

## non-Hodgkin lymphoma

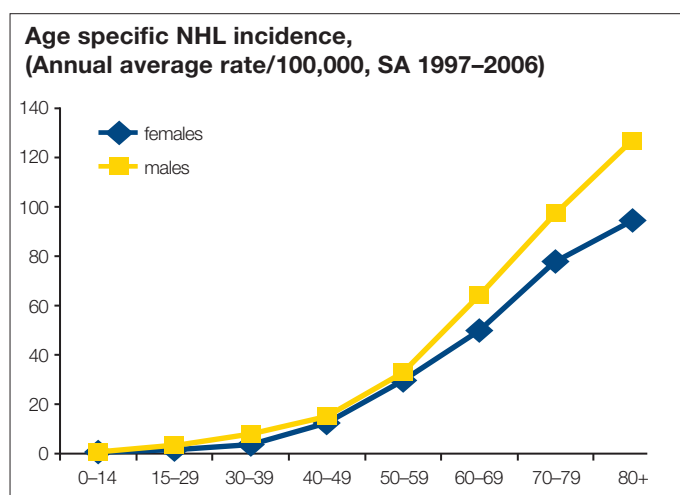
South Australia 2006 figures	males	females	total
number of cases	221	160	381
number of deaths	78	71	149
incidence/100,000 (ASR* Aust 2001 population)	26.6	16.6	21.1
mortality/100,000 (ASR* Aust 2001 population)	9.4	6.3	7.7
risk of developing non-Hodgkin lymphoma (by age 75 years)	1 in 54	1 in 75	1 in 63

\*ASR – Age Standardised Rate

## Patterns in incidence and mortality

### Age

The incidence of non-Hodgkin lymphoma (NHL) increases with increasing age. The highest incidence is among people aged 80 years and over.



### Gender

Males are slightly more likely than females to be diagnosed with lymphoma in South Australia. This pattern has been observed in other populations.

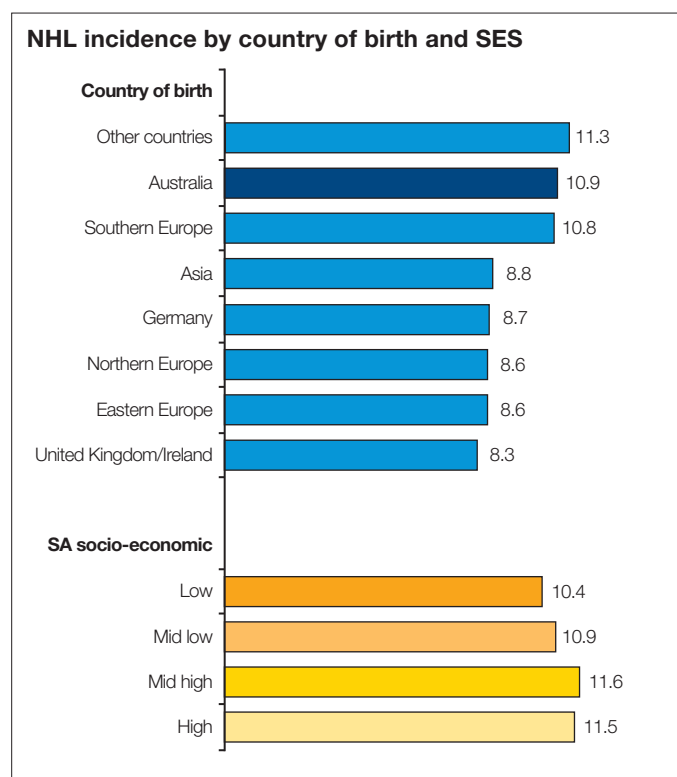
### Country of birth

Within South Australia, the incidence of these cancers was almost 20% lower among the overseas born than Australian born during 1977–2000. Residents born in Eastern Europe and the United Kingdom/Ireland contributed to lower rates in the overseas born.

### SES/region

Although an upper socio-economic gradient was suggested for these cancers in South Australia in 1977–2001, the difference could have been due to chance.

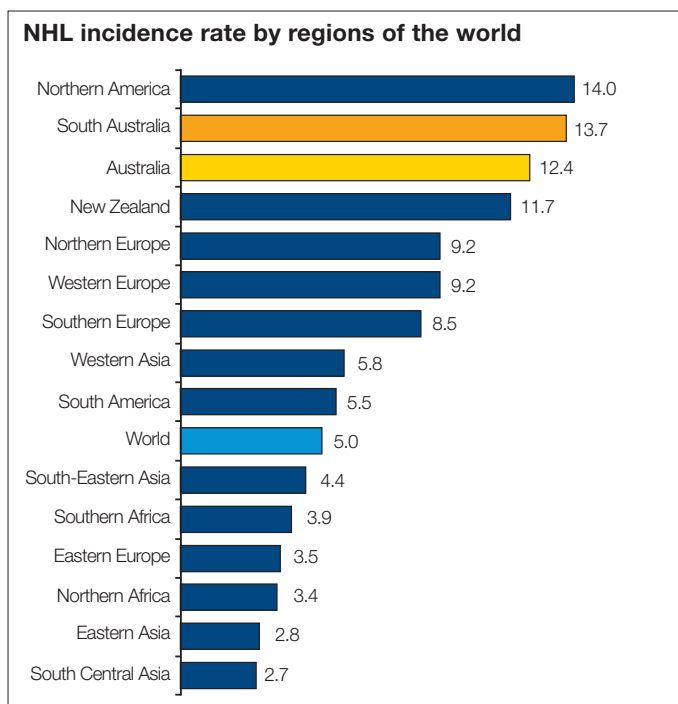
Meanwhile, Adelaide had an incidence about 12% higher than in country regions in 1977–2001. In particular, low rates were suggested for the Far North and Flinders Ranges.



(annual rate/100,000 – SA 1977–2001 – ASR World Pop.)

## Global comparisons

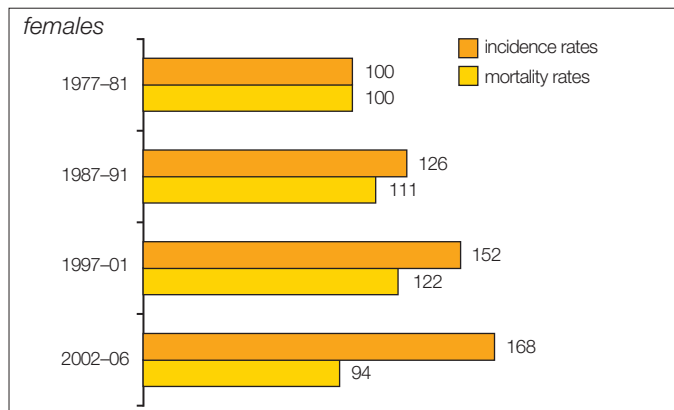
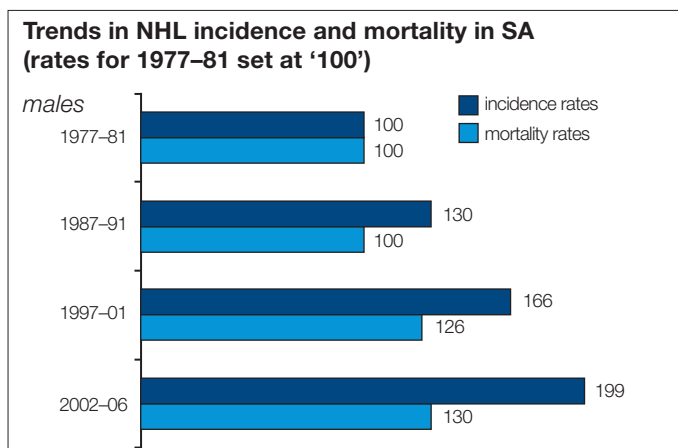
The incidence of these cancers is high in South Australia by international standards, exceeding rates reported for Africa, Asia, Europe, Central and South America, the United Kingdom/Ireland and New Zealand. The reason for the relatively high rates is not known.



(Rate/100,000 ASR World Pop. Globocan 2002)

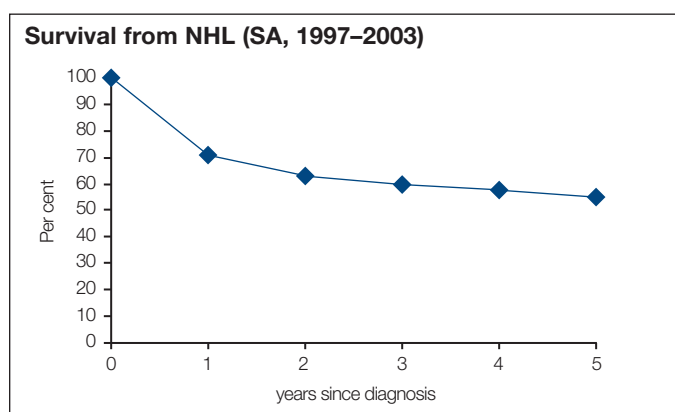
## Trends

Incidence rates have increased by about 70% between 1977–81 and 2002–2006, for females and doubled for males. This is mostly due to increases for diffuse non-Hodgkin's lymphomas. Mortality rates for males have also increased but to a lesser extent than incidence, due to improvements in case survival. There is a suggestion that mortality rates have decreased for females in the most recent period (2002–2006). Increases in incidence have been reported for many western populations. HIV infection has contributed, plus immunosuppression associated with organ transplantation. These factors would explain only a small part of the overall increase however, and a major research effort is underway to explain the remainder.



## Survival

The proportion of South Australians diagnosed with non-Hodgkin lymphoma who survived five years from diagnosis increased from 40% for the period 1977–1981, to 55% for the period 1977–2003.



## Risk factors

The causes of non-Hodgkin's lymphomas are not known. A malfunctioning immune system may be involved, as a result of HIV infection, or exposure to chemotherapy or drugs designed to suppress the rejection of organ transplants. It is also suspected that lymphocyte damage from certain viral infections may play a part (e.g. infection with Human T-Cell Lymphotropic Virus (HTLV-1) and potentially the Epstein-Barr Virus).

Updated March 2009 based on latest SA data (2006)

Data source:  
Cancer Registry Reports, SA Dept Health  
Globocan 2002, IARC