

Population health profile of the Townsville

Division of General Practice: supplement

Population Profile Series: No. 78a

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Bibliography.

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1. Public health - Queensland - Townsville - Statistics. 2. Health status indicators - Queensland - Townsville - Statistics. 3. Health service areas - Queensland - Townsville. 4. Townsville (Qld.) - Statistics, Medical. I. Public Health Information Development Unit (Australia). (Series : Population profile series ; no. 78a).

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Interpretation of differences between data in this profile and similar data from other sources needs to be undertaken with care, as such differences may be due to the use of different methodology to produce the data.

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Enquiries about or comments on this publication should be addressed to:

PHIDU, The University of Adelaide, South Australia 5005
Phone: 08-8303 6236 or e-mail: PHIDU@publichealth.gov.au

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Contributors: Anthea Page, Sarah Ambrose, Kristin Leahy and John Glover

Population health profile of the Townsville Division of General Practice: supplement

This profile is a supplement to the *Population health profile of the Townsville Division of General Practice*, dated November 2005, available from www.publichealth.gov.au. This supplement includes an update of the population of the Townsville Division of General Practice, as well as additional indicators and aspects of the Division's socioeconomic status, use of GP services and health. The contents are:

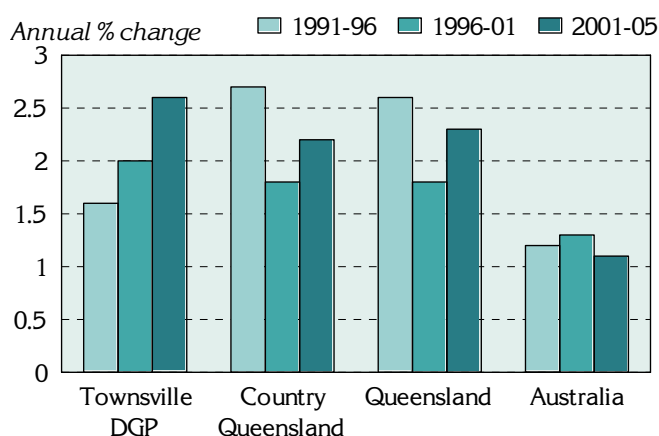
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances – patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive conditions
- Avoidable mortality

For further information on the way Division totals in this report have been estimated, please refer to the 'Notes on the data' section of the *Population health profile*, November 2005 (www.publichealth.gov.au).

Population

The Townsville Division had an Estimated Resident Population of 156,229 at 30 June 2005.

Figure 1: Annual population change, Townsville DGP, country Queensland, Queensland and Australia, 1991 to 1996, 1996 to 2001 and 2001 to 2005



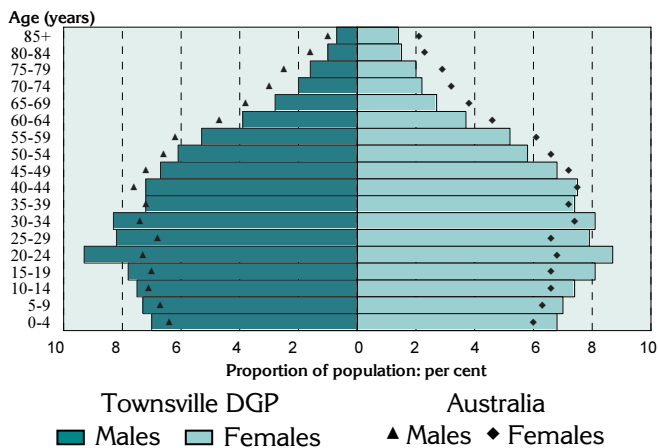
Over the five years from 1991 to 1996, the Division's population increased by 1.6% on average each year, well below that in country Queensland (2.7%) and Queensland (2.6%). From 1996 to 2001, the annual percentage growth rate in the Division increased to 2.0%, above that in country Queensland and Queensland (1.8%). The growth rate of 2.6% per year from 2001 to 2005 was again higher than the annual increases of 2.1% for country Queensland (2.1%) and Queensland (2.3%).

Table 1: Population by age, Townsville DGP and Australia, 2005

Age group (years)	Townsville DGP		Australia	
	No.	%	No.	%
0-14	33,614	21.5	3,978,221	19.6
15-24	26,483	17.0	2,819,834	13.9
25-44	48,314	30.9	5,878,107	28.9
45-64	33,963	21.7	4,984,446	24.5
65-74	7,537	4.8	1,398,831	6.9
75-84	4,710	3.0	954,143	4.7
85+	1,609	1.0	315,027	1.5
Total	156,229	100.0	20,328,609	100.0

As shown in the accompanying table and the age-sex pyramid below, Townsville DGP had relatively more 0 to 14 year olds (21.5%), 15 to 24 year olds (17.0%) and 25 to 44 year olds (30.9%), compared with Australia as a whole (19.6%, 13.9% and 28.9%). (Table 1). Conversely, the proportions of the Division's population aged 45 years and over were lower than those for Australia.

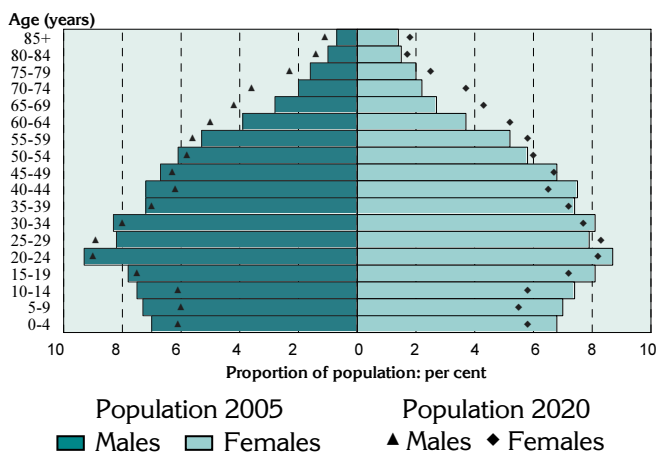
Figure 2: Population in Townsville DGP and Australia, by age and sex, 2005



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

- below 35 years of age – relatively higher proportions of both males and females; and
- from 40 years of age – relatively fewer males and, from 45 years, females.

Figure 3: Population projections for Townsville DGP, by age and sex, 2005 and 2020



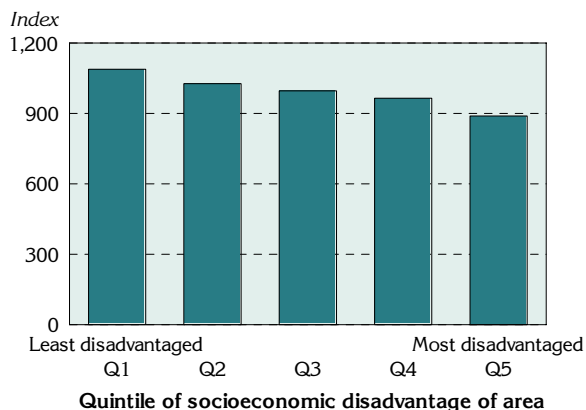
The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- below age 55 – relatively fewer males and females (to age 49), with the exception of the 25 to 29 year age group; and
- from 55 years – relatively more males and females, most pronounced at ages 60 to 74 years.

Additional socio-demographic indicators

Please refer to the earlier *Population health profile of the Townsville, Division of General Practice*, dated November 2005, available from www.publichealth.gov.au, for other socio-demographic indicators.

Figure 4: Index of Relative Socio-Economic Disadvantage, Townsville DGP, 2001



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

The Townsville DGP has an index score of 993, just below the score for Australia of 1000: this score varies across the Division, from a low of 889 in the most disadvantaged areas to 1088 in the least disadvantaged areas.

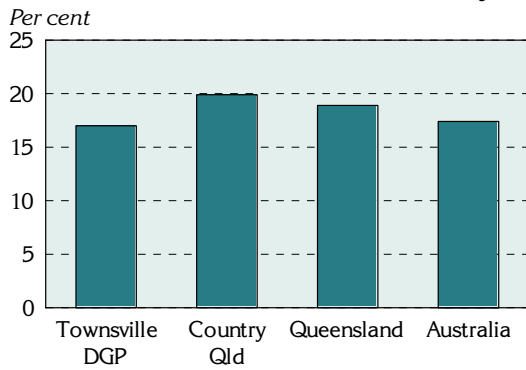
Note: each 'quintile' comprises approximately 20% of the population of the Division.

A new indicator, produced for the first time at the 2001 ABS Census, shows the number of jobless families with children under 15 years of age. There were fewer jobless families in the Townsville DGP (17.0%), than for country Queensland as a whole (19.9%) (Figure 5, Table 2).

With the introduction of the 30% rebate for private health insurance premiums, there was a once-off registration process, providing information of the postcode and residence of those who had such insurance (these data are not available at this area level for later dates). In 2001, the Division had a higher proportion of the population with private health insurance (43.4%), compared to country Queensland (40.3%) (Figure 5, Table 2).

Figure 5: Socio-demographic indicators, Townsville DGP, country Queensland, Queensland and Australia, 2001

Jobless families with children under 15 years old



Private health insurance, 30 June

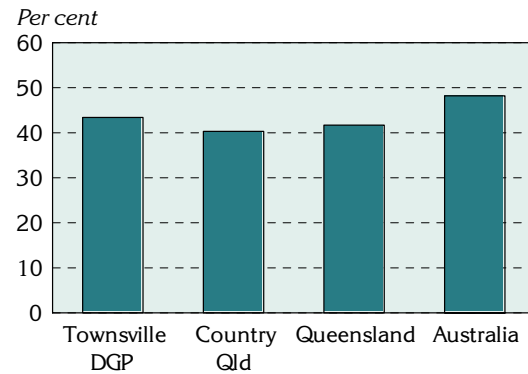


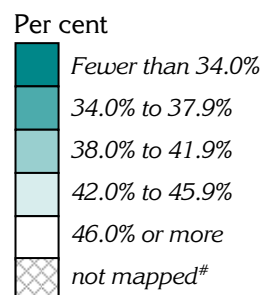
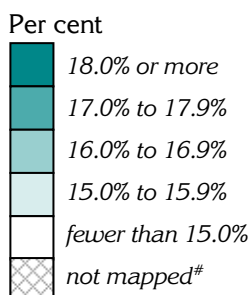
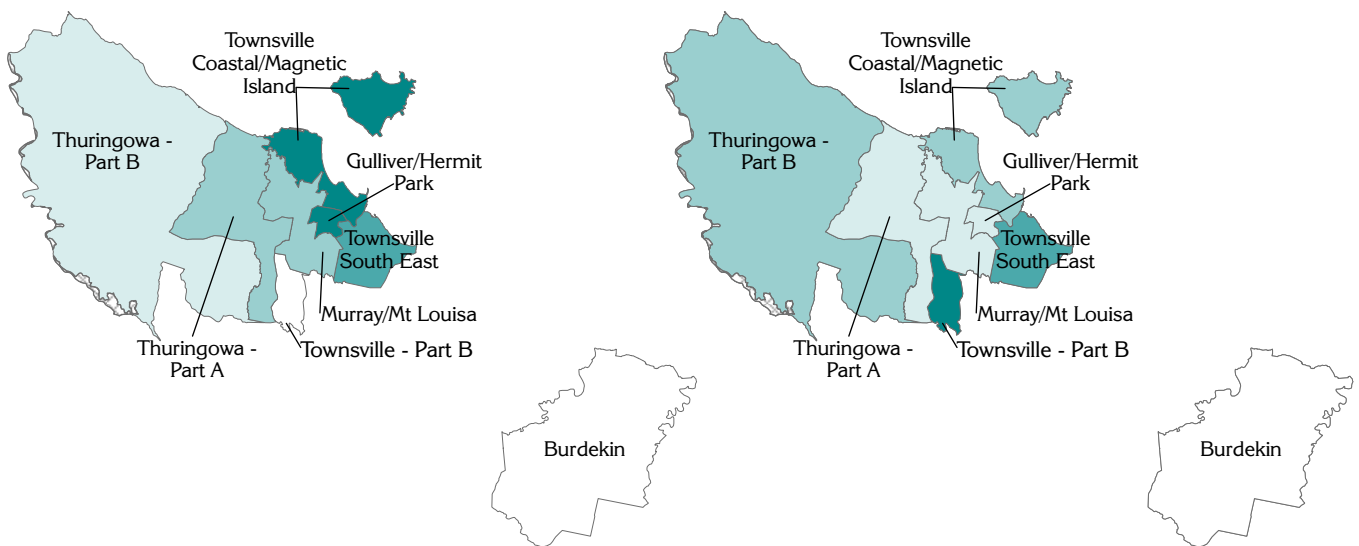
Table 2: Socio-demographic indicators, Townsville DGP, country Queensland, Queensland and Australia, 2001

Indicator	Townsville DGP		Country Queensland		Queensland		Australia	
	No.	%	No.	%	No.	%	No.	%
Jobless families with children under 15 years old	2,736	17.0	42,801	19.9	74,942	18.9	357,563	17.4
Private health insurance (30 June)	61,218	43.4	812,860	40.3	1,511,613	41.7	8,671,106	46.0

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

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

Map 2: People covered by private health insurance by SLA, Townsville DGP, 30 June 2001



[#] data were not mapped: see 'Mapping' note under Methods

[#] data were not mapped: see 'Mapping' note under Methods

GP services to residents of the Townsville DGP

The following tables include information, purchased from Medicare Australia, of the movement of patients and GPs between Divisions. Note that the data only include unreferred attendances recorded under Medicare: unreferred attendances not included are those for which the cost is met by the Department of Veterans' Affairs or a compensation scheme; or are provided by salaried medical officers in hospitals, community health services or Aboriginal Medical Services, and which are not billed to Medicare. At any attendance, one or more services may have been provided.

The majority (93.4%) of all unreferred attendances to residents of Townsville DGP were provided in the Division (ie. by a GP with a provider number in the Division): this represented 564,013 GP unreferred attendances (Table 3). A further 1.4% of unreferred attendances to residents were provided by GPs with a provider number in North & West Queensland DGP.

Table 3: Patient flow – People living¹ in Townsville DGP by Division where attendance occurred², 2003/04

Division		Unreferred attendances	
Number	Name	No.	% ³
412	Townsville DGP	564,013	93.4
416	North & West Queensland DGP	8,502	1.4
413	Cairns DGP	3,985	0.7
405	GPpartners DGP	2,756	0.5
417	Far North Queensland DGP	2,305	0.4
411	Mackay DGP	2,157	0.4
Other	..	20,389	3.4
Total	..	604,107	100.0

¹ Based on address in Medicare records

² Division of GP based on provider number

³ Proportion of all unreferred attendances of patients with an address in Division 412 by Division in which attendance occurred

The majority (88.2%) of unreferred attendances provided by GPs with a provider number in Townsville DGP were also to people living in the Division (ie. their Medicare address was in the Division) (Table 4). A further 5.0% of unreferred attendances by GPs in the Division were to residents from North & West Queensland DGP.

Table 4: GP catchment – Unreferred attendances provided by GPs¹ in Townsville DGP by Division of patient address², 2003-04

Division		Unreferred attendances	
Number	Name	No.	% ³
412	Townsville DGP	564,013	88.2
416	North & West Queensland DGP	31,904	5.0
417	Far Northern Queensland DGP	3,930	0.6
411	Mackay DGP	3,448	0.5
413	Cairns DGP	3,106	0.5
405	GPpartners DGP	2,480	0.4
Other	..	30,907	4.8
Total	..	639,788	100.0

¹ Division of GP based on provider number

² Based on address in Medicare records

³ Proportion of all unreferred attendances to GPs with a provider number in Division 412 by Division of patient address

Additional prevalence estimates: chronic diseases and risk factors combined

Please refer to the earlier *Population health profile of the Townsville Division of General Practice*, dated November 2005, available from www.publichealth.gov.au, for the separate prevalence estimates of chronic disease; measures of self-reported health and risk factors. The process by which the estimates have been made, and details of their limitations, are also described in the 'Notes on the data' section of this earlier profile.

In this section two estimates, which combine the prevalence of selected chronic diseases with a risk factor, are shown for the Division. The measures are of people who *had asthma and were smokers*, and people who *had type 2 diabetes and were overweight or obese*: note that the estimates have been predicted from self-reported data, and are not based on clinical records or physical measures.

It is estimated that there were more people in Townsville DGP who had asthma and were smokers, compared to Australia as a whole, although the rates were below those in country Queensland (Figure 6, Table 5): that is, the prevalence rates per 1,000 population were higher than the national rates. The rates of people in Townsville DGP who had type 2 diabetes and were overweight/ obese were higher than country Queensland and marginally above those of Australia.

Figure 6: Estimates of selected chronic diseases and risk factors, Townsville DGP, country Queensland and Australia, 2001



Table 5: Estimates of selected chronic diseases and risk factors, Townsville DGP, country Queensland, Queensland and Australia, 2001

Variable	Townsville DGP		Country Queensland		Queensland		Australia	
	No. ¹	Rate ²	No. ¹	Rate ²	No. ¹	Rate ²	No. ¹	Rate ¹
Had asthma & smoked ³	3,568	23.0	46,582	24.8	83,759	23.2	397,734	20.8
Had type 2 diabetes & were overweight/obese ⁴	1,838	15.6	29,819	14.5	52,952	15.0	283,176	15.2

¹ No. is a weighted estimate of the number of people in Townsville DGP reporting these chronic conditions/ with these risk factors and is derived from synthetic predictions from the 2001 NHS

² Rate is the indirectly age-standardised rate per 1,000 population

³ Population aged 18 years and over

⁴ Population aged 15 years and over

Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive conditions

The rationale underlying the concept of avoidable hospitalisations is that timely and effective care of certain conditions, delivered in a primary care setting, can reduce the risk of hospitalisation. Admissions to hospital for these ambulatory care sensitive (ACS) conditions can be avoided in three ways. Firstly, for conditions that are usually preventable through immunisation or nutritional intervention, disease can be prevented almost entirely. Secondly, diseases or conditions that can lead to rapid onset problems, such as dehydration and gastroenteritis, can be treated. Thirdly, chronic conditions, such as congestive heart failure, can be managed to prevent or reduce the severity of acute flare-ups to avoid hospitalisation.

This measure does not include other aspects of avoidable morbidity, namely potentially preventable hospitalisations (hospitalisations resulting from diseases preventable through population based health promotion strategies, e.g. alcohol-related conditions; and most cases of lung cancer) and hospitalisations avoidable through injury prevention (e.g. road traffic accidents).

For information on the ambulatory care sensitive conditions and ICD codes included in the analysis in this section, please refer to the *Atlas of Avoidable Hospitalisations in Australia: ambulatory care-sensitive conditions*, available from www.publichealth.gov.au.

In 2001 to 2002, the 3,339 admissions from ambulatory care sensitive (ACS) conditions accounted for 7.6% of all admissions in the Townsville DGP (Table 6, Figure 7), notably lower than the levels in Queensland (8.5%) and Australia (8.7%).

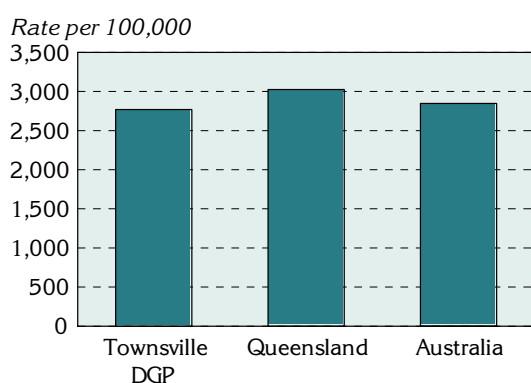
Table 6: Avoidable¹ and unavoidable hospitalisations, Townsville DGP, Queensland, and Australia, 2001/02

Category	Townsville DGP			Queensland			Australia		
	No.	Rate ²	%	No.	Rate ²	%	No.	Rate ²	%
Avoidable ¹	3,339	2,768.9	7.6	106,884	3,025.0	8.5	552,786	2,847.5	8.7
Unavoidable	40,651	32,060.6	92.4	1,153,519	32,410.1	91.5	5,818,199	29,970.7	91.3
Total	43,989	34,841.9	100.0	1,260,403	35,435.5	100.0	6,370,985	32,818.2	100.0

¹ Admissions resulting from ACS conditions

² Rate is the indirectly age-standardised rate per 100,000 population

Figure 7: Avoidable hospitalisations¹, Townsville DGP, Queensland and Australia, 2001/02



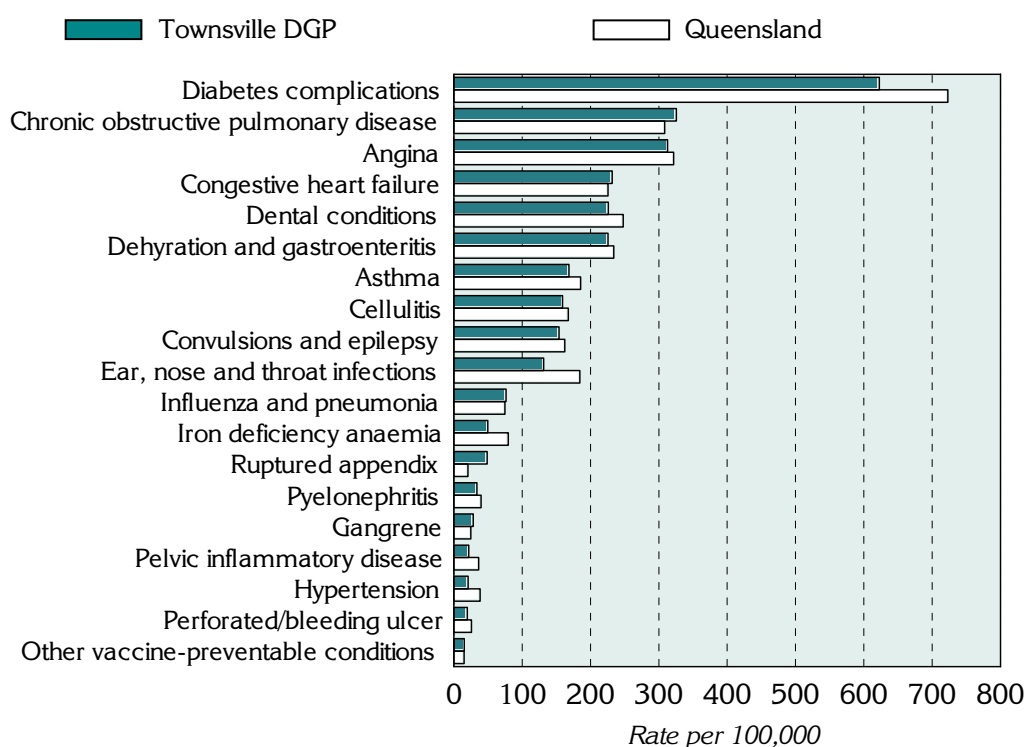
The rate of avoidable hospitalisations in Townsville DGP is lower, a rate of 2,768.9 admissions per 100,000 population, compared to Queensland (a rate of 3,025.0), and Australia (2,847.5).

¹ Admissions resulting from ACS conditions

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

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

Figure 8: Avoidable hospitalisations¹ by condition, Townsville DGP and Queensland, 2001/02



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

Table 7: Avoidable hospitalisations¹ by condition, Townsville DGP, Queensland and Australia, 2001/02

Sub-category/ condition	Townsville DGP		Queensland		Australia	
	No.	Rate ²	No.	Rate ²	No.	Rate ²
Vaccine-preventable	115	91.6	3,188	89.6	16,573	85.4
Influenza and pneumonia	94	76.3	2,646	74.6	13,021	67.1
Other vaccine preventable	21	15.3	542	15.0	3,552	18.3
Chronic³	1,879	1,731.5	65,455	1,882.0	352,545	1,816
Diabetes complications	676	622.6	25,175	722.9	141,345	728.1
Iron deficiency anaemia	55	49.5	2,772	79.7	16,451	84.7
Hypertension	23	20.9	1,324	38.3	6,354	32.7
Congestive heart failure	222	231.6	7,617	225.5	42,447	218.6
Angina	328	312.8	11,134	321.5	49,963	257.4
Chronic obstructive pulmonary disease	330	325.6	10,619	308.5	54,853	282.6
Asthma	245	168.5	6,814	185.6	41,009	211.3
Acute	1,432	1,048.0	41,300	1,143.3	200,913	1,035
Dehydration and gastroenteritis	284	225.5	8,278	234.1	37,766	194.5
Convulsions and epilepsy	219	153.8	5,902	162.3	31,137	160.4
Ear, nose and throat infections	199	131.3	6,829	184.4	32,075	165.2
Dental conditions	329	226.0	9,101	247.8	43,667	224.9
Perforated/bleeding ulcer	21	19.6	892	25.8	5,795	29.9
Ruptured appendix	71	48.8	754	20.7	3,866	19.9
Pyelonephritis	47	33.8	1,437	39.8	7,386	38.0
Pelvic inflammatory disease	32	21.7	1,315	36.2	6,547	33.7
Cellulitis	199	159.1	5,930	167.4	28,204	145.3
Gangrene	31	28.4	862	24.8	4,470	23.0
Total avoidable hospitalisations⁴	3,339	2,768.9	106,884	3,025.0	552,786	2,847.5

¹ Admissions resulting from ACS conditions

² Rate is the indirectly age-standardised rate per 100,000 population

³ Excludes nutritional deficiencies as less than ten admissions

⁴ Sub-category and condition numbers and rates do not add to the reported total avoidable admissions: five conditions (influenza & pneumonia, other vaccine preventable, diabetes complications, ruptured appendix and gangrene) are counted in 'any diagnosis', so may be included in more than one condition group

Avoidable mortality

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

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

Almost three quarters (72.8%) of all deaths in Townsville DGP at ages 0 to 74 years over the period 1997 to 2001 are considered to be avoidable, the same proportion as for country Queensland (72.8%) (Table 8). Deaths amenable to health care (amenable mortality, a subset of avoidable mortality) accounted for 30.3% of all deaths at ages 0 to 74 years in Townsville DGP, compared to 29.3% in country Queensland.

Table 8: Avoidable and unavoidable mortality (0 to 74 years) by area, Townsville DGP, country Queensland, Queensland and Australia, 1997 to 2001

Mortality category	Townsville DGP		Country Queensland		Queensland		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable	1,305	245.8	20,859	227.8	35,515	220.6	189,845	211.8
% of total	72.8	..	72.8	..	72.8	..	71.5	..
(Amenable)	(544)	(105.5)	(8,383)	(91.5)	(14,323)	(89.3)	(76,249)	(85.1)
(% of total)	(30.3)	(..)	(29.3)	(..)	(29.3)	(..)	(28.7)	(..)
Unavoidable	488	93.4	7,793	85.0	13,291	82.7	75,582	84.3
% of total	27.2	..	27.2	..	27.2	..	28.5	..
Total mortality	1,793	339.3	28,652	312.8	48,806	303.4	265,427	296.1
%	100.0	..	100.0	..	100.0	..	100.0	..

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

Rates of avoidable mortality were higher for males than for females in each of the comparator areas. Townsville DGP's rate of avoidable mortality for males was 314.8 deaths per 100,000 males, notably higher than the rate of 175.9 for females. Similarly, the rate of amenable mortality for males in the Division was higher, 120.2, compared to 90.6 for females, a rate ratio of 1.33 (Figure 9, Table 9).

Figure 9: Avoidable and amenable mortality by sex (0 to 74 years), Townsville DGP, country Queensland, Queensland and Australia, 1997 to 2001

Note: the different scales



Table 9: Avoidable and amenable mortality (0 to 74 years) by sex, Townsville DGP, country Queensland, Queensland and Australia, 1997 to 2001

Mortality category and sex	Townsville DGP		Country Queensland		Queensland		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable								
Males	860	314.8	9,362	269.5	23,316	285.3	123,026	272.6
Females	444	175.9	5,294	152.0	12,199	155.1	66,819	150.1
Total	1,305	245.8	14,656	211.2	35,515	220.6	189,845	211.8
Rate ratio-M:F²	..	1.79**	..	1.77**	..	1.84**	..	1.82**
Amenable								
Males	317	120.2	3,249	95.2	8,181	100.4	42,568	94.3
Females	228	90.6	2,691	77.4	6,142	78.0	33,681	75.7
Total	544	105.5	5,940	86.4	14,323	89.3	76,249	85.1
Rate ratio-M:F²	..	1.33**	..	1.23**	..	1.29**	..	1.25**

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

² Rate ratio (M:F) is the ratio of male to female rates; rate ratios differing significantly from 1.0 are shown with * p <0.05; ** p <0.01

Another way of measuring premature mortality is to calculate the number of years of life lost (YLL)¹, which takes into account the years a person could have expected to live at each age of death based on the average life expectancy at that age.

The numbers of YLL for Townsville DGP, country Queensland, Queensland and Australia over the period of analysis are shown in Table 10 by mortality category. However, given the substantial variation in the populations of these areas, a comparison of the proportion of YLL for each area is also shown.

YLL from avoidable mortality accounted for 72.8% of total YLL (0 to 74 years) for Townsville DGP, consistent with the 72.9% for country Queensland. Similarly, the proportion of YLL from amenable mortality in Townsville DGP (30.7%) was above that for country Queensland (28.5%).

Table 10: Years of life lost from avoidable mortality (0 to 74 years), Townsville DGP, country Queensland, Queensland and Australia, 1997 to 2001

Mortality category	Townsville DGP		country Queensland		Queensland		Australia	
	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Avoidable	23,671	72.8	369,609	72.9	629,779	72.9	3,327,375	71.9
(Amenable)	(9,987)	(30.7)	(144,553)	(28.5)	(247,893)	(28.7)	(1,298,430)	(28.0)
Unavoidable	8,849	27.2	137,686	27.1	234,699	27.1	1,303,289	28.1
Total	32,520	100.0	507,294	100.0	864,478	100.0	4,630,664	100.0

¹ Years of life lost were calculated using the remaining life expectancy method (this provides an estimate of the average time a person would have lived had he or she not died prematurely). The reference life table was the Coale and Demeny Model Life Table West level 26 female (for both males and females), with the YLL discounted to net present value at a rate of 3 per cent per year.

In each of the areas in Table 11, the majority of avoidable mortality at ages 0 to 74 years occurred in the 65 to 74 year age group (Table 11), with 1,650.0 deaths per 100,000 population in Townsville Division. The 45 to 64 year age group accounted for the next highest rate of avoidable death in all of the comparators, with a rate 375.5 in Townsville DGP.

Table 11: Avoidable and amenable mortality by age, Townsville DGP, country Queensland, Queensland and Australia, 1997 to 2001

Mortality category and age (years)	Townsville DGP		Country Queensland		Queensland		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Avoidable								
0-14	65	41.8	500	30.1	1,208	32.2	5,669	28.8
15-24	47	39.2	562	44.8	1,386	54.3	7,045	52.8
25-44	171	79.5	1,916	77.8	4,527	84.9	24,356	83.9
45-64	486	375.5	5,107	301.7	12,543	322.5	64,282	304.9
65-74	536	1,650.0	6,571	1410.9	15,851	1404.6	88,493	1,358.1
Total	1,305	245.8	14,656	211.2	35,515	220.6	189,845	211.8
Amenable								
0-24	65	24.5	451	15.9	1,059	16.8	5,083	15.4
25-44	52	25.1	491	20.1	1,165	21.8	5,946	20.5
45-64	203	158.1	2,236	132.2	5,352	137.9	27,464	130.3
65-74	224	690.2	2,762	591.5	6,748	599.1	37,756	579.4
Total	544	105.5	5,940	86.4	14,323	89.3	76,249	85.1

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

Table 12 shows the number and age-standardised death rate by selected major condition group and selected causes included in the avoidable mortality classification.

The highest rates of avoidable mortality for the selected major condition groups in the Townsville DGP were for cardiovascular diseases, with a rate of 82.5 deaths per 100,000 population, and cancer, 81.0 deaths per 100,000 population (Table 12, Figure 10). For the selected causes within the condition groups, the two major causes of avoidable mortality were ischaemic heart disease and lung cancer, with rates of 62.8 per 100,000 population and 31.8 per 100,000, respectively.

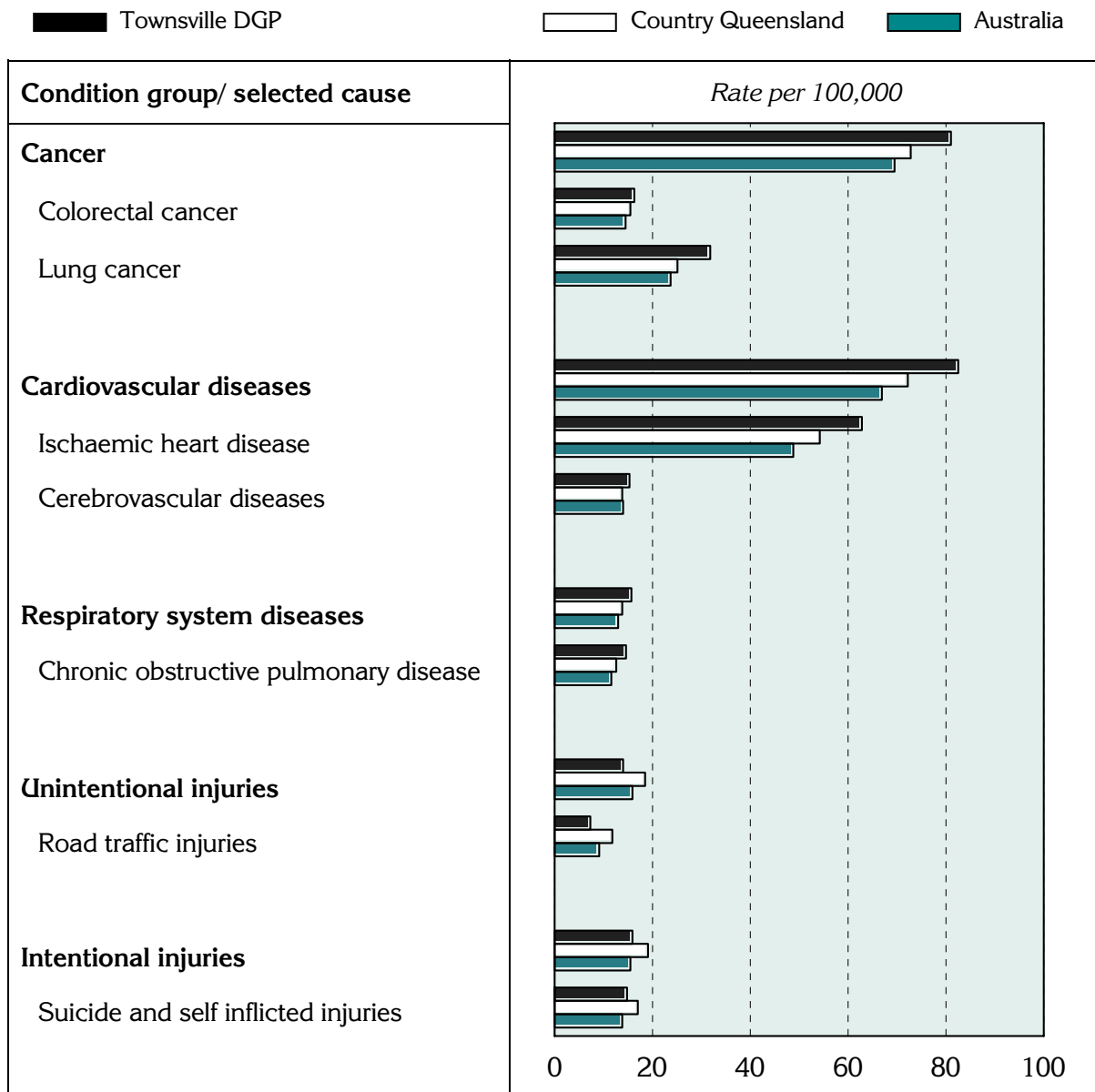
Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Townsville DGP, country Queensland, Queensland and Australia, 1997 to 2001

Condition group/ selected cause	Townsville DGP		Country Queensland		Queensland		Australia	
	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹	No.	Rate ¹
Cancer	407	81.0	6,690	72.8	11,618	72.6	62,338	69.5
Colorectal cancer	81	16.3	1,425	15.5	2,392	15.0	13,008	14.5
Lung cancer	156	31.8	2,329	25.1	4,062	25.4	21,208	23.7
Cardiovascular diseases	405	82.5	6,646	72.2	11,294	71.0	59,945	66.9
Ischaemic heart disease	309	62.8	5,005	54.2	8,434	52.9	43,712	48.8
Cerebrovascular diseases	74	15.3	1,263	13.8	2,210	14.0	12,558	14.0
Respiratory system diseases	75	15.7	1,262	13.8	2,168	13.7	11,612	13.0
Chronic obstructive pulmonary disease	68	14.6	1,159	12.6	1,970	12.5	10,395	11.6
Unintentional injuries	93	14.0	1,662	18.5	2,630	15.8	14,224	15.9
Road traffic injuries	49	7.3	1,054	11.8	1,565	9.4	8,138	9.1
Intentional injuries	105	15.9	1,712	19.1	3,017	18.2	13,891	15.5
Suicide and self inflicted injuries	98	14.8	1,521	17.0	2,719	16.4	12,393	13.8

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

Rates in the Division for the condition groups and selected causes were generally above, or consistent with, those for country Queensland and Australia: the main exceptions were the injury categories, with higher rates in country Queensland (Figure 10).

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



Notes on the data

Data sources and limitations

General

References to 'country Queensland' relate to Queensland excluding the Brisbane Statistical Division.

Data sources

Table 13 details the data sources for the material presented in this profile.

Table 13: Data sources

Section	Source
Population	
Figures 1 and 2; Table 1	Estimated Resident Population, ABS, 30 June for the periods shown
Figure 3	Estimated Resident Population, ABS, 30 June 2005; Population Projections, ABS, 30 June 2020 (unpublished) ¹
Additional socio-demographic indicators	
Figure 4	ABS SEIFA package, Census 2001
Table 2; Figure 5; Map 1	Jobless families, ABS, 2001 (unpublished)
Table 2; Figure 5; Map 2	Private health insurance, from Hansard
GP services – patient flow/ GP catchment	
Tables 3 and 4	Medicare Australia, 2003/04
Additional prevalence estimates: chronic diseases and risk factors combined	
Figure 6; Table 5	Estimated from 2001 National Health Survey (NHS), ABS (unpublished)
Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive conditions	
Tables 6 and 7; Figures 7 and 8	National Hospital Morbidity Database at Australian Institute of Health & Welfare, 2001/02; data produced in HealthWIZ by Prometheus Information (not available in public release dataset)
Avoidable mortality	
Tables 8, 9, 10, 11 and 12; Figures 9 and 10	ABS Deaths 1997-2001; data produced in HealthWIZ by Prometheus Information (not available in public release dataset)

¹ The projected population at June 2020 is based on the 2002 ERP. As such, it is somewhat dated, and does not take into account more recent demographic trends: it is however the only projection series available at the SLA level for the whole of Australia.

Methods

For background information on the additional prevalence estimates presented in this profile, please refer to the 'Notes on the data' section of the *Population health profile*, November 2005 (www.publichealth.gov.au).

Please also refer to the November 2005 profile for information on the data converters.

Mapping

In some Divisions the maps may include a very small part of an SLA which has not been allocated any population; or has a population of less than 100 or has less than 1% of the SLAs total population; or there were less than five cases (i.e. jobless families, people with health insurance): these areas are mapped with a pattern.

Statistical geography of the Townsville DGP

For information on the postcodes in the Division, please refer the Department of Health and Ageing website <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pcd-programs-divisions-divspc.htm>; also included in table format in the 'Notes on the data' section of the *Population health profile*, November 2005 (www.publichealth.gov.au).

Statistical Local Areas (SLAs) are defined by the Australian Bureau of Statistics to produce areas for the presentation and analysis of data. In this Division, most SLAs are also suburbs. As many of these have very small populations, they have been grouped to form areas of larger population: the groupings are those used in HealthWIZ. The SLA group name does not in all cases include the names of all the SLAs in the group: all relevant SLA codes are shown in Table 14.

Table 14: SLAs and population in Townsville DGP, 2005 on 2001 boundaries

SLA code	SLA/ SLA group name	Per cent of SLA/ SLA group's population in the Division*	Estimate of the SLA/ SLA group's 2004 population in the Division
31900	Burdekin	5.5	1,040
37012, 37018, 37026, 37027, 37034, 37051, 37058	Gulliver/Hermit Park	100.0	20,349
37001, 37007, 37014, 37015, 37023, 37033, 37038, 37071	Murray/Mt Louisa	100.0	43,629
36801, 36804, 36807	Thuringowa - Part A	100.0	51,594
36831	Thuringowa - Part B	84.1	6,422
37003, 37031, 37041, 37047, 37054, 37062, 37065, 37074	Townsville Coastal / Magnetic Island	100.0	23,429
37044, 37068, 37078	Townsville South East	100.0	9,766

* 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

Acknowledgements

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Further developments and updates

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

PHIDU contact details

For general comments, data issues or enquiries re information on the web site, please contact PHIDU:

Phone: 08-8303 6236 or e-mail: PHIDU@publichealth.gov.au