Population health profile of the Osborne

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 Osborne Division of General Practice: supplement

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

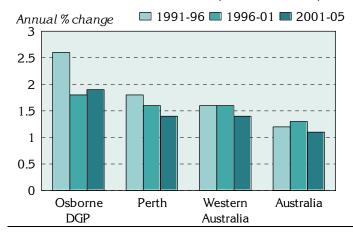
- Population [updated to June 2005]
- Additional socio-demographic indicators
- Unreferred attendances patient flow/ GP catchment
- Additional prevalence estimates: chronic diseases and risk factors combined
- Avoidable hospitalisations: hospital admissions resulting from ambulatory care sensitive conditions
- 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 Osborne Division had an Estimated Resident Population of 374,228 at 30 June 2005.

Figure 1: Annual population change, Osborne DGP, Perth, Western Australia and Australia, 1991 to 1996, 1996 to 2001 and 2001 to 2005



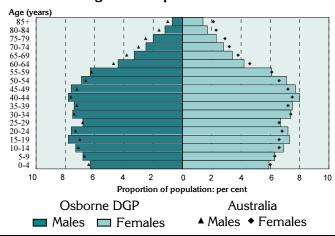
Over the five years from 1991 to 1996, the Division's population increased by 2.6% on average each year, well above the growth rates in Perth (1.8%) and Western Australia (1.6%). From 1996 to 2001, the annual percentage increase in the Division was 1.8%, again higher than in Perth and Western Australia (both 1.6%). The Division's growth rate from 2001 to 2005 (1.9%) continued at a higher level than in Perth and Western Australia (both 1.4%).

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

| Age group | Osborne | e DGP | Australia |
|-----------|---------|-------|------------------|
| (years) | No. | % | No. % |
| 0-14 | 74,031 | 19.8 | 3,978,221 19.6 |
| 15-24 | 55,907 | 14.9 | 2,819,834 13.9 |
| 25-44 | 110,491 | 29.5 | 5,878,107 28.9 |
| 45-64 | 93,887 | 25.1 | 4,984,446 24.5 |
| 65-74 | 22,393 | 6.0 | 1,398,831 6.9 |
| 75-84 | 13,574 | 3.6 | 954,143 4.7 |
| 85+ | 3,946 | 1.1 | 315,027 1.5 |
| Total | 374,228 | 100.0 | 20,328,609 100.0 |

As shown in the accompanying table and the age-sex pyramid (Figure 2), the Osborne DGP had more young people aged 15 to 24 years (14.9%), 25 to 44 year olds (29.5%), and 45 to 64 year olds (25.1%) than Australia as a whole (with 13.9%, 28.9% and 24.5%, respectively) (Table 1). Conversely, the proportions of the Division's population aged 65 years and over were lower compared to Australia.

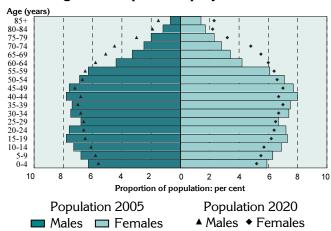
Figure 2: Population in Osborne DGP and Australia, by age and sex, 2005



The age distribution of the Division's population is similar to that for Australia overall. The most notable differences are:

- at younger ages marginally more males and females at ages 10 to 24 years;
- from 35 to 54 years relatively more males and females; and
- at older ages relatively fewer males and females at ages 60 years and over.

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



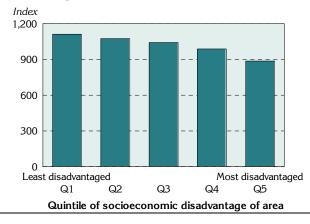
The population projections for the Division show a number of changes in age distribution, with the 2020 population projected to have:

- at younger ages relatively fewer children, young people and young adults, aged 0 to 24 years;
- from 30 to 54 years relatively fewer females and males; and
- from 55 years onwards relatively more males and females

Additional socio-demographic indicators

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



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

The Osborne DGP has an index score of 1021, above the score for Australia of 1000: this score varies across the Division, from a low of 887 in the most disadvantaged areas to 1111 in the least disadvantaged areas.

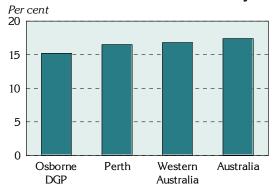
Note: each 'quintile' comprises approximately 20% of the population of the Division.

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 Osborne DGP (15.2%), compared to Perth as a whole (16.5%) (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 slightly higher proportion of people with private health insurance (43.4%), compared to Perth (42.7%) (Figure 5, Table 2).

Figure 5: Socio-demographic indicators, Osborne DGP, Perth, Western Australia and Australia, 2001

Jobless families with children under 15 years old



Private health insurance, 30 June

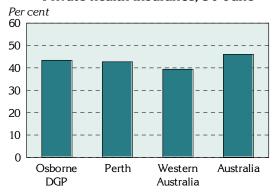


Table 2: Socio-demographic indicators, Osborne DGP, Perth, Western Australia and Australia, 2001

| Indicator | Osborne DGP | | Pertl | Perth | | ıstralia | Australia | |
|---|-------------|------|---------|-------|---------|----------|-----------|------|
| | No. | % | No. | % | No. | % | No. | % |
| Jobless families with children under 15 years old | 5,846 | 15.2 | 24,254 | 16.5 | 34,396 | 16.8 | 357,563 | 17.4 |
| Private health insurance (30 June) | 143,402 | 43.4 | 559,922 | 42.7 | 708,743 | 39.4 | 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, Osborne DGP, 2001



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





GP services to residents of the Osborne 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 four fifths (82.0%) of all unreferred attendances to residents of Osborne DGP were provided in the Division (ie. by a GP with a provider number in the Division): this represented 1,416,795 GP unreferred attendances (Table 3). A further 7.4% of unreferred attendances to residents were provided by GPs with a provider number in Perth & Hills DGP, with 7.2% provided by GPs in GP Coastal DGP.

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

| Division | | Unreferred a | ttendances |
|----------|------------------------|--------------|-----------------------|
| Number | Name | No. | % ³ |
| 603 | Osborne DGP | 1,416,795 | 82.0 |
| 601 | Perth & Hills DGP | 127,334 | 7.4 |
| 602 | GP Coastal DGP | 124,269 | 7.2 |
| 604 | Canning DGP | 18,563 | 1.1 |
| 605 | Fremantle Regional DGP | 10,547 | 0.6 |
| 607 | GP Down South DGP | 2,982 | 0.2 |
| Other | | 28,124 | 1.6 |
| Total | | 1,728,614 | 100.0 |

¹ Based on address in Medicare records

More than four fifths (83.8%) of unreferred attendances provided by GPs with a provider number in Osborne DGP were also to people living in the Division (ie. their Medicare address was in the Division) (Table 4). A further 8.5% of unreferred attendances by GPs in the Division were to people living in Perth & Hills DGP, with 3.0% to residents of GP Coastal DGP.

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

| Division | | Unreferred a | ttendances |
|----------|------------------------|--------------|------------|
| Number | Name | No. | %³ |
| 603 | Osborne DGP | 1,416,795 | 83.8 |
| 601 | Perth & Hills DGP | 143,975 | 8.5 |
| 602 | GP Coastal DGP | 50,232 | 3.0 |
| 604 | Canning DGP | 20,119 | 1.2 |
| 605 | Fremantle Regional DGP | 10,328 | 0.6 |
| 615 | Central Wheatbelt DGP | 10,165 | 0.6 |
| 607 | GP Down South DGP | 6,281 | 0.4 |
| Other | | 32,316 | 2.2 |
| Total | | 1.690.211 | 100.0 |

¹ Division of GP based on provider number

² Division of GP based on provider number

³ Proportion of all unreferred attendances of patients with an address in Division 603 by Division in which attendance occurred

² Based on address in Medicare records

³ Proportion of all unreferred attendances to GPs with a provider number in Division 603 by Division of patient address

Additional prevalence estimates: chronic diseases and risk factors combined

Please refer to the earlier *Population health profile of the Osborne 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 Osborne DGP who had asthma and were smokers, compared to Perth or Australia as a whole (Figure 6, Table 5): that is, the prevalence rates per 1,000 population were lower. The number of people in Osborne DGP who had type 2 diabetes and were overweight/ obese was consistent with that in Perth and Australia.

Figure 6: Estimates of selected chronic diseases and risk factors, Osborne DGP, Perth and Australia, 2001

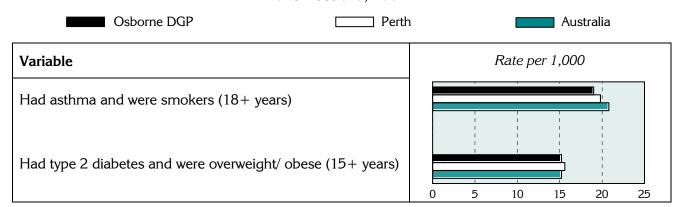


Table 5: Estimates of selected chronic diseases and risk factors, Osborne DGP, Perth, Western Australia and Australia, 2001

| Variable | Osborne DGP | | Per | Perth | | Western Australia | | Australia | |
|---|-------------|-------------------|------------------|-------------------|--------|-------------------|---------|-------------------|--|
| | No.1 | Rate ² | No. ¹ | Rate ² | No.1 | Rate ² | No.1 | Rate ¹ | |
| Had asthma & smoked ³ | 6,516 | 19.0 | 27,686 | 19.8 | 38,731 | 21.1 | 397,734 | 20.8 | |
| Had type 2 diabetes & were overweight/ obese ⁴ | 4,454 | 15.2 | 19,421 | 15.6 | 25,290 | 15.0 | 283,176 | 15.2 | |

¹ No. is a weighted estimate of the number of people in Osborne 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.

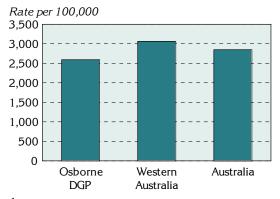
In 2001 to 2002, the 8,085 admissions from ambulatory care sensitive (ACS) conditions accounted for 7.0% of all admissions in the Osborne DGP (Table 6, Figure 7), markedly below the levels in Western Australia (8.8) and Australia (8.7%).

Table 6: Avoidable 1 and unavoidable hospitalisations, Osborne DGP, Western Australia, and Australia, 2001/02

| Category | Osborne DGP | | | Wes | tern Austral | lia | Australia | | |
|------------------------|-------------|-------------------|-------|---------|-------------------|-------|-----------|-------------------|-------|
| • | No. | Rate ² | % | No. | Rate ² | % | No. | Rate ² | % |
| Avoidable ¹ | 8,085 | 2,591.0 | 7.0 | 55,102 | 3,062.4 | 8.8 | 552,786 | 2,847.5 | 8.7 |
| Unavoidable | 107,589 | 32,990.2 | 93.0 | 568,402 | 31,010.0 | 91.2 | 5,818,199 | 29,970.7 | 91.3 |
| Total | 115,674 | 35,602.7 | 100.0 | 623,504 | 34,070.5 | 100.0 | 6,370,985 | 32,818.2 | 100.0 |

¹ Admissions resulting from ACS conditions

Figure 7: Avoidable hospitalisations¹, Osborne DGP, Western Australia and Australia, 2001/02



The rate of avoidable hospitalisations in Osborne DGP is markedly lower, a rate of 2,591.0 admissions per 100,000 population, compared to both Western Australia (a rate of 3,062.4) and Australia (2,847.5).

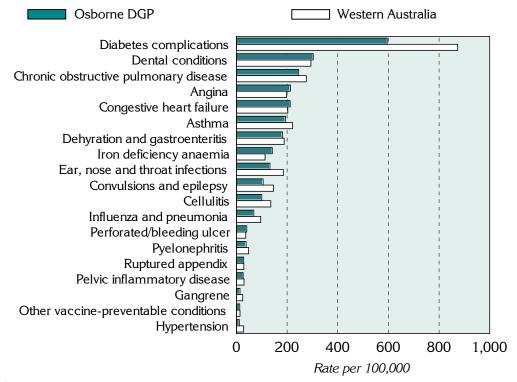
Diabetes complications, dental conditions, and chronic obstructive pulmonary disease were the three conditions with the highest rates of avoidable hospitalisations in the Osborne DGP (Figure 8, Table 7).

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. The majority 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.

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

¹ Admissions resulting from ACS conditions

Figure 8: Avoidable hospitalisations¹ by condition, Osborne DGP and Western Australia, 2001/02



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

Table 7: Avoidable hospitalisations¹ by condition, Osborne DGP, Western Australia and Australia, 2001/02

| Sub-category/ condition | Osborne | e DGP | Western A | Australia | Austr | alia |
|---|---------|-------------------|-----------|-------------------|---------|-------------------|
| <u>-</u> | No. | Rate ² | No. | Rate ² | No. | Rate ² |
| Vaccine-preventable | 263 | 82.5 | 2,018 | 110.7 | 16,573 | 85.4 |
| Influenza and pneumonia | 217 | 69.2 | 1,743 | 96.2 | 13,021 | 67.1 |
| Other vaccine preventable | 46 | 13.3 | 275 | 14.5 | 3,552 | 18.3 |
| Chronic ³ | 4,805 | 1,614.8 | 33,628 | 1,915.6 | 352,545 | 1,816 |
| Diabetes complications | 1,783 | 595.3 | 15,323 | 873.6 | 141,345 | 728.1 |
| Iron deficiency anaemia | 436 | 141.7 | 2,009 | 113.4 | 16,451 | 84.7 |
| Hypertension | 34 | 11.4 | 510 | 29.0 | 6,354 | 32.7 |
| Congestive heart failure | 561 | 212.5 | 3,400 | 202.9 | 42,447 | 218.6 |
| Angina | 625 | 213.6 | 3,452 | 198.5 | 49,963 | 257.4 |
| Chronic obstructive pulmonary disease | 698 | 246.0 | 4,707 | 275.9 | 54,853 | 282.6 |
| Asthma | 668 | 194.3 | 4,227 | 222.3 | 41,009 | 211.3 |
| Acute | 3,274 | 973.8 | 21,021 | 1,121.4 | 200,913 | 1,035 |
| Dehydration and gastroenteritis | 590 | 182.5 | 3,443 | 188.7 | 37,766 | 194.5 |
| Convulsions and epilepsy | 360 | 105.6 | 2,779 | 146.7 | 31,137 | 160.4 |
| Ear, nose and throat infections | 457 | 132.5 | 3,550 | 185.3 | 32,075 | 165.2 |
| Dental conditions | 1,053 | 303.3 | 5,623 | 294.3 | 43,667 | 224.9 |
| Perforated/bleeding ulcer | 120 | 41.4 | 645 | 37.1 | 5,795 | 29.9 |
| Ruptured appendix | 102 | 28.8 | 566 | 29.4 | 3,866 | 19.9 |
| Pyelonephritis | 132 | 38.3 | 914 | 48.7 | 7,386 | 38.0 |
| Pelvic inflammatory disease | 97 | 26.8 | 577 | 30.2 | 6,547 | 33.7 |
| Cellulitis | 321 | 100.2 | 2,484 | 135.9 | 28,204 | 145.3 |
| Gangrene | 42 | 14.4 | 440 | 25.1 | 4,470 | 23.0 |
| Total avoidable hospitalisations ⁴ | 8,085 | 2,591.0 | 55,102 | 3,062.4 | 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.

Over two thirds (69.8%) of all deaths in Osborne DGP at ages 0 to 74 years over the period 1997 to 2001 are considered to be avoidable, marginally lower than the proportion for Perth (70.6%) (Table 8). However, the rate in the Division is notably lower than that in Perth, a differential of 0.86.

Deaths amenable to health care (amenable mortality, a subset of avoidable mortality) accounted for 27.7% of all deaths at ages 0 to 74 years in Osborne DGP, compared to 28.1% in Perth.

Table 8: Avoidable and unavoidable mortality (0 to 74 years) by area, Osborne DGP, Perth, Western Australia and Australia, 1997 to 2001

| Mortality category | Osborne DGP | | Per | th | Western A | Australia | Austr | alia |
|--------------------|-------------|-------------------|---------|-------------------|-----------|-------------------|----------|-------------------|
| | No. | Rate ¹ | No. | Rate ¹ | No. | Rate ¹ | No. | Rate ¹ |
| Avoidable | 2,382 | 163.2 | 11,480 | 189.1 | 16,602 | 201.0 | 189,845 | 211.8 |
| % of total | 69.8 | •• | 70.6 | •• | 71.2 | •• | 71.5 | •• |
| (Amenable) | (944) | (65.3) | (4,574) | (75.9) | (6,517) | (79.6) | (76,249) | (85.1) |
| (% of total) | (27.7) | () | (28.1) | () | (28.0) | () | (28.7) | () |
| Unavoidable | 1,029 | 71.1 | 4,783 | 79.3 | 6,708 | 81.6 | 75,582 | 84.3 |
| % of total | 30.2 | •• | 29.4 | •• | 28.8 | •• | 28.5 | •• |
| Total mortality | 3,411 | 234.3 | 16,263 | 268.4 | 23,310 | 282.6 | 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. Osborne DGP's rate of avoidable mortality for males was 207.1 deaths per 100,000 males, higher than the rate of 118.7 for females. Similarly, the rate of amenable mortality for males in the Division was higher, 71.0, compared to 59.5 for females, a rate ratio of 1.19 (Figure 9, Table 9).

Figure 9: Avoidable and amenable mortality by sex (0 to 74 years), Osborne DGP, Perth, Western Australia and Australia, 1997 to 2001

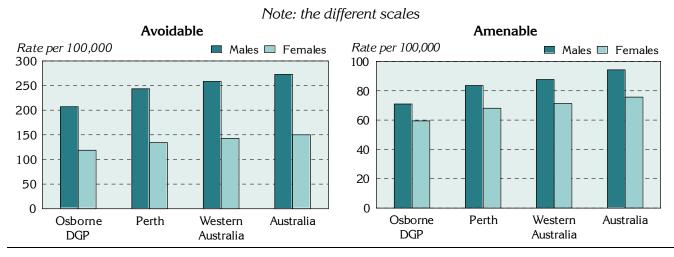


Table 9: Avoidable and amenable mortality (0 to 74 years) by sex, Osborne DGP, Perth, Western Australia and Australia, 1997 to 2001

| Mortality category | Osborn | e DGP | Per | Perth | | Australia | Austr | alia |
|-----------------------------|--------|-------------------|--------|-------------------|--------|-------------------|---------|-------------------|
| and sex | No. | Rate ¹ | No. | Rate ¹ | No. | Rate ¹ | No. | Rate ¹ |
| Avoidable | | | | | | | | |
| Males | 1,517 | 207.1 | 7,424 | 243.4 | 10,850 | 258.3 | 123,026 | 272.6 |
| Females | 864 | 118.7 | 4,056 | 134.1 | 5,752 | 142.9 | 66,819 | 150.1 |
| Total | 2,382 | 163.2 | 11,480 | 189.1 | 16,602 | 201.0 | 189,845 | 211.8 |
| Rate ratio-M:F ² | •• | 1.74** | •• | 1.82** | •• | 1.81** | | 1.82** |
| Amenable | | | | | | | | |
| Males | 511 | 71.0 | 2,516 | 83.6 | 3,646 | 87.7 | 42,568 | 94.3 |
| Females | 433 | 59.5 | 2,058 | 68.1 | 2,871 | 71.3 | 33,681 | 75.7 |
| Total | 944 | 65.3 | 4,574 | 75.9 | 6,517 | 79.6 | 76,249 | 85.1 |
| Rate ratio-M:F ² | •• | 1.19** | •• | 1.23** | •• | 1.23** | •• | 1.25** |

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

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 Osborne DGP, Perth, Western Australia 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 70.1% of total YLL (0 to 74 years) for Osborne DGP, marginally lower than the 71.0% for Perth. The proportion of YLL from amenable mortality of 26.8% for Osborne DGP was also marginally lower than the 27.2% for Perth.

Table 10: Years of life lost from avoidable mortality (0 to 74 years), Osborne DGP, Perth, Western Australia and Australia, 1997 to 2001

| Mortality category | Osborne DGP | | Pert | th Western Au | | ustralia Austra | | alia |
|--------------------|-------------|--------|----------|---------------|-----------|-----------------|-------------|--------|
| | No. | % of | No. | % of | No. | % of | No. | % of |
| | | total | | total | | total | | total |
| Avoidable | 43,346 | 70.1 | 204,435 | 71.0 | 300,008 | 71.7 | 3,327,375 | 71.9 |
| (Amenable) | (16,562) | (26.8) | (78,352) | (27.2) | (113,010) | (27.0) | (1,298,430) | (28.0) |
| Unavoidable | 18,493 | 29.9 | 83,597 | 29.0 | 118,618 | 28.3 | 1,303,289 | 28.1 |
| Total | 61,839 | 100.0 | 288,033 | 100.0 | 418,625 | 100.0 | 4,630,664 | 100.0 |

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

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 1,055.8 deaths per 100,000 population in the Osborne 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 225.8 in the Osborne Division.

Table 11: Avoidable and amenable mortality by age, Osborne DGP, Perth, Western Australia and Australia, 1997 to 2001

| Mortality category | Osborn | e DGP | Per | th | Western A | Australia | Aust | ralia |
|--------------------|--------|-------------------|--------|-------------------|-----------|-------------------|---------|-------------------|
| and age (years) | No. | Rate ¹ | No. | Rate ¹ | No. | Rate ¹ | No. | Rate ¹ |
| Avoidable | | | | | | | | |
| 0-14 | 86 | 24.7 | 352 | 25.9 | 548 | 27.9 | 5,669 | 28.8 |
| 15-24 | 119 | 45.8 | 517 | 49.7 | 826 | 60.7 | 7,045 | 52.8 |
| 25-44 | 345 | 65.4 | 1,596 | 75.9 | 2,479 | 85.3 | 24,356 | 83.9 |
| 45-64 | 833 | 225.8 | 3,828 | 257.4 | 5,546 | 275.2 | 64,282 | 304.9 |
| 65-74 | 1,000 | 1,055.8 | 5,187 | 1254.8 | 7,203 | 1282.7 | 88,493 | 1,358.1 |
| Total | 2,382 | 163.2 | 11,480 | 189.1 | 16,602 | 201.0 | 189,845 | 211.8 |
| Amenable | | | | | | | | |
| 0-24 | 71 | 12.1 | 301 | 13.0 | 454 | 13.8 | 5,083 | 15.4 |
| 25-44 | 82 | 15.3 | 371 | 17.6 | 594 | 20.5 | 5,946 | 20.5 |
| 45-64 | 362 | 98.2 | 1,675 | 112.7 | 2,381 | 118.5 | 27,464 | 130.3 |
| 65-74 | 429 | 452.4 | 2,228 | 538.5 | 3,088 | 550.9 | 37,756 | 579.4 |
| Total | 944 | 65.3 | 4,574 | 75.9 | 6,517 | 79.6 | 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 Osborne DGP were for cancer, with a rate of 61.8 deaths per 100,000 population, and cardiovascular diseases, 47.2 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 35.2 per 100,000 population and 20.8 per 100,000, respectively.

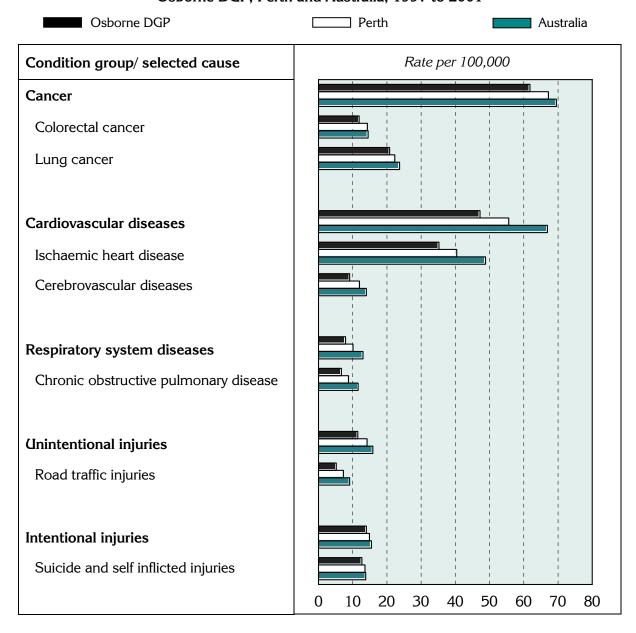
Table 12: Avoidable mortality (0 to 74 years) by major condition group and selected cause, Osborne DGP, Perth, Western Australia and Australia, 1997 to 2001

| Condition group/ | Osborn | e DGP | Per | th | Western A | Australia | Austr | alia |
|---------------------------------------|--------|-------------------|-------|-------------------|-----------|-------------------|--------|-------------------|
| selected cause | No. | Rate ¹ | No. | Rate ¹ | No. | Rate ¹ | No. | Rate ¹ |
| Cancer | 892 | 61.8 | 4,043 | 67.2 | 5,531 | 67.8 | 62,338 | 69.5 |
| Colorectal cancer | 170 | 11.9 | 854 | 14.3 | 1,189 | 14.6 | 13,008 | 14.5 |
| Lung cancer | 294 | 20.8 | 1,327 | 22.3 | 1,842 | 22.8 | 21,208 | 23.7 |
| Cardiovascular diseases | 661 | 47.2 | 3,294 | 55.6 | 4,750 | 58.9 | 59,945 | 66.9 |
| Ischaemic heart disease | 493 | 35.2 | 2,394 | 40.4 | 3,469 | 42.9 | 43,712 | 48.8 |
| Cerebrovascular diseases | 127 | 9.1 | 711 | 12.0 | 1,000 | 12.5 | 12,558 | 14.0 |
| Respiratory system diseases | 108 | 7.9 | 593 | 10.1 | 871 | 11.0 | 11,612 | 13.0 |
| Chronic obstructive pulmonary disease | 90 | 6.7 | 510 | 8.8 | 748 | 9.5 | 10,395 | 11.6 |
| Unintentional injuries | 186 | 11.5 | 923 | 14.2 | 1,549 | 17.5 | 14,224 | 15.9 |
| Road traffic injuries | 86 | 5.2 | 479 | 7.3 | 918 | 10.3 | 8,138 | 9.1 |
| Intentional injuries | 227 | 14.0 | 968 | 14.9 | 1,412 | 15.9 | 13,891 | 15.5 |
| Suicide and self inflicted injuries | 206 | 12.7 | 884 | 13.6 | 1,270 | 14.3 | 12,393 | 13.8 |

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

Rates in the Division were below those for Perth and Australia for all condition groups and selected causes (Figure 10).

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



Notes on the data

Data sources and limitations

General

References to 'Perth' relate to the Perth 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 Osborne 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 Local Government Areas (LGAs) have been split into SLAs. For example, the LGA of Wanneroo has three SLAs – North-East and North-West (all of which are in this Division) and South (a majority in the Division). These SLAs, and all or parts of the SLAs listed in Table 14 comprise the Division.

Table 14: SLAs and population in Osborne 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 |
|-------------|-----------------------|---|---|
| 54171 | Joondalup - North | 100.0 | 51,645 |
| 54174 | Joondalup - South | 100.0 | 105,487 |
| 57914 | Stirling - Central | 75.0 | 76,222 |
| 57915 | Stirling - Coastal | 61.6 | 39,708 |
| 58570 | Vincent | 11.1 | 2,977 |
| 58761 | Wanneroo - North-East | 100.0 | 28,862 |
| 58764 | Wanneroo - North-West | 100.0 | 36,628 |
| 58767 | Wanneroo - South | 78.2 | 32,698 |

^{*} 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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