

## Fact sheet number 1: Australia

Social Health Atlas

PHIDU

### Children

#### Life circumstances

##### Distribution

*Volume 1: Australia, page 22 -25*

- Children aged from 0 to 4 years make up 7.1% of the Australian population. Adelaide (6.4%) had the lowest proportion of children in this age group while Darwin (8.1%) had the highest.
- There were more young children in non-metropolitan areas than in the capital cities. The highest proportions were in the non-metropolitan areas of the Northern Territory (9.0%) and Western Australia (8.0%) and the lowest were in New South Wales (7.4), Queensland (7.4) and South Australia (7.4).
- There are increasing proportions of young children with increasing remoteness.
- Areas in the capital cities with high proportions of young children also have high proportions of:
  - female sole parent pensioners ( $r=0.58$ )
  - people who left school at age 15 or less or did not go to school ( $r=0.52$ )

These areas also have fewer people in high status occupations (professionals etc.) ( $r=-0.61$ ) (page 353-354)

##### Infant Deaths

*Volume 1: Australia, page 134 -137*

- Overall, the infant death rate in Australia has declined by one third from 1985-89 to 1992-95, largely as a result of a decline in deaths from sudden infant death syndrome.
- Darwin has the highest infant death rate (nearly twice the capital city average. at 10.3 infant deaths/1,000 live births) and was the only capital city to experience a rise over the above period. Adelaide had the lowest rate (5.2/1,000 live births)
- Except in Queensland and Tasmania, infant death rates were higher in the non-metropolitan areas than in the capital cities. The Northern Territory had the highest infant death rates in the non-metropolitan areas (16.3/1,000) and Victoria had the lowest (5.4/1,000).
- Infant death rates increased with increasing remoteness.
- Areas in the highest socioeconomic status quintile had the lowest infant death rate, while those in the lowest quintile had the highest. (page 365)

##### Children in families receiving income support

*Volume 1: Australia, page 100-103*

- In 1986, 43.5% of all children in Australia under 16 years of age were living in families receiving income support.
- This proportion has increased across Australia over the period from 1989 to 1996, from 7.9% to 9.7% in the capital cities and from 7.6% to 10.0% in non-metropolitan areas.
- The highest proportions in the capital cities were in Adelaide (45.6%) and Tasmania (45.5%).
- Rates were higher in non-metropolitan areas than in the capital cities. The highest rates were in the non-metropolitan areas of New South Wales (54.1%) and the lowest were in Victoria (49.1%)

## Fact sheet number 1: Australia

Social Health Atlas

PHIDU

- Areas in the capital cities with high proportions of children in families receiving income support are socioeconomically disadvantaged, as measured by the IRSD ( $r=0.83$ ). They also have a higher proportion of:
  - unskilled and semi-skilled workers ( $r=0.86$ )
  - Aborigines and Torres Strait Islanders ( $r=0.63$ )
  - people who left school at age 15 or less or did not go to school ( $r=0.54$ )
  - public rental housing (0.54)

These areas also have fewer high income families ( $r=-0.85$ ) and a lower female labour force participation ( $r=-0.63$ ) (*page 353-354*)

- Areas in the capital cities with high proportions of children in families receiving income support are also significantly correlated with poor health. These areas have high rates of:
  - people with low physical component scores ( $r=-0.76$ )
  - people reporting their health as fair/poor ( $r=0.70$ )
  - deaths from respiratory diseases ( $r=0.64$ )
  - deaths from circulatory diseases ( $r=0.56$ )
  - deaths from lung cancer ( $r=0.54$ )
  - public hospital admissions ( $r=0.54$ ) (but a lower rate of private hospital admissions ( $r=0.55$ ))
  - GP visits (0.71 males, 0.72 females) (*page 353-354*)

The poorer health people in these areas may be influenced by the presence of people on a disability support pension.

## Health

### Immunisation

*Volume 1: Australia, page 322-325*

- There is little variation in immunisation rates for children at 12 months of age in capital cities with an overall coverage of 82.5 % at December 1998.
- Immunisation rates were lower in the non-metropolitan areas than in the capital cities of South Australia (83.6%), Western Australia (80.6%) and the Northern Territory (62.8%, and the lowest rates).
- Lower rates of immunisation were found in Remote and Very Remote areas under the Accessibility/Remoteness Index of Australia.
- Areas in the capital cities with low immunisation rates also had relatively fewer dwellings with motor vehicles ( $r=-0.53$ ). (*page 353-354*)

### Respiratory system disease admissions of children aged 0 to 4

*Volume 1: Australia, page 258-261*

- The highest rate of admission in a capital city was in Adelaide (with a standardised admission ratio (SAR) of 118) and the lowest in Melbourne (68).
- SARs in the capital cities have increased (relative to the Australian rates) from a ratio of 80 in 1989 to 89 in 1995/96.
- Except in Tasmania, SARs were higher in non-metropolitan areas than in the capital cities. The highest rates were in the non-metropolitan areas of the Northern Territory (212), Western Australia (165), South Australia and New South Wales (132) and the lowest was in Tasmania (68).
- SARs for respiratory system diseases increase with increasing remoteness.
- SARs for respiratory system diseases increase with decreasing socioeconomic status. (*page 364*)

## Fact sheet number 1: Australia

Social Health Atlas

PHIDU

### Tonsillectomy admissions

*Volume 1: Australia, page 282-285*

- The largest number of tonsillectomies and adenoidectomies are performed on the 5 to 9 year age group, with over 750 admissions per 100,000 children.
- The rate of admission for these procedures varies widely between the capital cities, with the least performed in Canberra (an SAR of 65) and the most performed in Adelaide (136 - more than double the rate in Canberra).
- These procedures also vary widely in non-metropolitan areas, with the fewest performed in the non-metropolitan areas of the Northern Territory (35) and the most in South Australia (141).
- Admission rates decrease with increasing remoteness.
- Areas in the highest socioeconomic status quintile had the fewest admissions for tonsillectomies or adenoidectomies. (*page 353-354*)

### Tonsillectomy and adenoidectomy

Surgical removal of the tonsils (tonsillectomy), with or without removal of the adenoids (adenoidectomy) is one of the commonest major operations carried out on children. Increasingly, it is performed on adults who in the past would almost certainly have had their tonsils removed in childhood as a matter of routine. However, the procedure is not without risk - that of an associated general anaesthetic and those specific to the operation, for example, bleeding in the immediate period post-operatively or up to 2 weeks later, as a result of infection (Burton et al. 1998). Tonsillectomy is most frequently carried out for recurrent throat infection, but there is no strong evidence to guide a practitioner about the clinical indications for surgery in adults or children (Burton et al. 1998). Another review concluded that the effectiveness of tonsillectomy for chronic or recurrent acute tonsillitis needed to be considered in the light of its adverse effects (Marshall 1998).

There appears to be considerable variation in surgical rates and patterns of practice for tonsillectomies as evidenced by the geographical differences in intervention rates across regions in Australia. \* Patterns of geographic variation have also been observed in parts of Canada, the USA and Scotland (Blair et al. 1996, Rafuse 1996). Experience in these countries has shown that, with the collaboration of the health practitioners concerned, it is possible to reduce unexplained differences in rates by the use of feedback to practitioners about geographical differences, the development of clinical practice guidelines and public and professional education (Rafuse 1996).

#### References:

- Blair RL, McKerrow WS, Carter NW, Fenton A 1996. The Scottish tonsillectomy audit. The Audit Sub-Committee of the Scottish Otolaryngological Society. *Journal of Laryngology & Otology* – 110(Suppl. 20):1-25.
- Burton MJ, Towler B, Glasziou P 1998. Tonsillectomy versus non-surgical treatment for chronic/recurrent acute tonsillitis. *Cochrane Library*: CD001802.
- Marshall T 1998. A review of tonsillectomy for recurrent throat infection. *British Journal of General Practice* 48(431):1331-5.
- Rafuse J 1996. Education, practice reviews needed to reduce surgical intervention, Quebec report. *Canadian Medical Journal* 155(4):463-4.

## Fact sheet number 1: Australia

Social Health Atlas

PHIDU

### Myringotomy admissions

*Volume 1: Australia, page 286-289*

- The largest number of myringotomies (tubes inserted into the eardrum or tympanic membrane) are performed on the 0 to 9 year age group, in the capital cities and other major urban centres.
- These procedures vary widely between the capital cities, with the least performed in Canberra (standardised admission ratio 59) and the most performed in Adelaide (205 – more than twice the number expected from the Australian rates).
- These procedures vary widely in non-metropolitan areas with the fewest performed in the non-metropolitan areas of the Northern Territory (44) and Queensland (59) and the most in South Australia (163).
- Admission rates decrease with increasing remoteness.
- Admission rates increase with increasing socioeconomic status.
- Areas with high rates of admissions for a myringotomy also had higher rates of private hospital admissions ( $r=0.59$ ). (*page 353-354*)

### Myringotomy

Otitis media with effusion, or 'glue ear' is characterised by an accumulation of fluid in the middle ear. It is very common in children and is the commonest cause of acquired hearing loss in childhood. A myringotomy (incision into the eardrum, or tympanic membrane) is usually performed to relieve pressure and allow for drainage of fluid from the middle ear. Ventilation is maintained by putting a small tube (or grommet) into the incision. 'Glue ear' often resolves spontaneously, with return to normal function within a few months.

Opinions regarding the risks and benefits of myringotomy vary greatly. The appropriate indications for insertion of grommets remain unclear (Bluestone 1994). A considerable variation in the frequency of the operation is seen between different countries. For example, the annual rate per 1000 children of 0-14 years is about 5 in England and 25 in Denmark (with the prevalence of the disease being similar in the two countries). Two high quality systematic reviews have been undertaken within the last eight years, but the controversy about the indication for using grommets is unresolved (Stool 1994). The authors suggest that insertion of grommets alone or in combination with adenoidectomy is effective in restoring hearing, but on the other hand, there were doubts whether the current high levels of surgery were necessary.

#### References:

Stool SE, Berg AO, Berman S, Carney CJ, Cooley JR, Culpepper L, et al. Otitis media with effusion in young children. Clinical practice guidelines no. 12, AHCPR Publication No. 94-0622. Rockville (MD): Agency for Health Care Policy and Research, Public Health Service, U.S. Department of Health and Human Services, 1994.