# Population health profile of the Northern Sydney Division of General Practice: supplement

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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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# Population health profile of the Northern Sydney Division of General Practice: supplement

This profile is a supplement to the *Population health profile of the Northern Sydney Division of General Practice*, dated November 2005, available from www.publichealth.gov.au. This supplement includes an update of the population of the Northern Sydney 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:

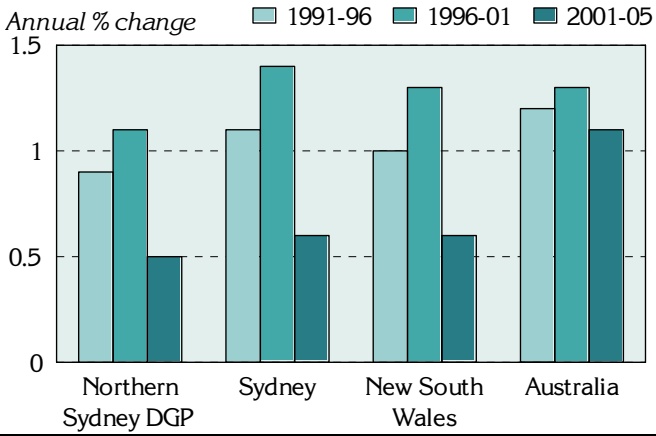
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances – patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive 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 Northern Sydney Division had an Estimated Resident Population of 213,226 at 30 June 2005.

**Figure 1: Annual population change, Northern Sydney DGP, Sydney, New South Wales and Australia, 1991 to 1996, 1996 to 2001 and 2001 to 2005**



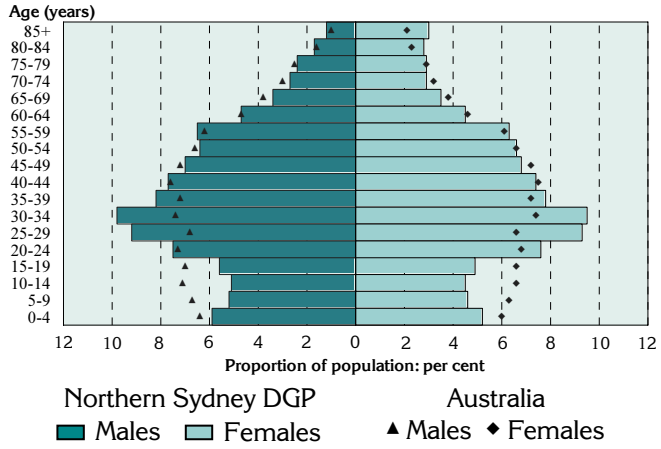

Over the five years from 1991 to 1996, the Division's population change (0.9%) was lower on average each year than in Sydney (1.1%), New South Wales (1.0%) and Australia (1.2%). From 1996 to 2001 the Division's annual percentage increase of 1.1% was again lower than for Sydney (1.4%), New South Wales and Australia (both 1.3%). From 2001 to 2005, the average annual increase declined to 0.5%, below that for Sydney and New South Wales (both 0.6%), and Australia (1.1%).

**Table 1: Population by age, Northern Sydney DGP and Australia, 2005**

| Age group (years) | Northern Sydney DGP | | Australia | |
|---|---|---|---|---|
| | No. | % | No. | % |
| 0-14 | 32,387 | 15.2 | 3,978,221 | 19.6 |
| 15-24 | 27,316 | 12.8 | 2,819,834 | 13.9 |
| 25-44 | 73,418 | 34.4 | 5,878,107 | 28.9 |
| 45-64 | 51,915 | 24.3 | 4,984,446 | 24.5 |
| 65-74 | 13,231 | 6.2 | 1,398,831 | 6.9 |
| 75-84 | 10,407 | 4.9 | 954,143 | 4.7 |
| 85+ | 4,551 | 2.1 | 315,027 | 1.5 |
| **Total** | **213,226** | **100.0** | **20,328,609** | **100.0** |

As shown in the accompanying table and the age-sex pyramid below (Figure 2), Northern Sydney DGP had a notably lower proportion of children at ages 0 to 14 years (15.2%) compared to Australia as a whole (19.6%). Conversely, the Division had a notably higher proportion of its population aged 25 to 44 years (34.4%, compared with 28.9% for Australia). The 75 to 85+ years age groups in the Division also had higher proportions compared to Australia.

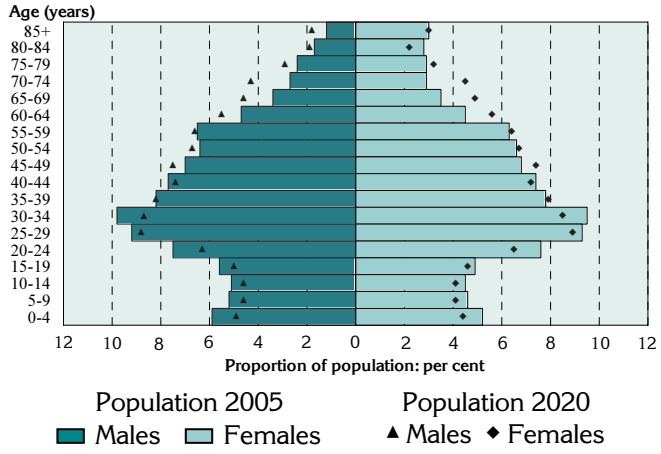
**Figure 2: Population in Northern Sydney DGP and Australia, by age and sex, 2005**




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

- at younger ages – much lower proportions of children and young people aged 0 to 19 years;
- from 20 to 39 years – higher proportions of both males and females; and
- at older ages – marginally lower proportions of males and females aged 65 to 74 years; and higher proportions of females aged 80 to 84 years and over.

**Figure 3: Population projections for Northern Sydney DGP, by age and sex, 2005 and 2020**



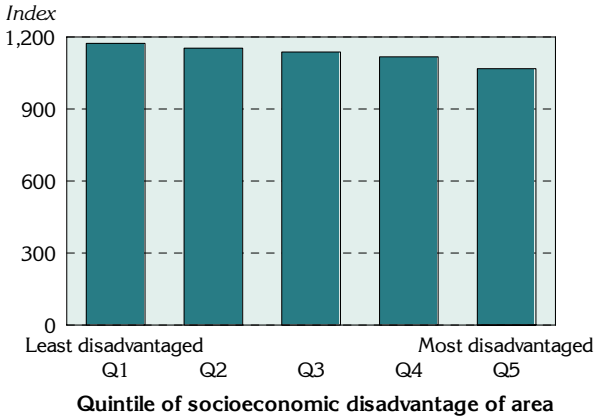

The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- at younger ages – lower proportions of males and females aged 0 to 34 years (only marginally lower at ages 5 to19 years and 25 to 29 years);
- at ages 60 to 79 years – higher proportions of males and females (most pronounced at ages 60 to 74 years); and
- slightly higher proportions of males aged 75 years and over.

## Additional socio-demographic indicators

Please refer to the earlier *Population health profile of the Northern Sydney 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, Northern Sydney DGP, 2001**




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

The Northern Sydney DGP has an index score of 1129, well above the score for Australia of 1000: this score varies relatively little across the Division, from a (still high) score of 1068 in the most disadvantaged areas to 1173 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 substantially fewer jobless families in the Northern Sydney DGP (7.0%), compared to Sydney as a whole (15.6%) (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 markedly higher proportion of the population with private health insurance (70.2%), compared to Sydney (50.2%) (Figure 5, Table 2).

**Figure 5: Socio-demographic indicators, Northern Sydney DGP, Sydney, New South Wales and Australia, 2001**

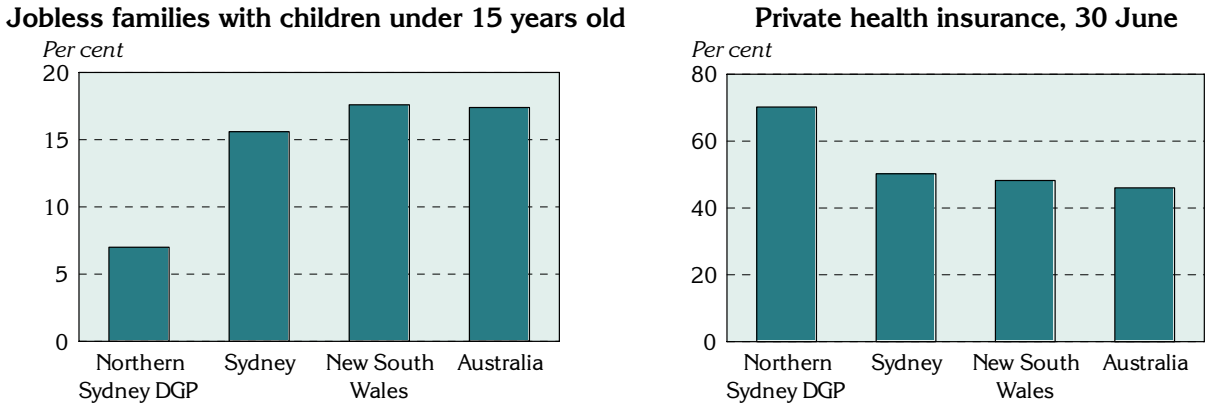
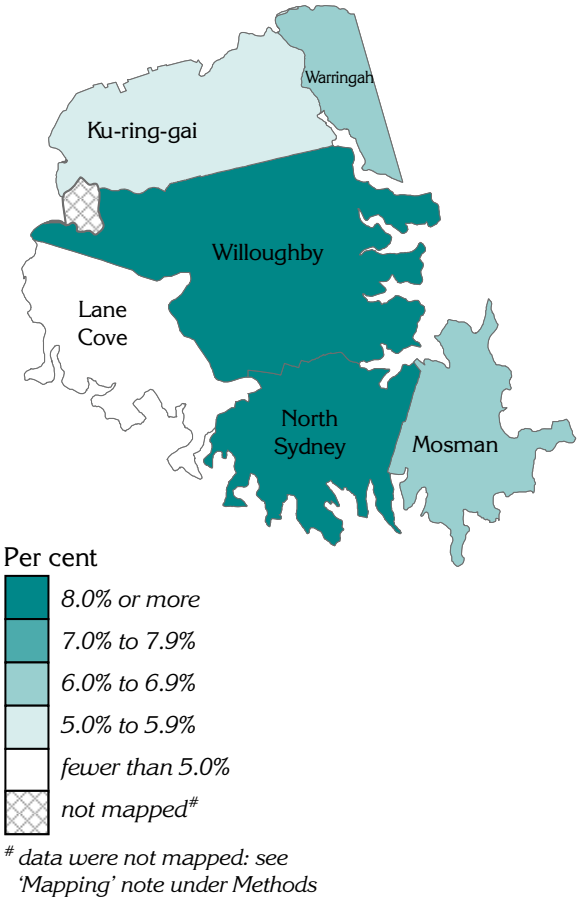



**Table 2: Socio-demographic indicators, Northern Sydney DGP, Sydney, New South Wales and Australia, 2001**

| Indicator | Northern Sydney DGP | | Sydney | | New South Wales | | Australia | |
|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % |
| Jobless families with children under 15 years old | 1,155 | 7.0 | 66,526 | 15.6 | 121,409 | 17.6 | 357,563 | 17.4 |
| Private health insurance (30 June) | 139,310 | 70.2 | 2,000,802 | 50.2 | 3,062,382 | 48.2 | 8,671,106 | 46.0 |

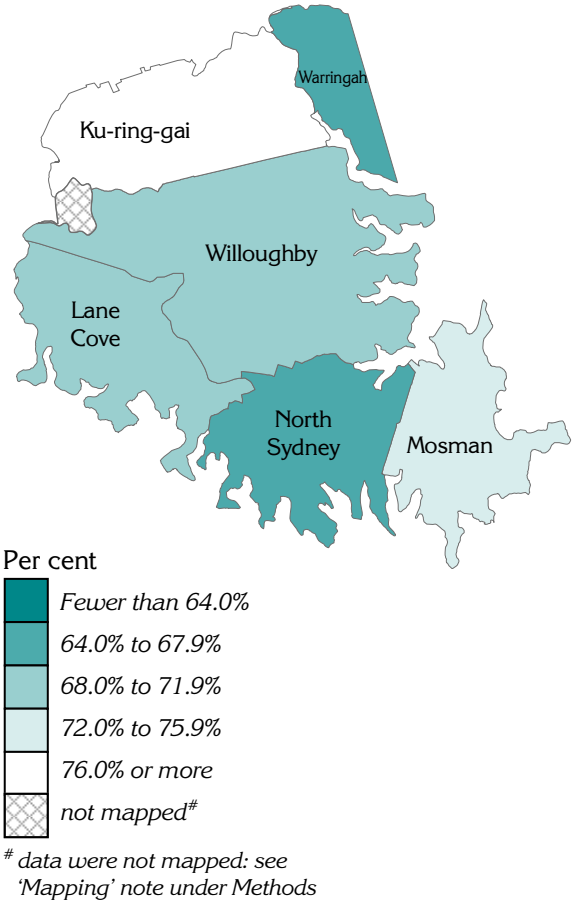
Details of the distribution of jobless families and of the population covered by private health insurance are shown by Statistical Local Area (SLA) in Maps 1 and 2, respectively.

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




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

**Map 2: People covered by private health insurance by SLA, Northern Sydney DGP, 30 June 2001**




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

# GP services to residents of the Northern Sydney 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.

More than three quarters (78.1%) of all unreferred attendances for residents of Northern Sydney DGP were provided in the Division (ie. by a GP with a provider number in the Division): this represented 727,419 GP unreferred attendances (Table 3). A further 5.5% of unreferred attendances to residents were provided by GPs with a provider number in Eastern Sydney DGP, with 4.5% provided by GPs in Hornsby Ku-ring-gai Ryde DGP.

**Table 3: Patient flow – People living[1] in Northern Sydney DGP by Division where attendance occurred[2], 2003/04**

| Division | | Unreferred attendances | |
|---|---|---|---|
| Number | Name | No. | %[3] |
| 208 | Northern Sydney DGP | 727,419 | 78.1 |
| 202 | Eastern Sydney DGP | 51,461 | 5.5 |
| 212 | Hornsby Ku-ring-gai Ryde DGP | 41,922 | 4.5 |
| 213 | Manly Warringah DGP | 38,655 | 4.2 |
| 201 | Central Sydney DGP | 22,463 | 2.4 |
| 206 | Western Sydney DGP (now WentWest & part Hawkesbury-Hills) | 7,974 | 0.9 |
| 203 | South Eastern Sydney DGP | 6,877 | 0.7 |
| 204 | Canterbury DGP | 2,977 | 0.3 |
| 209 | St George DGP | 2,604 | 0.3 |
| Other | .. | 74,779 | 3.1 |
| **Total** | .. | **1,958,263** | **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 201 by Division in which attendance occurred**

Almost two thirds (65.0%) of unreferred attendances provided by GPs with a provider number in Northern Sydney DGP were also to people living in the Division (ie. their Medicare address was in the Division) (Table 4). A further 14.0% of unreferred attendances by GPs in the Division were to people living in Hornsby Ku-ring-gai Ryde DGP, with 6.2% to residents from Manly Warringah DGP.

**Table 4: GP catchment – Unreferred attendances provided by GPs[1] in Northern Sydney DGP by Division of patient address[2], 2003/04**

| Division | | Unreferred attendances | |
|---|---|---|---|
| Number | Name | No. | %[3] |
| 208 | Northern Sydney DGP | 727,419 | 65.0 |
| 212 | Hornsby Ku-ring-gai Ryde DGP | 156,444 | 14.0 |
| 213 | Manly Warringah DGP | 69,511 | 6.2 |
| 201 | Central Sydney DGP | 37,281 | 3.3 |
| 202 | Eastern Sydney DGP | 27,009 | 2.4 |
| 206 | Western Sydney DGP (now WentWest & part Hawkesbury-Hills) | 19,948 | 1.8 |
| 219 | Central Coast DGP | 10,050 | 0.9 |
| 203 | South Eastern Sydney DGP | 8,696 | 0.8 |
| 209 | St George DGP | 5,462 | 0.5 |
| Other | .. | 57,131 | 5.1 |
| **Total** | .. | **1,118,951** | **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 201 by Division of patient address**

# Additional prevalence estimates: chronic diseases and risk factors combined

Please refer to the earlier *Population health profile of the Northern Sydney 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 relatively fewer people in Northern Sydney DGP who had asthma and were smokers, compared to Sydney and Australia as a whole (Figure 6, Table 5): that is, the prevalence rates per 1,000 population were lower, and markedly so in relation to the Australian rate. There were slightly lower rates of people in Northern Sydney DGP who had type 2 diabetes and were overweight/ obese, compared to Sydney and Australia.

**Figure 6: Estimates of selected chronic diseases and risk factors, Northern Sydney DGP, Sydney and Australia, 2001**

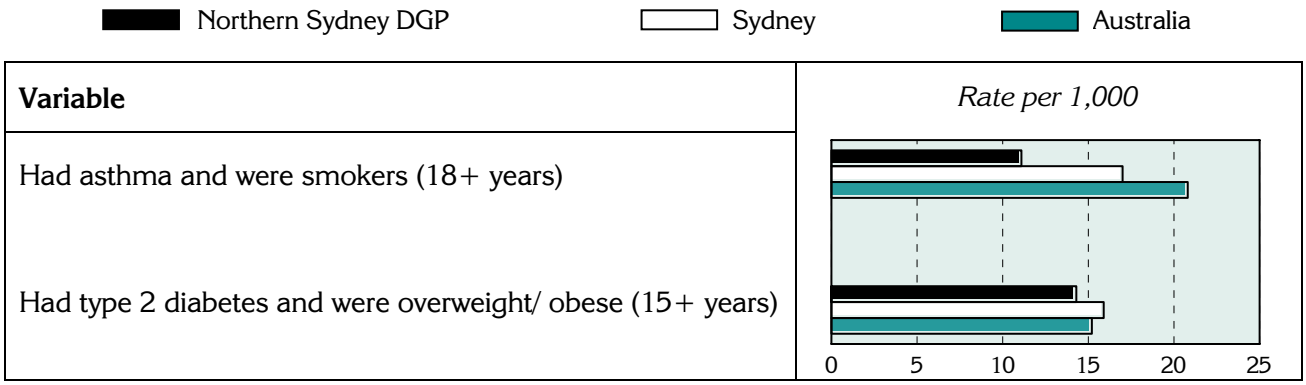



**Table 5: Estimates of selected chronic diseases and risk factors, Northern Sydney DGP, Sydney, New South Wales and Australia, 2001**

| Variable | Northern Sydney DGP | | Sydney | | New South Wales | | Australia | |
|---|---|---|---|---|---|---|---|---|
| | No.[1] | Rate[2] | No.[1] | Rate[2] | No.[1] | Rate[2] | No.[1] | Rate[1] |
| Had asthma and smoked[3] | 2,494 | 11.1 | 72,198 | 17.0 | 126,542 | 19.7 | 397,734 | 20.8 |
| Had type 2 diabetes & were overweight/ obese[4] | 2,795 | 14.3 | 59,451 | 15.9 | 100,235 | 15.7 | 283,176 | 15.2 |

[1] **No. is a weighted estimate of the number of people in Northern Sydney 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.

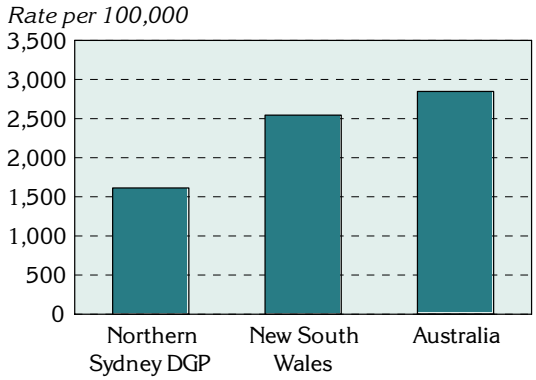
In 2001 to 2002, the 3,449 admissions from ambulatory care sensitive (ACS) conditions accounted for 5.6% of all admissions in the Northern Sydney DGP (Table 6, Figure 7), markedly below the levels for both New South Wales (8.6%) and Australia (8.7%).

**Table 6: Avoidable[1] and unavoidable hospitalisations, Northern Sydney DGP, New South Wales, and Australia, 2001/02**

| Category | Northern Sydney DGP | | | New South Wales | | | Australia | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. | Rate[2] | % | No. | Rate[2] | % | No. | Rate[2] | % |
| Avoidable[1] | 3,449 | 1,612.9 | 5.6 | 170,066 | 2,543.8 | 8.6 | 552,786 | 2,847.5 | 8.7 |
| Unavoidable | 57,778 | 26,467.3 | 94.4 | 1,810,901 | 27,255.3 | 91.4 | 5,818,199 | 29,970.7 | 91.3 |
| **Total** | **61,227** | **28,097.0** | **100.0** | **1,980,967** | **29,798.8** | **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 hospitalisations[1], Northern Sydney DGP, New South Wales and Australia, 2001/02**



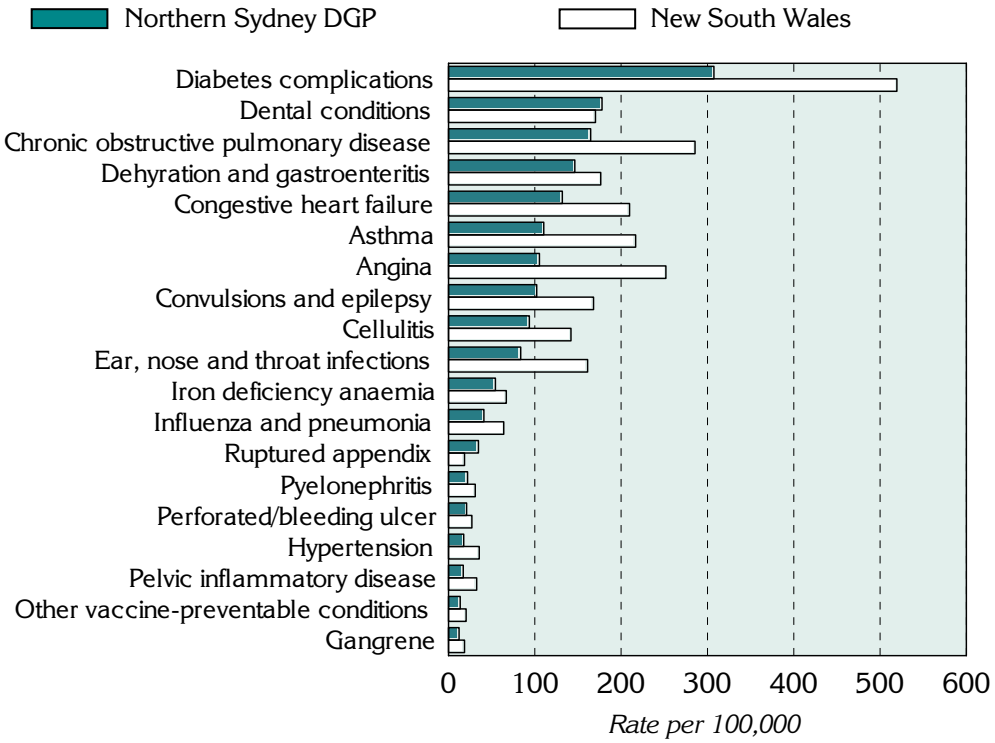

[1] **Admissions resulting from ACS conditions**

The rate of avoidable hospitalisations in Northern Sydney DGP is markedly lower, a rate of 1,612.9 admissions per 100,000 population, compared to both New South Wales (a rate of 2,543.8), and Australia (2,847.5).

Diabetes complications, dental conditions and chronic obstructive pulmonary disease, were the three conditions with the highest rates of avoidable hospitalisations in the Northern Sydney DGP (Figure 8, Table 7): however, rates for both diabetes complications and chronic obstructive pulmonary disease were markedly lower than the rates for New South Wales.

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 hospitalisations[1] by condition, Northern Sydney DGP and New South Wales, 2001/02**




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

**Table 7: Avoidable hospitalisations[1] by condition, Northern Sydney DGP, New South Wales and Australia, 2001/02**

| Sub-category/ condition | Northern Sydney DGP | | New South Wales | | Australia | |
|---|---|---|---|---|---|---|
| | No. | Rate[2] | No. | Rate[2] | No. | Rate[2] |
| **Vaccine-preventable** | **117** | **54.7** | **5,630** | **84.5** | **16,573** | **85.4** |
| Influenza and pneumonia | 88 | 41.1 | 4,280 | 64.1 | 13,021 | 67.1 |
| Other vaccine preventable | 29 | 13.6 | 1,350 | 20.4 | 3,552 | 18.3 |
| **Chronic[3]** | **1,946** | **891.7** | **106,803** | **1,587.0** | **352,545** | **1,816** |
| Diabetes complications | 663 | 307.6 | 34,975 | 519.5 | 141,345 | 728.1 |
| Iron deficiency anaemia | 123 | 54.3 | 4,494 | 67.0 | 16,451 | 84.7 |
| Hypertension | 40 | 17.6 | 2,398 | 35.7 | 6,354 | 32.7 |
| Congestive heart failure | 318 | 131.8 | 14,270 | 209.7 | 42,447 | 218.6 |
| Angina | 234 | 105.4 | 16,987 | 251.8 | 49,963 | 257.4 |
| Chronic obstructive pulmonary disease | 357 | 164.6 | 19,359 | 285.6 | 54,853 | 282.6 |
| Asthma | 211 | 110.4 | 14,289 | 216.8 | 41,009 | 211.3 |
| **Acute** | **1,478** | **711.3** | **62,543** | **946.0** | **200,913** | **1,035** |
| Dehydration and gastroenteritis | 332 | 146.4 | 11,725 | 176.4 | 37,766 | 194.5 |
| Convulsions and epilepsy | 208 | 102.3 | 11,093 | 168.1 | 31,137 | 160.4 |
| Ear, nose and throat infections | 154 | 83.6 | 10,615 | 161.1 | 32,075 | 165.2 |
| Dental conditions | 344 | 177.9 | 11,196 | 170.3 | 43,667 | 224.9 |
| Perforated/bleeding ulcer | 48 | 21.1 | 1,830 | 27.1 | 5,795 | 29.9 |
| Ruptured appendix | 69 | 34.8 | 1,212 | 18.5 | 3,866 | 19.9 |
| Pyelonephritis | 49 | 22.2 | 2,038 | 31.0 | 7,386 | 38.0 |
| Pelvic inflammatory disease | 40 | 17.1 | 2,134 | 32.7 | 6,547 | 33.7 |
| Cellulitis | 206 | 93.7 | 9,451 | 142.0 | 28,204 | 145.3 |
| Gangrene | 28 | 12.2 | 1,249 | 18.6 | 4,470 | 23.0 |
| **Total avoidable hospitalisations[4]** | **3,449** | **1,612.9** | **170,066** | **2,543.8** | **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.

More than two thirds (69.4%) of all deaths in Northern Sydney DGP at ages 0 to 74 years over the period 1997 to 2001 are considered to be avoidable, below the proportion for Sydney (71.3%) (Table 8). However, the rate in the Division is markedly (29%) lower than that in Sydney, a differential of 0.71.

Deaths amenable to health care (amenable mortality, a subset of avoidable mortality) accounted for 29.8% of all deaths at ages 0 to 74 years in Northern Sydney DGP, compared to 28.6% in Sydney.

**Table 8: Avoidable and unavoidable mortality (0 to 74 years) by area, Northern Sydney DGP, Sydney, New South Wales and Australia, 1997 to 2001**

| Mortality category | Northern Sydney DGP | | Sydney | | New South Wales | | Australia | |
|---|---|---|---|---|---|---|---|---|
| | No. | Rate[1] | No. | Rate[1] | No. | Rate[1] | No. | Rate[1] |
| Avoidable | 1,342 | 141.0 | 36,709 | 199.5 | 66,151 | 213.6 | 189,845 | 211.8 |
| **% of total** | **69.4** | .. | **71.3** | .. | **71.4** | .. | **71.5** | .. |
| (Amenable) | (576) | (61.1) | (14,736) | (80.6) | (26,374) | (85.0) | (76,249) | (85.1) |
| **(% of total)** | **(29.8)** | (..) | **(28.6)** | **(..)** | **(28.5)** | **(..)** | **(28.7)** | **(..)** |
| Unavoidable | 592 | 62.8 | 14,768 | 80.6 | 26,468 | 85.3 | 75,582 | 84.3 |
| **% of total** | **30.6** | .. | **28.7** | .. | **28.6** | .. | **28.5** | .. |
| **Total mortality** | **1,934** | **203.8** | **51,477** | **280.1** | **92,619** | **299.0** | **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. Northern Sydney DGP's rate of avoidable mortality for males was 171.7 deaths per 100,000 males, more than one and a half times the rate of 109.2 for females. Similarly, the rate of amenable mortality for males in the Division was higher, 64.0, compared to 57.9 for females, a rate ratio of 1.11 (Figure 9, Table 9).

**Figure 9: Avoidable and amenable mortality by sex (0 to 74 years), Northern Sydney DGP, Sydney, New South Wales and Australia, 1997 to 2001**

*Note: the different scales*

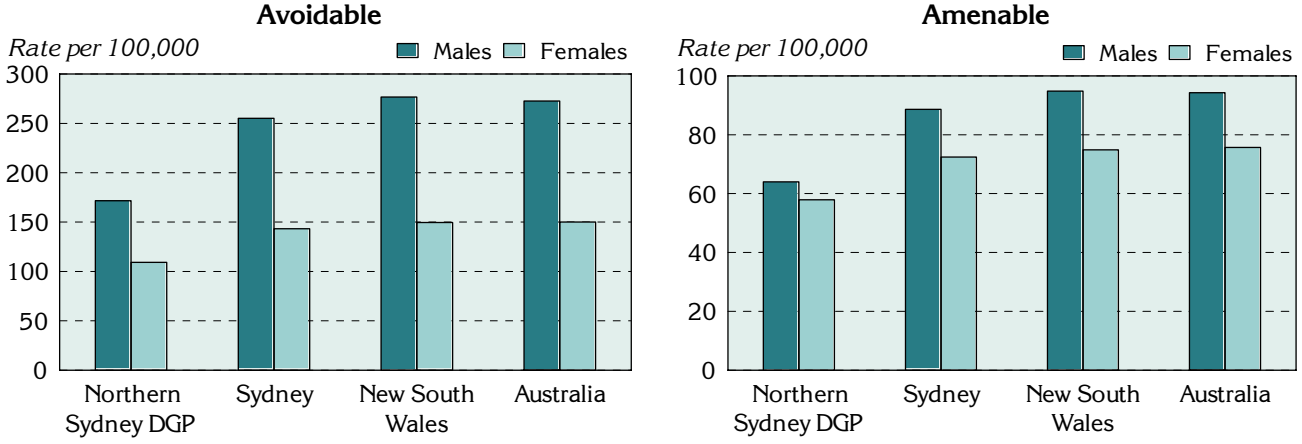


**Table 9: Avoidable and amenable mortality (0 to 74 years) by sex, Northern Sydney DGP, Sydney, New South Wales and Australia, 1997 to 2001**

| Mortality category and sex | Northern Sydney DGP | | Sydney | | New South Wales | | Australia | |
|---|---|---|---|---|---|---|---|---|
| | No. | Rate[1] | No. | Rate[1] | No. | Rate[1] | No. | Rate[1] |
| **Avoidable** | | | | | | | | |
| Males | 804 | 171.7 | 23,505 | 255.1 | 43,074 | 276.8 | 123,026 | 272.6 |
| Females | 539 | 109.2 | 13,204 | 143.2 | 23,077 | 149.6 | 66,819 | 150.1 |
| **Total** | **1,342** | **141.0** | **36,709** | **199.5** | **66,151** | **213.6** | **189,845** | **211.8** |
| **Rate ratio–M:F[2]** | **..** | **1.57**** | **..** | **1.78**** | **..** | **1.85**** | **..** | **1.82**** |
| **Amenable** | | | | | | | | |
| Males | 293 | 64.0 | 8,068 | 88.6 | 14,811 | 94.8 | 42,568 | 94.3 |
| Females | 284 | 57.9 | 6,667 | 72.4 | 11,562 | 74.9 | 33,681 | 75.7 |
| **Total** | **576** | **61.1** | **14,736** | **80.6** | **26,374** | **85.0** | **76,249** | **85.1** |
| **Rate ratio–M:F[2]** | **..** | **1.11** | **..** | **1.22**** | **..** | **1.27**** | **..** | **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 Northern Sydney DGP, Sydney, New South Wales and Australia over the period of the 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 70.2% of total YLL (0 to 74 years) for Northern Sydney DGP, lower than the 71.7% for Sydney. The proportion of YLL from amenable mortality for Northern Sydney DGP (29.3%) was higher than for Sydney (28.0%).

**Table 10: Years of life lost from avoidable mortality (0 to 74 years), Northern Sydney DGP, Sydney, New South Wales and Australia, 1997 to 2001**

| Mortality category | Northern Sydney DGP | | Sydney | | New South Wales | | Australia | |
|---|---|---|---|---|---|---|---|---|
| | No. | % of total | No. | % of total | No. | % of total | No. | % of total |
| Avoidable | 23,352 | 70.2 | 644,323 | 71.7 | 1,147,183 | 71.8 | 3,327,375 | 71.9 |
| (Amenable) | (9,757) | (29.3) | (251,183) | (28.0) | (444,143) | (27.8) | (1,298,430) | (28.0) |
| Unavoidable | 9,918 | 29.8 | 254,314 | 28.3 | 451,496 | 28.2 | 1,303,289 | 28.1 |
| **Total** | **33,270** | **100.0** | **898,637** | **100.0** | **1,598,679** | **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 964.4 deaths per 100,000 population in Northern Sydney 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 199.2 in Northern Sydney Division.

**Table 11: Avoidable and amenable mortality by age, Northern Sydney DGP, Sydney, New South Wales and Australia, 1997 to 2001**

| Mortality category and age (years) | Northern Sydney DGP | | Sydney | | New South Wales | | Australia | |
|---|---|---|---|---|---|---|---|---|
| | No. | Rate[1] | No. | Rate[1] | No. | Rate[1] | No. | Rate[1] |
| **Avoidable** | | | | | | | | |
| 0-14 | 33 | 20.0 | 1,098 | 26.6 | 1,836 | 27.5 | 5,669 | 28.8 |
| 15-24 | 47 | 34.9 | 1,303 | 44.9 | 2,241 | 50.9 | 7,045 | 52.8 |
| 25-44 | 165 | 46.9 | 4,802 | 74.3 | 8,119 | 82.9 | 24,356 | 83.9 |
| 45-64 | 463 | 199.2 | 12,603 | 289.9 | 22,358 | 311.1 | 64,282 | 304.9 |
| 65-74 | 635 | 964.4 | 16,903 | 1,307.3 | 31,597 | 1,375.8 | 88,493 | 1,358.1 |
| **Total** | **1,342** | **141.0** | **36,709** | **199.5** | **66,151** | **213.6** | **189,845** | **211.8** |
| **Amenable** | | | | | | | | |
| 0-24 | 37 | 12.9 | 1,013 | 14.5 | 1,658 | 14.8 | 5,083 | 15.4 |
| 25-44 | 43 | 12.6 | 1,093 | 17.2 | 1,878 | 19.2 | 5,946 | 20.5 |
| 45-64 | 207 | 88.6 | 5,384 | 123.9 | 9,444 | 131.4 | 27,464 | 130.3 |
| 65-74 | 289 | 437.1 | 7,245 | 559.0 | 13,394 | 582.9 | 37,756 | 579.4 |
| **Total** | **576** | **61.1** | **14,736** | **80.6** | **26,374** | **85.0** | **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 Northern Sydney DGP were for cardiovascular diseases, with a rate of 53.0 deaths per 100,000 population, and cancer, 39.5 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 28.4 per 100,000 population and 13.5 per 100,000, respectively.

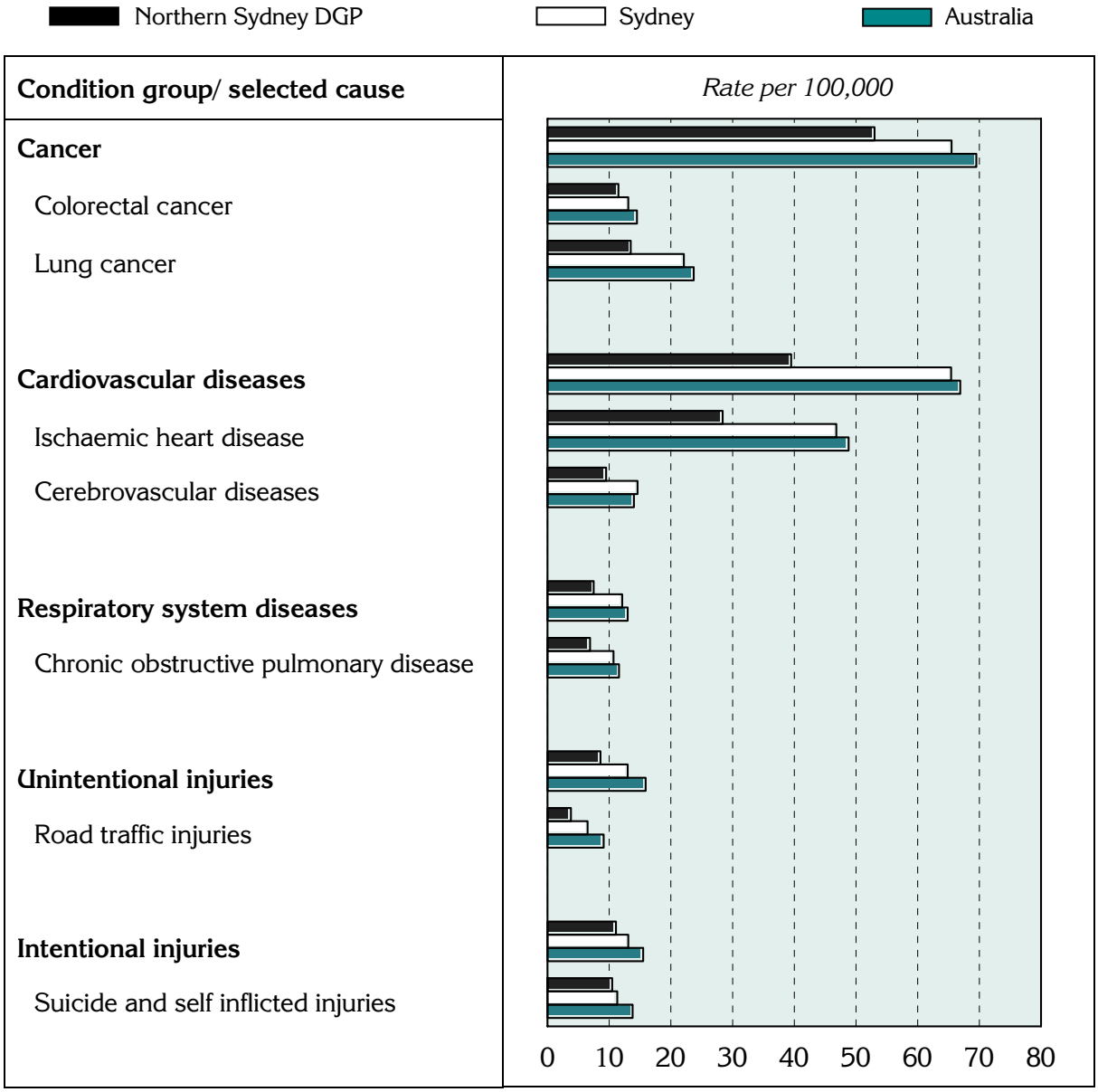
**Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Northern Sydney DGP, Sydney, New South Wales and Australia, 1997 to 2001**

| Condition group/ selected cause | Northern Sydney DGP | | Sydney | | New South Wales | | Australia | |
|---|---|---|---|---|---|---|---|---|
| | No. | Rate[1] | No. | Rate[1] | No. | Rate[1] | No. | Rate[1] |
| **Cancer** | **504** | **53.0** | **11,919** | **65.5** | **21,158** | **68.1** | **62,338** | **69.5** |
| Colorectal cancer | 109 | 11.5 | 2,382 | 13.1 | 4,318 | 13.9 | 13,008 | 14.5 |
| Lung cancer | 126 | 13.5 | 3,983 | 22.1 | 7,297 | 23.4 | 21,208 | 23.7 |
| **Cardiovascular diseases** | **369** | **39.5** | **11,824** | **65.4** | **21,925** | **70.3** | **59,945** | **66.9** |
| Ischaemic heart disease | 264 | 28.4 | 8,461 | 46.8 | 15,935 | 51.1 | 43,712 | 48.8 |
| Cerebrovascular diseases | 89 | 9.5 | 2,641 | 14.6 | 4,656 | 14.9 | 12,558 | 14.0 |
| **Respiratory system diseases** | **69** | **7.5** | **2,177** | **12.1** | **4,313** | **13.8** | **11,612** | **13.0** |
| Chronic obstructive pulmonary disease | 64 | 6.9 | 1,916 | 10.7 | 3,882 | 12.4 | 10,395 | 11.6 |
| **Unintentional injuries** | **86** | **8.6** | **2,513** | **13.0** | **4,540** | **15.0** | **14,224** | **15.9** |
| Road traffic injuries | 38 | 3.8 | 1,249 | 6.5 | 2,528 | 8.4 | 8,138 | 9.1 |
| **Intentional injuries** | **115** | **11.1** | **2,558** | **13.1** | **4,497** | **14.9** | **13,891** | **15.5** |
| Suicide and self inflicted injuries | 109 | 10.5 | 2,211 | 11.3 | 3,941 | 13.0 | 12,393 | 13.8 |

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

Rates in the Division were lower – in some cases markedly lower – than those for Sydney and Australia for all of the condition groups and selected causes (Figure 10).

**Figure 10: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Northern Sydney DGP, Sydney and Australia, 1997 to 2001**



# Notes on the data

## Data sources and limitations

### General

References to 'Sydney' relate to the Sydney 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 (ie. jobless families, people with health insurance): these areas are mapped with a pattern.

## Statistical geography of the Northern Sydney 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 the Northern Sydney Division, all of Lane Cove, Mosman, North Sydney and Willoughby lie within the Division, as do parts of Ku-ring-gai and Warringah (Table 14).

**Table 14: SLAs and population in Northern Sydney DGP, 2005 on 2001 boundaries**

| SLA code | SLA name | Per cent of the SLA's population in the Division* | Estimate of the SLA's 2005 population in the Division |
|---|---|---|---|
| 14500 | Ku-ring-gai | 19.6 | 21,302 |
| 14700 | Lane Cove | 100.0 | 32,326 |
| 15350 | Mosman | 100.0 | 28,363 |
| 15950 | North Sydney | 100.0 | 60,944 |
| 18000 | Warringah | 4.5 | 6,331 |
| 18250 | Willoughby | 100.0 | 35,812 |

* **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

Funding for these profiles was provided by the Population Health Division of the Department of Health and Ageing (DoHA).

# 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

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