%).

The proportion of Aboriginal and Torres Strait Islanders in the Division (3.6%) was similar to that for Tasmania (3.7%) and higher than for Australia (2.4%) (Figure 4, Table 3).

Full-time secondary school education participation of 16 year olds living in the Division (57.6%) was higher than for Tasmania as a whole (55.1%), but notably lower than the rate for Australia (78.7%).

The proportion of the Division's households receiving rent assistance from Centrelink (13.6%) was equal to that for Tasmania, and the rate of dwellings rented from the State housing authority (6.6%) was similar to that for Tasmania (6.4%). The proportion of dwellings with no access to a motor vehicle (10.4%) was just above that for Tasmania (9.9%).

The Division had slightly higher proportions of the population who reported using, at home, a computer (39.3%) and the Internet (24.0%), compared to Tasmania (37.6% and 22.2%).

These socioeconomic indicators show the Division to comprise a population of relatively lower socioeconomic status, when compared with Australia: see also the note on page 5 (Summary of socioeconomic ranking).

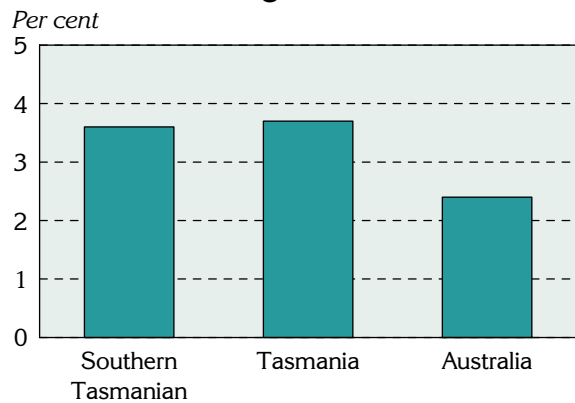
Figure 4: Socio-demographic indicators, Southern Tasmanian DGP, Tasmania and Australia, 2001

Note the different scales

Single parent families



Indigenous‡



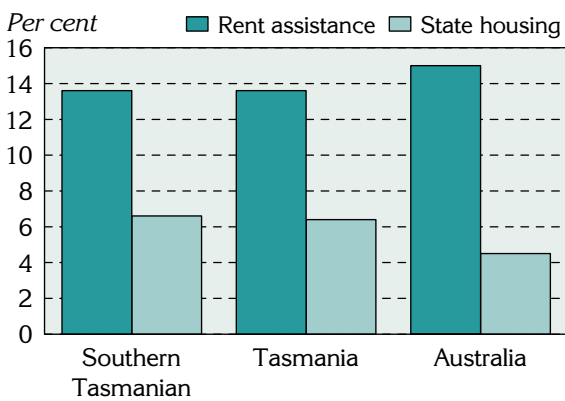
Education participation at age 16‡



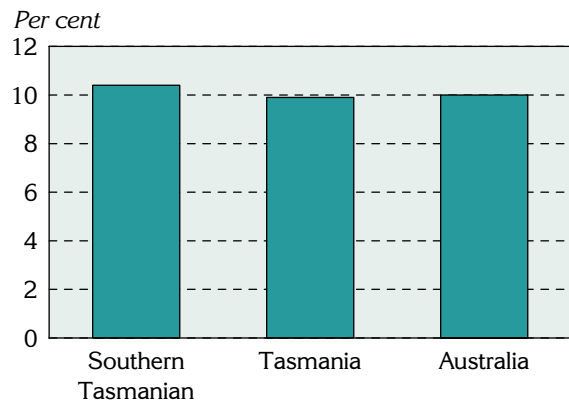
Unemployment rate (June 2003)‡



Households receiving rent assistance & Dwellings rented from State housing authority



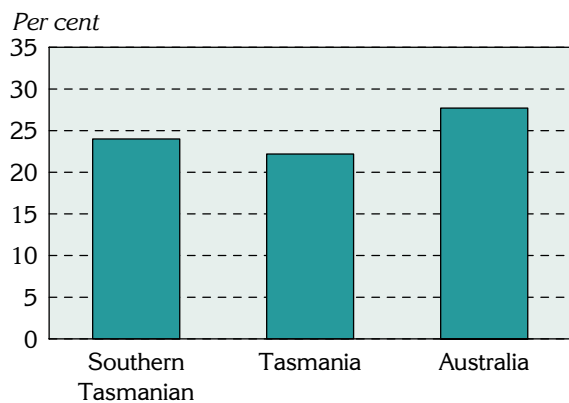
Dwellings with no motor vehicle



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, Southern Tasmanian DGP, Tasmania and Australia, 2001

Indicator	Southern Tasmanian DGP		Tasmania		Australia	
	No.	%	No.	%	No.	%
Single parent families	7,690	12.8	15,140	12.2	529,969	10.7
Indigenous‡	8,232	3.6	17,384	3.7	458,261	2.4
Full-time secondary education participation at age 16‡	1,995	57.6	3,869	55.1	130,198	78.7
Households: rent assistance	11,663	13.6	23,944	13.6	1,006,599	15.0
Dwellings rented from the State housing authority	5,814	6.6	11,611	6.4	317,171	4.5
Dwellings: no motor vehicle	9,242	10.4	17,911	9.9	708,073	10.0
Computer use at home	87,442	39.3	170,842	37.6	7,881,983	42.0
Internet use at home	53,919	24.0	102,109	22.2	2,019,410	27.7

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

The unemployment rate of 8.1% in Southern Tasmanian DGP was slightly lower than that for Tasmania (8.8%), but notably higher than for Australia (6.2%) (Figure 4, Table 4). The labour force participation rate (70.4%) was similar to that for Tasmania (70.7%), and lower than for Australia (75.2%), while the female labour force participation rate (69.1%) was slightly higher than the rate for Tasmania (66.9%), and consistent with the rate for Australia (69.7%).

Table 4: Unemployment and labour force participation, Southern Tasmanian DGP, Tasmania and Australia

Labour force indicators	Southern Tasmanian DGP		Tasmania		Australia	
	No.	%	No.	%	No.	%
Unemployment rate (2003) ‡	8,762	8.1	19,353	8.8	623,791	6.2
Labour force participation (2003) ‡	108,812	70.4	220,803	70.7	10,038,147	75.2
Female labour force participation (2001)	38,321	69.1	74,841	66.9	3,306,521	69.7

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

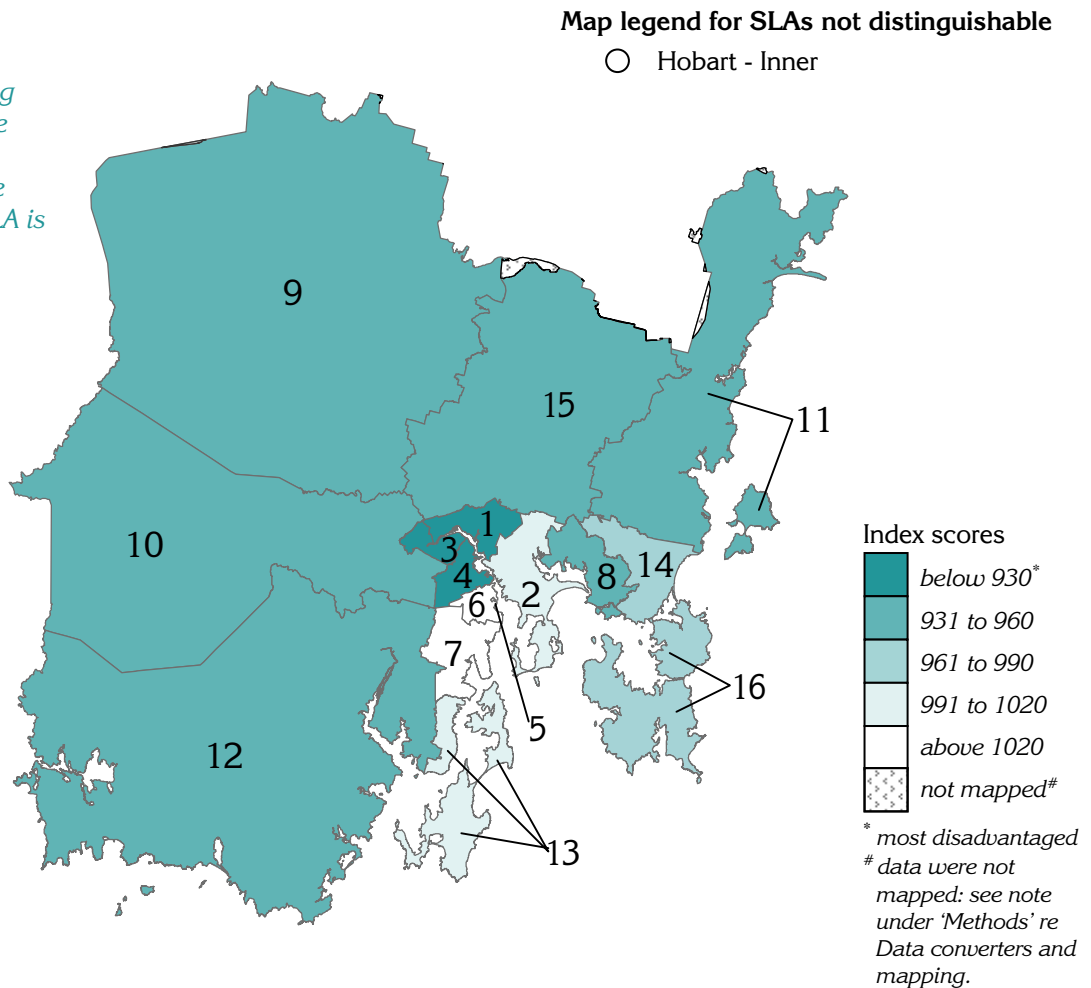
Summary of the socioeconomic ranking of the Southern Tasmanian DGP

Following the 2001 Census, the Australian Bureau of Statistics (ABS) produced four socio-economic 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 Southern Tasmanian DGP are shown in the supporting information, Table 12, page 20: SLAs are described on page 21.

The Southern Tasmanian DGP area's SEIFA Index of Relative Socio-Economic Disadvantage (IRSD) score is 985, marginally (1.5%) below the average score for Australia (1000), but above that for Tasmania as a whole (954); this highlights the relatively lower socio-economic status profile of the Division's population. Variations in the IRSD within the Division are shown in Map 1 at the SLA level.

Map 1: Index of Relative Socio-Economic Disadvantage by SLA, Southern Tasmanian 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.



Alphabetical key to Statistical Local Areas, Southern Tasmanian DGP, 2001			
Brighton	1	Hobart - Remainder	6
Central Highlands	9	Huon Valley	12
Clarence	2	Kingborough - Part A	7
Derwent Valley - Part A	3	Kingborough - Part B	13
Derwent Valley - Part B	10	Sorell - Part A	8
Glamorgan/Spring Bay	11	Sorell - Part B	14
Glenorchy	4	Southern Midlands	15
Hobart - Inner	5	Tasman	16

Socioeconomic status: Indigenous population

At the 2001 Census, 3.6% of the population of the Southern Tasmanian DGP were estimated to be of Aboriginal or Torres Strait Islander origin, consistent with the proportion for Tasmania (3.7%).

The largest Indigenous populations were in Glenorchy (an estimated 1,691 people, 20.5% of the Indigenous population in the Division), Huon Valley (1,452 people, 17.6%) and Clarence (1,389 people, 16.9%).

Table 5: Population by Indigenous status*, SLAs in Southern Tasmanian DGP‡, 2001

Statistical Local Area	Indigenous		Non-Indigenous		Total	
	No.	%	No.	%	No.	%
Glenorchy	1,691	20.5	42,312	19.0	44,003	19.1
Huon Valley	1,452	17.6	12,394	5.6	13,846	6.0
Clarence	1,389	16.9	48,205	21.7	49,594	21.5
Brighton	900	10.9	12,015	5.4	12,915	5.6
Kingborough - Part A	730	8.9	26,074	11.7	26,804	11.6
Hobart - Remainder	648	7.9	46,359	20.8	47,007	20.4
Sorell - Part A	304	3.7	9,732	4.4	10,036	4.3
Southern Midlands	225	2.7	5,505	2.5	5,730	2.5
Derwent Valley - Part A	220	2.7	6,264	2.8	6,484	2.8
Derwent Valley - Part B	150	1.8	2,739	1.2	2,889	1.3
Tasman	143	1.7	2,116	1.0	2,259	1.0
Other	380	4.6	8,821	4.0	9,201	4.0
Total	8,232	100.0	222,536	100.0	230,768	100.0

* Experimental estimates of Aboriginal and Torres Strait Islander people, ABS 2001

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

Indigenous single parent families comprised 18.3% of all families in the Division with children, similar to that for Tasmania's Indigenous population as a whole (17.0%), but notably higher than for the Division's non-Indigenous population (12.5%) (Table 6).

The participation rate in full-time secondary school education of Indigenous 16 year olds (41.6%) was consistent with that for Indigenous 16 year olds in Tasmania (41.4%), but just two thirds that of the Division's non-Indigenous population (60.0%).

A similar proportion of the Division's Indigenous population lived in dwellings rented from the State housing authority (16.9%) compared to Indigenous rate for Tasmania (15.7%), but the rate was notably higher than for the non-indigenous population in the Division (6.4%).

A similar proportion of the Indigenous population in Southern Tasmanian DGP reported using a computer at home (30.0%) compared to the Indigenous population in Tasmania (31.2%), but the rate was substantially lower than for the Division's non-Indigenous population (40.8%).

The proportion of the Indigenous population who reported using the Internet at home (14.6%) was consistent with the Indigenous rate for Tasmania (15.0%), but markedly lower than for the Division's non-Indigenous population (25.3%).

Table 6: Socio-demographic indicators, Southern Tasmanian DGP‡, Tasmania and Australia, 2001*

Indicator	Southern Tasmanian DGP‡		Tasmania		Australia	
	No.	%	No.	%	No.	%
Population						
- Indigenous	8,232	3.6	17,384	3.7	458,261	2.4
- Non-Indigenous	222,536	96.4	454,411	96.3	18,952,407	97.6
Single parent families						
- Indigenous	427	18.3	849	17.0	26,587	25.8
- Non-Indigenous	7,259	12.5	14,291	12.0	503,382	10.4
Full-time secondary school education at age 16						
- Indigenous	80	41.6	159	41.4	5,997	50.5
- Non-Indigenous	1,919	60.0	3,675	57.1	327,055	80.3
Dwellings rented from State housing authority						
- Indigenous	458	16.9	921	15.7	23,974	20.8
- Non-Indigenous	5,179	6.4	10,335	6.3	284,502	4.5
People who used a computer at home						
- Indigenous	2,254	30.0	4,923	31.2	73,636	18.0
- Non-Indigenous	84,670	40.8	164,815	39.0	7,761,390	44.1
People who used the Internet at home						
- Indigenous	1,095	14.6	2,363	15.0	35,384	8.6
- Non-Indigenous	52,593	25.3	99,053	23.4	5,135,445	29.2

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

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

The Southern Tasmanian DGP Indigenous population's unemployment rate of 18.7% was consistent with that for Tasmania's Indigenous population as a whole (19.8%), but double that of the Division's non-Indigenous population (9.3%), (Table 7).

The Indigenous labour force participation rate (58.6%) was consistent with that for the Indigenous population in Tasmania (60.0%), but notably lower than for the Division's non-Indigenous population (69.8%). The Indigenous female labour force participation rate (53.4%) was also similar to that for Indigenous females in Tasmania (53.6%), but was notably lower than the rate for non-Indigenous females in the Division (68.1%).

Table 7: Unemployment and labour force participation, Southern Tasmanian DGP‡, Tasmania and Australia, 2001

Labour force indicators	Southern Tasmanian DGP‡		Tasmania		Australia	
	No.	%	No.	%	No.	%
Unemployment rate						
- Indigenous	475	18.7	1,082	19.8	24,930	20.0
- Non-Indigenous	8,969	9.3	19,156	9.9	624,337	7.3
Labour force participation						
- Indigenous	2,543	58.6	5,465	60.0	124,517	52.4
- Non-Indigenous	96,288	69.8	192,733	69.1	8,609,525	72.9
Female labour force participation						
- Indigenous	1,101	53.4	2,358	53.6	52,981	46.6
- Non-Indigenous	40,789	68.1	79,496	66.3	3,564,409	69.8

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

General medical practitioner (GP) supply

A total of 183.7 full-time equivalent (FTE) GPs and 190.2 full-workload equivalent (FWE¹) GPs worked in the Division in 2003/04 (Table 8). Of the FWE GPs, 33.9% were female, and 24.6% were over 55 years of age (compared to 30.3% and 25.4%, respectively, for Tasmania).

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 3.0% 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 rate of population per FTE GP in Southern Tasmanian DGP was lower than for Tasmania and Australia, indicating a higher level of provision of GP services in the Division. The FWE rate was lower than the rate for Tasmania, and higher than for Australia.

Table 8: Population per GP in Southern Tasmanian DGP, Tasmania and Australia, 2003/04

Population measure	Population	GPs		Population per GP	
		FTE	FWE	FTE	FWE
Southern Tasmanian DGP					
Census count (adjusted)*	226,146	183.7	190.2	1,231	1,189
Usual Resident Population (URP) (adjusted)*	228,246	..	..	1,243	1,200
Estimated Resident Population (ERP)	235,149	..	..	1,280	1,236
Day-time population (estimated on URP)* ‡	221,377	..	..	1,205	1,164
Tasmania (ERP)	479,717	350	374	1,371	1,283
Australia (ERP)	19,989,303	14,246	16,872	1,403	1,185

* The Census count, Usual Resident Population and Day-time population were adjusted to reflect population change between 2001 and 2003/04, as measured by the ERP

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

Immunisation

Data from the Australian Childhood Immunisation Register show that 94.7% 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 9. The proportion of children in the Division who were immunised by a general practitioner was 82.6%, compared to 70.0% for Australia, with 15.1% immunised at a local government council and 1.8% at a community health centre, or by a community health worker.

Table 9: Childhood immunisation at ages 0 to 6 by provider type, Southern Tasmanian DGP and Australia, 2003/04

Provider	Southern Tasmania	Australia
	DGP	
	%	%
General practitioner	82.6	70.0
Local government council	15.1	16.6
Community health centre/ worker	1.8	9.8
Public hospital	0.5	2.1
Aboriginal health service/ worker	0.0	0.9
Other*	0.0	0.6
Total: Per cent	100.0	100.0
Number	42,484	3,843,610

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

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

Premature mortality

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

The 'all causes' death rate in the Division at ages 0 to 74 years (332.5 deaths per 100,000 population) is slightly lower than for Tasmania (342.2) but above 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.

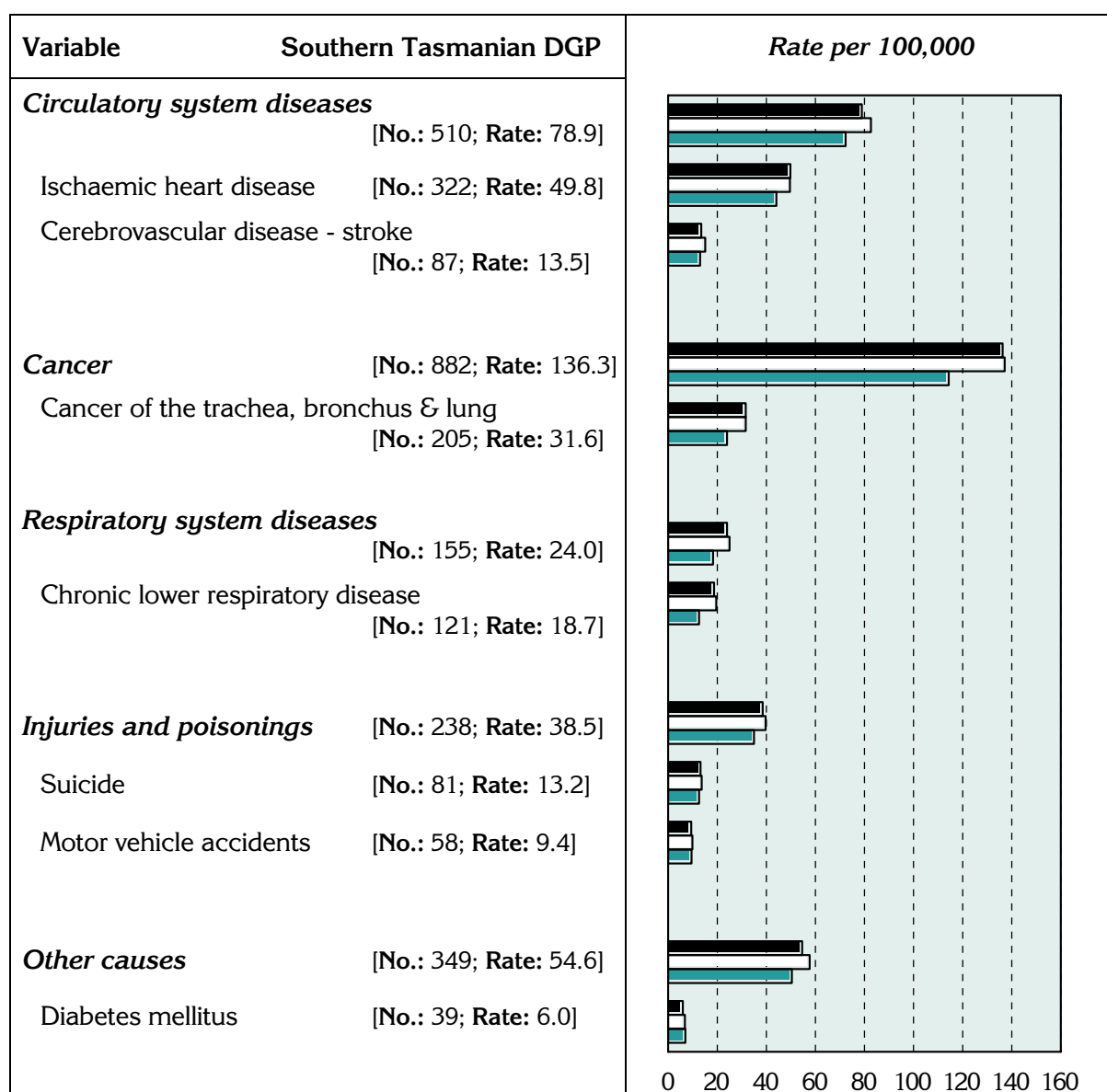
The major causes of premature mortality in the Division, as for Tasmania and Australia as a whole, are cancer and diseases of the circulatory system (Figure 5). For all of the major condition groups and selected causes, death rates in the Division were higher than for Australia, but lower than, or similar to, those for Tasmania.

The data on which the following chart is based are in Table 14.

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

Indirectly age standardised rate per 100,000 population

■ Southern Tasmanian DGP □ Tasmania ■ Australia



* 'No.' is the total number of deaths for the 2000-02 period; 'Rate' is an annual rate, based on the 3 year average

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

Chronic diseases and risk factors

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

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

Background

In this section, estimates of the prevalence of selected chronic diseases and risk factors, and two summary measures of health, are shown for the Division‡, and for non-remote SLAs within the Division: note that the estimates have been predicted from self-reported data, 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 17-18. The data on which the following charts are based are in Table 15.

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 similar proportion, or relatively more people in the Southern Tasmanian DGP reported having any of the selected chronic conditions than in Australia as a whole (Figure 6): that is, the prevalence rates per 1,000 population were similar or higher.

Prevalence estimates: self-reported health‡

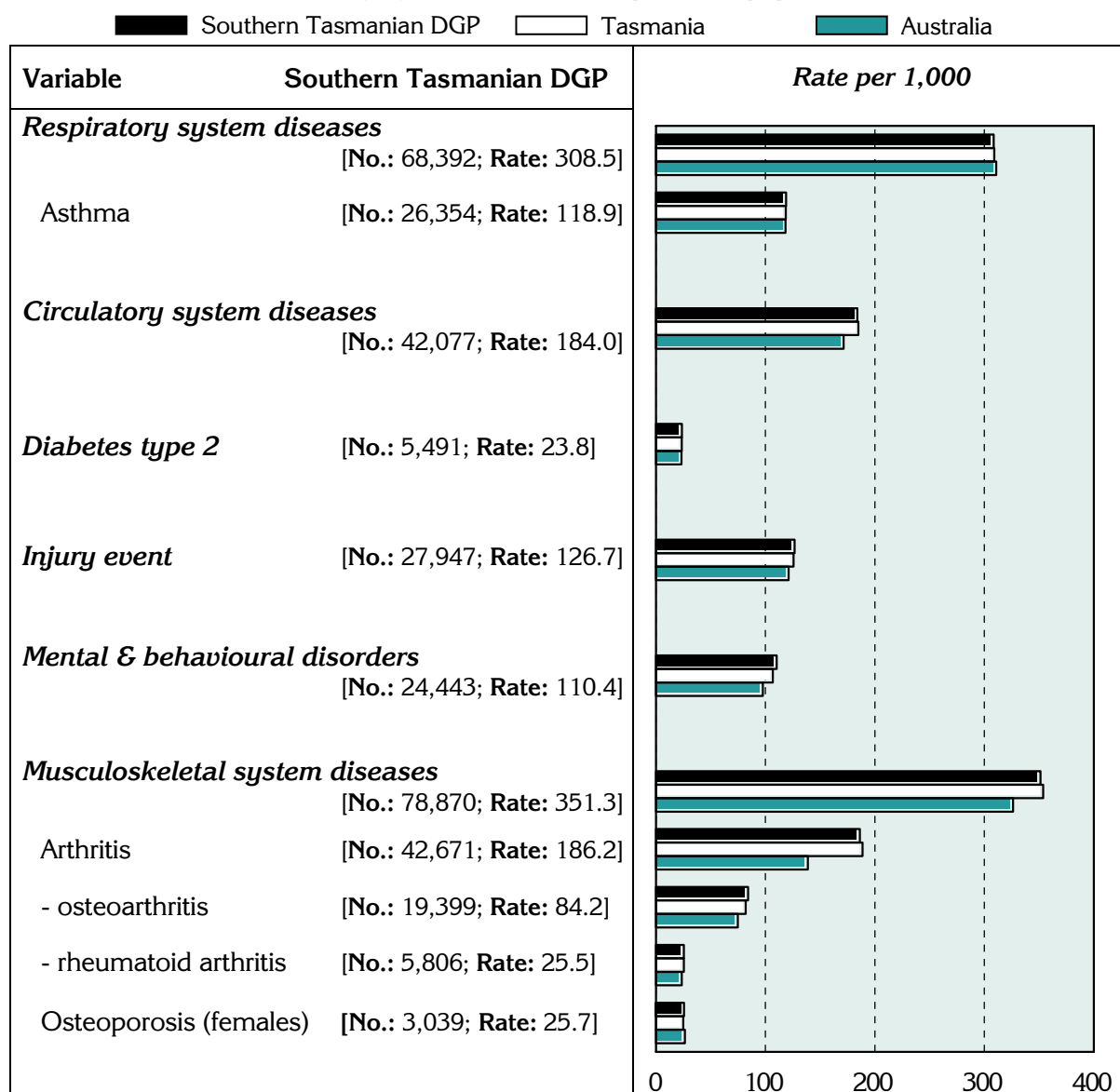
The NHS includes two measures of self-reported health. One is the Kessler Psychological Distress Scale–10 items (K–10). This is a scale of non-specific psychological distress based on 10 questions about negative emotional states in the four weeks prior to interview, asked of respondents 18 years and 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 are estimated to have more people with very high psychological distress levels as measured by the K–10 than in 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 above the national average.

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

Figure 6: Estimates* of chronic disease and injury, Southern Tasmanian DGP‡, Tasmania and Australia, 2001

Indirectly age standardised rate per 1,000 population

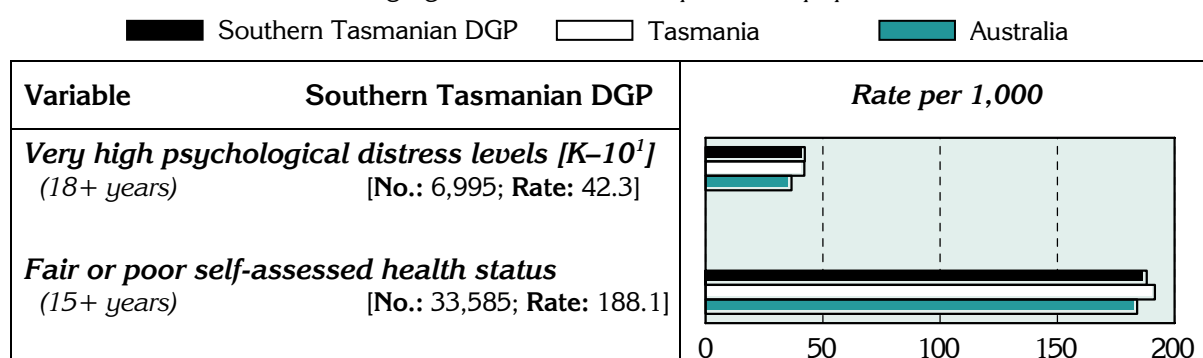


* 'No.' is a weighted estimate of the number of people in Southern Tasmanian DGP reporting each chronic condition and is derived from synthetic predictions from the 2001 NHS

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

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

Indirectly age standardised rate per 1,000 population



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

¹ Kessler 10

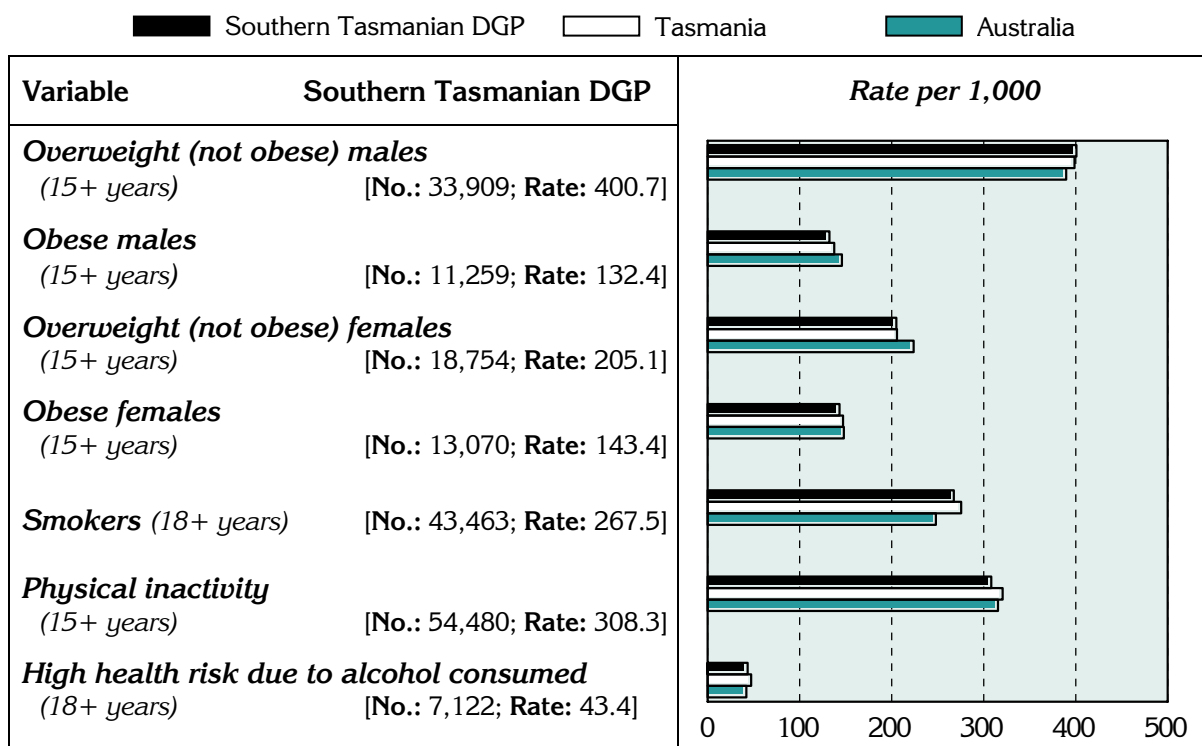
‡ See note under 'Data converters and mapping' re calculation of Division totals

Prevalence estimates: risk factors‡

The Division had similar or lower rates (when compared with the Australian population) for all of the selected risk factors except for overweight males (which was marginally higher) and smoking (Figure 8).

Figure 8: Estimates* of selected risk factors, Southern Tasmanian DGP‡, Tasmania and Australia, 2001

Indirectly age standardised rate per 1,000 population



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

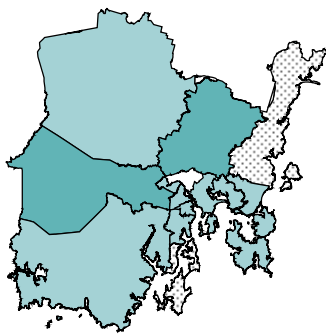
‡ See note under 'Data converters and mapping' re calculation of Division totals

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).

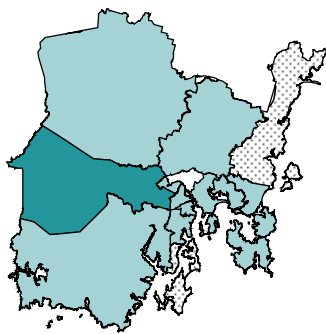
In the following maps, users should note that the estimates shown for part SLAs in the Division (see Table 13, page 21, for per cent of SLA population in the Division) represent the estimates for the whole SLA, and not just the part shown. However, SLAs with only a small proportion of their population 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, Southern Tasmanian DGP, 2001

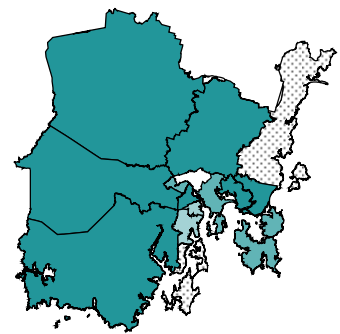
Respiratory system diseases



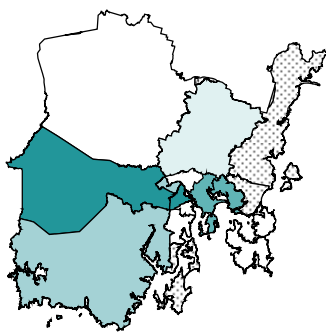
Respiratory system diseases: Asthma



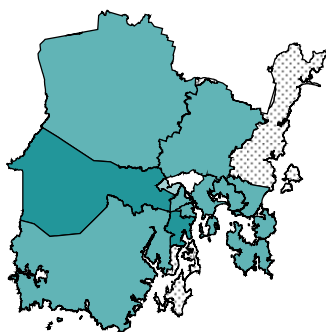
Circulatory system diseases



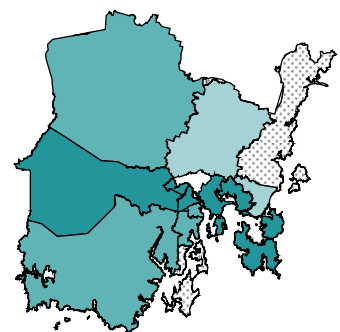
Diabetes type 2



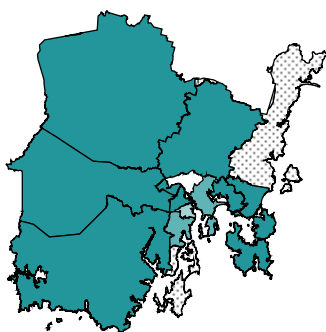
Injury event



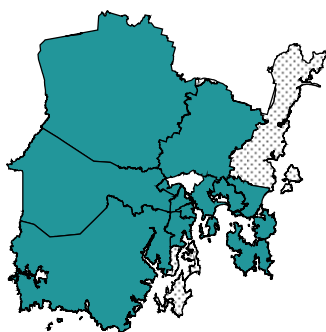
Mental & behavioural disorders



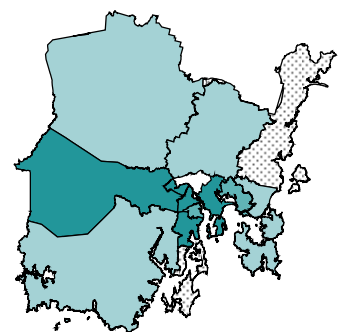
Musculoskeletal system diseases



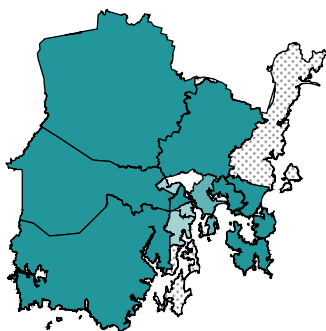
Musculoskeletal system diseases: Arthritis



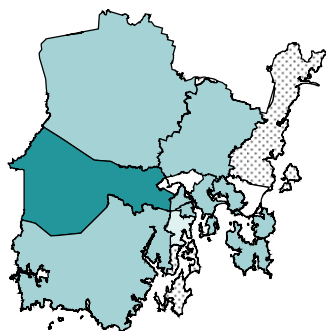
Arthritis: Osteoarthritis



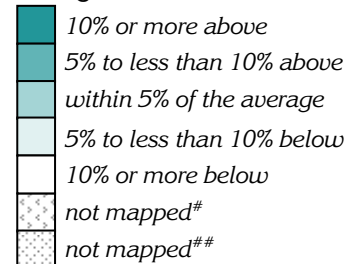
Arthritis: Rheumatoid arthritis



Osteoporosis (females)



Per cent difference from Australian average



* See Notes on the data re these estimates.

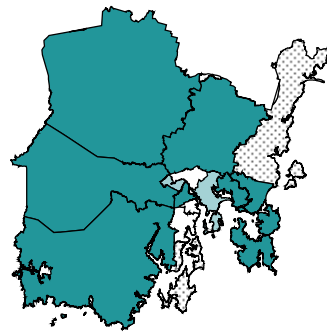
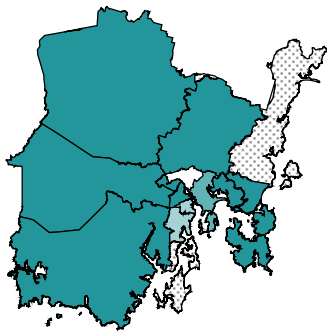
Data not mapped: see 'Data converters and mapping' section under Notes on the data.

Estimates not available for remote areas

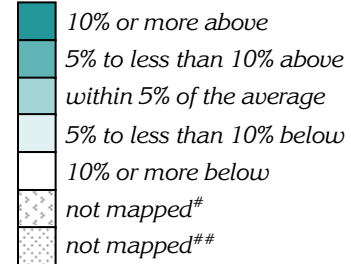
Map 3: Estimates* of measures of self-reported health by SLA, Southern Tasmanian DGP, 2001

Very high psychological distress levels [K-10¹] (18+ years)

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



Per cent difference from Australian average



* See Notes on the data re these estimates.
 # Data not mapped: see 'Data converters and mapping' section under Notes on the data.
 ## Estimates not available for remote areas

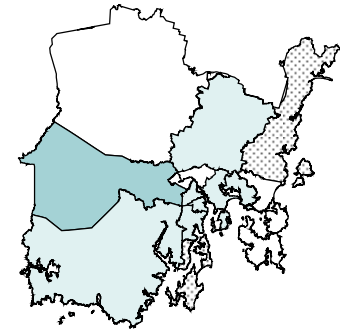
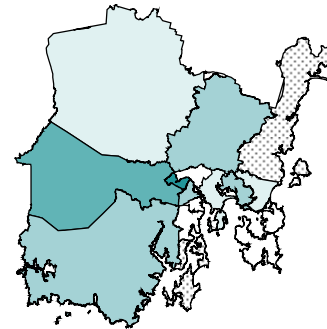
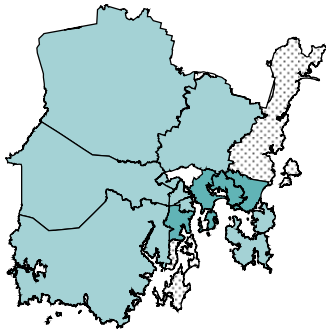
¹ Kessler 10

Map 4: Estimates* of selected risk factors by SLA, Southern Tasmanian DGP, 2001

Overweight (not obese) males (15+ years)

Obese males (15+ years)

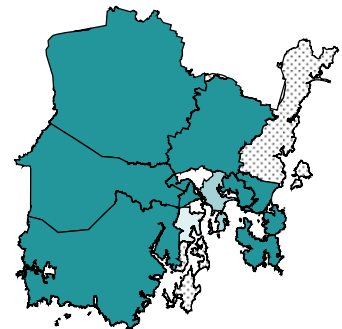
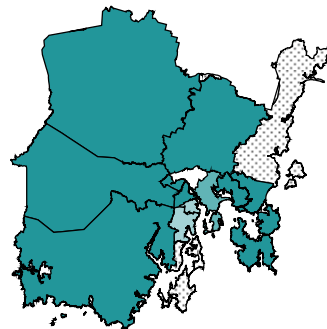
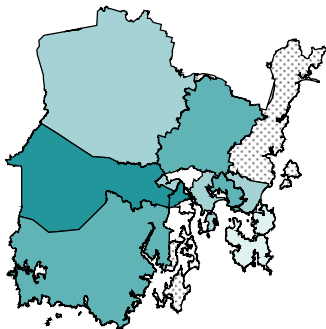
Overweight (not obese) females (15+ years)



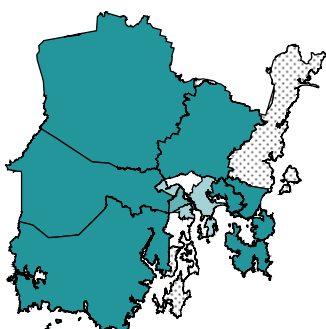
Obese females (15+ years)

Smokers (18+ years)

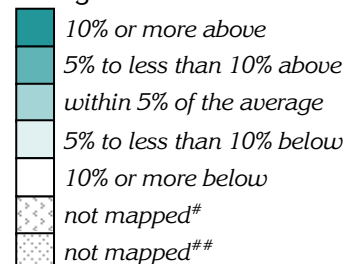
Physical inactivity (15+ years)



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



Per cent difference from Australian average



* See Notes on the data re these estimates.
 # Data not mapped: see 'Data converters and mapping' section under Notes on the data.
 ## Estimates not available for remote areas

Notes on the data

Data sources and limitations

Data sources

Table 10 details the data sources for the material presented in this profile.

Table 10: Data sources

Section	Source
Key indicators	
GP services per head of population	GP services data supplied by Department of Health and Ageing, 2003/04 Population data: Estimated Resident Population, ABS, mean of 30 June 2003 and 30 June 2004 populations
Socio-demographic profile	
Figures 1 and 2; Table 1	Estimated Resident Population, ABS, 30 June for the periods shown
Tables 2, 3 and 4; Figures 3 and 4	Data were extracted by postal area from the ABS Population Census 2001 ¹ , except for the following indicators: - <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 12	ABS SEIFA package, Census 2001
Tables 5, 6 and 7	For all indicators, data were from the ABS Population Census 2001 (unpublished), except for the data in <i>Table 5</i> and the <i>Total population</i> figures which were based on the Experimental estimates of Aboriginal and Torres Strait Islander people, ABS 2001 (unpublished)
General medical practitioner (GP) supply	
Table 8	GP data supplied by Department of Health and Ageing, 2003/04 Population estimates used in calculating the population per GP rates are the: - Census count ² , ABS Population Census 2001, scaled to 2003/04 - Usual Resident Population ³ , ABS Population Census 2001, scaled to 2003/04 - Day-time population: calculated from journey to work data, ABS Population Census (URP) 2001 (unpublished); and 2001 Census URP, scaled to 2003/04 - Estimated Resident Population, ABS, June 2003/2004
Immunisation	
Text comment: 1 year olds	National Centre for Immunisation Research and Surveillance, 2002
Table 9	Australian Childhood Immunisation Register, Health Insurance Commission, 2003/04 (unpublished)
Premature mortality	
Figure 5; Table 14	ABS Deaths, 2000 to 2002
Chronic diseases and associated risk factors⁴	
Figures 6, 7 and 8; Maps 2, 3 and 4; Table 15	Estimated from 2001 National Health Survey (NHS), ABS (unpublished)

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

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

³ *Usual Resident Population* - those who usually live there and who were in Australia at the time and would have provided details in the Census at the address where they were counted

⁴ See notes below

Chronic diseases and associated risk factors

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

The data for chronic conditions and risk factors are self-reported data, reported to interviewers in the 2001 NHS. Table 11 includes notes relevant to this data.

Table 11: Notes on estimates of chronic diseases and associated risk factors

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

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

Methods

Synthetic estimates

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

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

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

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

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

Premature deaths

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

Data converters and mapping

[Conversion to Division of data available by postcode](#)

The allocation of postcodes to Divisions was undertaken using information from the Department of Health and Ageing's web site, which shows the proportion of a postcode in a Division (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 13.

[Mapping](#)

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

Supporting information

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

A definition of population health

Population health, in the context of general practice, has been defined¹ as:

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

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

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

¹ “The role of general practice in population health – A Joint Consensus Statement of the General Practice Partnership Advisory Council and the National Public Health Partnership Group” (Joint Advisory Group on General Practice and Population Health 2001)

² As defined in the Strategic Framework for Aboriginal and Torres Strait Islander Health

SEIFA 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 12) includes all variables that either reflect or measure disadvantage. The Index of Advantage/Disadvantage is used to rank areas in terms of both advantage and disadvantage: any information on advantaged persons in an area will offset information on disadvantaged persons in the area. The Index of Economic Resources and the Index of Education and Occupation were targeted towards specific aspects of advantage/disadvantage.

For further information on the composition and calculation of these indexes see the ABS Information Paper ABS Cat No. 2039.0 available on the ABS web site www.abs.gov.au. The scores for these indexes for each Statistical Local Area (SLA) or part SLA in Southern Tasmanian DGP are shown in Table 12.

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 12: SEIFA scores by SLA, Southern Tasmanian DGP, 2001

SLA code	SLA name (% per cent of SLA in the Division)	Index score			
		Disadvantage	Advantage	Economic Resources	Education Occupation
60410	Brighton (100.0)	829	846	892	839
61010	Central Highlands (99.3)	935	875	869	887
61410	Clarence (100.0)	1001	986	969	998
61511	Derwent Valley - Part A (100.0)	904	877	906	868
61512	Derwent Valley - Part B (100.0)	942	892	888	903
62410	Glamorgan/Spring Bay (73.2)	954	900	887	918
62610	Glenorchy (100.0)	928	903	912	909
62811	Hobart - Inner (100.0)	1076	1077	1020	1127
62812	Hobart - Remainder (100.0)	1066	1094	1031	1138
63010	Huon Valley (100.0)	937	897	889	913
63611	Kingborough - Part A (100.0)	1055	1041	998	1062
63612	Kingborough - Part B (100.0)	1000	974	908	1022
64811	Sorell - Part A (100.0)	955	913	914	921
64812	Sorell - Part B (100.0)	960	910	876	940
65010	Southern Midlands (100.0)	949	882	881	891
65210	Tasman (100.0)	968	901	852	949

* 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 Southern Tasmanian DGP

The Southern Tasmanian DGP covers 24,731 square kilometres, based on 2001 SLA data.

The postcodes in the Division are: 7000-7012, 7015-7027, 7030, 7050-7055, 7109, 7112-7113, 7116-7117, 7119-7120, 7139-7140, 7150, 7155, 7162-7163, 7170-7180, 7182-7187, 7190, and 7401².

Statistical Local Areas (SLAs) are defined by the Australian Bureau of Statistics to produce areas for the presentation and analysis of data. In this Division, some Local Government Areas (LGAs) have been split into SLAs. For example, Derwent Valley has two SLAs, Part A and Part B (both wholly in the Division). These SLAs and all or parts of the other SLAs listed in Table 13 comprise the Division.

Table 13: SLAs in Southern Tasmanian DGP by 2001 boundaries

SLA code	SLA name	Per cent of the SLA's population in the Division*	Estimate of the SLA's 2004 population in the Division
60410	Brighton	100.0	13,439
61010	Central Highlands	99.3	2,279
61410	Clarence	100.0	50,268
61511	Derwent Valley - Part A	100.0	6,519
61512	Derwent Valley - Part B	100.0	2,855
62410	Glamorgan/Spring Bay	73.2	3,064
62610	Glenorchy	100.0	44,935
62811	Hobart - Inner	100.0	442
62812	Hobart - Remainder	100.0	48,102
63010	Huon Valley	100.0	14,350
63611	Kingborough - Part A	100.0	28,195
63612	Kingborough - Part B	100.0	2,773
64811	Sorell - Part A	100.0	10,282
64812	Sorell - Part B	100.0	1,024
65010	Southern Midlands	100.0	5,761
65210	Tasman	100.0	2,223

* 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

² 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 5 to illustrate the rates of premature mortality in the Division are shown below in Table 14.

Table 14: Deaths before 75 years of age by major condition group and selected cause, Southern Tasmanian DGP‡, Tasmania, and Australia, 2000-02*

Indirectly age standardised rate per 100,000 population

Variable	Southern Tasmanian DGP‡		Tasmania		Australia	
	No.	Rate	No.	Rate	No.	Rate
Circulatory system diseases	510	78.9	1,107	82.6	38,357	72.3
Ischaemic heart disease	322	49.8	666	49.6	23,364	44.1
Cerebrovascular disease – stroke	87	13.5	203	15.1	6,920	13.0
Cancer	882	136.3	1,838	137.1	60,603	114.3
Cancer of the trachea, bronchus & lung	205	31.6	426	31.6	12,715	24.0
Respiratory system diseases	155	24.0	336	25.0	9,726	18.3
Chronic lower respiratory disease	121	18.7	264	19.6	6,657	12.6
Injuries and poisonings	238	38.5	498	39.7	18,573	35.0
Suicide	81	13.2	171	13.7	6,706	12.6
Motor vehicle accidents	58	9.4	123	9.9	5,014	9.5
Other causes	349	54.6	761	57.7	26,735	50.4
Diabetes mellitus	39	6.0	92	6.8	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 rates used to illustrate the prevalence estimates of chronic disease and injury (Figure 6), measures of self-reported health (Figure 7), and selected risk factors (Figure 8), are shown in Table 15 below.

Table 15: Estimates of chronic disease and associated risk factors, Southern Tasmanian DGP‡, Tasmania and Australia, 2001

Indirectly age standardised rate per 1,000 population

Variable	Southern Tasmanian DGP‡	Tasmania	Australia
Chronic disease and injury (Figure 6)			
Respiratory system diseases	308.5	309.1	310.8
Asthma	118.9	118.6	118.3
Circulatory system diseases	184.0	185.0	171.5
Diabetes type 2	23.8	23.7	23.4
Injury event	126.7	125.7	121.2
Mental & behavioural disorders	110.4	106.8	97.6
Musculoskeletal system diseases	351.3	353.7	326.2
Arthritis	186.2	188.8	138.8
- Osteoarthritis	84.2	82.0	74.9
- Rheumatoid arthritis	25.5	25.6	23.6
Osteoporosis (females)	25.7	25.0	26.4
Measures of self-reported health (Figure 7)			
Very high psychological distress levels (18+ years)	42.3	42.1	36.6
Fair or poor self-assessed health status (15+ years)	188.1	191.6	184.0
Risk factors (Figure 8)			
Overweight (not obese) males (15+ years)	400.7	398.7	389.7
Obese males (15+ years)	132.4	137.6	145.9
Overweight (not obese) females (15+ years)	205.1	205.8	223.9
Obese females (15+ years)	143.4	147.2	148.0
Smokers (18+ years)	267.5	275.6	248.0
Physical inactivity (15+ years)	308.3	320.5	315.5
High health risk due to alcohol consumed (18+ years)	43.4	47.4	42.1

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

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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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