



South Australia 2007 figures

number of cases

number of deaths

incidence/100,000 (ASR* Aust 2001 population)

mortality/100,000 (ASR* Aust 2001 population)

risk of developing cancer (by age 75 years)

	males	females	persons
number of cases	452	317	769
number of deaths	421	236	657
incidence/100,000 (ASR* Aust 2001 population)	52.3	31.0	40.3
mortality/100,000 (ASR* Aust 2001 population)	48.7	22.2	34.0
risk of developing cancer (by age 75 years)	1 in 28	1 in 44	1 in 34

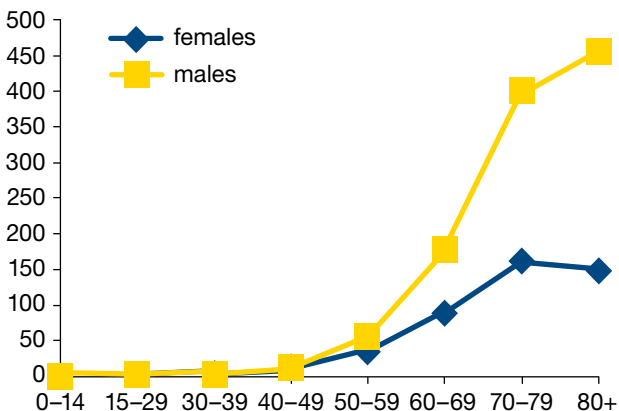
*ASR – Age Standardised Rate

Patterns in incidence and mortality

Age

Lung cancer rarely occurs before the age of 50 years, after which incidence rates increase with age to peak at 80+ yrs for males and 70–79 years for females.

Age specific lung cancer incidence (annual average rate/100,000, SA 1998–2007)



Gender

South Australian males have a higher overall rate of lung cancer, twice that of females. In older age groups the differences are even greater reflecting past smoking rates.

Country of birth

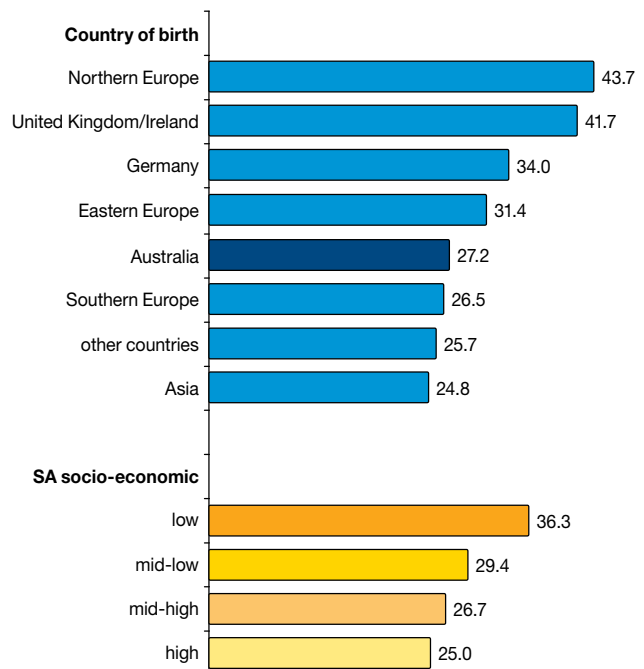
Within South Australia, the incidence was more than 30% higher in the overseas-born than Australian born during 1977–2000. Among those with higher incidence rates were residents born in Northern

Europe, the United Kingdom/Ireland, and Eastern Europe. Males born in Southern Europe also had a higher rate than Australian-born males, but females born in Southern Europe had a relatively low rate.

SES/region

South Australian residents of low socio-economic areas had an elevated incidence of lung cancer in 1977–2001. In general, the incidence was about 17% higher in Adelaide than in the country. Adelaide regions with the highest incidence were the Western and Northern regions, whereas the lowest rate applied to the Eastern region. In the country, an exceptionally high incidence was suggested for Whyalla.

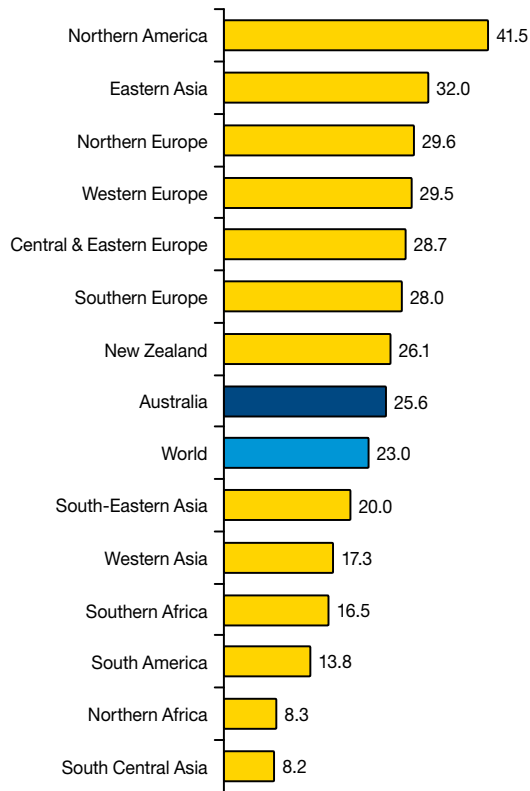
Lung cancer incidence by country of birth and SES (annual rate/100,000, SA 1977–2001, ASR World population)



Global comparisons

Australia's lung cancer incidence is neither high or low by world. Most developed countries have higher incidence while most less developed countries have lower incidence. The worldwide variation in incidence is around fivefold and reflects regional variations in the prevalence of cigarette smoking several decades earlier.

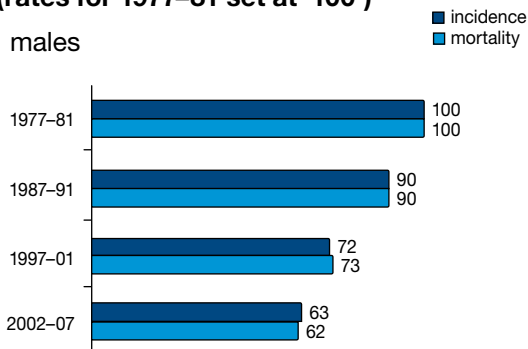
Lung cancer incidence rate by regions of the world (rate/100,000 ASR World population, Globocan 2008)



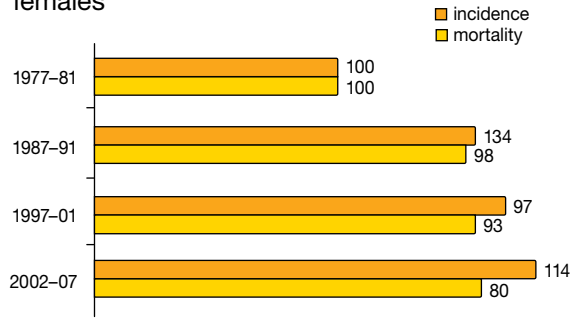
Trends

Incidence has reduced by around 37% in males between 1977–81 and 2002–2007, reflecting historic declines in tobacco smoking. By comparison, there were increases among females of about 82% over the same period, reflecting the uptake of smoking among women several decades ago. Trends in mortality rates reflect changes in incidence, due to poor survival outcomes for lung cancer.

Trends in lung cancer incidence and mortality in SA (rates for 1977–81 set at '100')



females

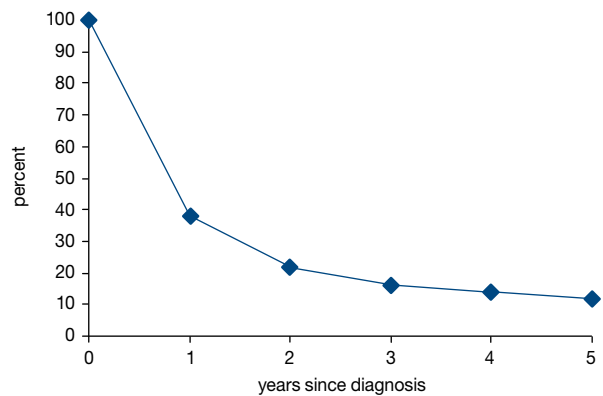


Survival

Survival outcomes vary depending on age at diagnosis and stage of disease, but are relatively poor for lung cancer patients at any stage, with only 11% overall surviving for five years or more.

Outcomes have improved only marginally over time, with a five year survival of 12% among those diagnosed between 1997 and 2003 compared with 10% among those diagnosed between 1977 and 1981.

Survival from lung cancer (SA, 1997–2003)



Risk factors

Risk factors include:

- tobacco smoking, which accounts for over 80% of lung cancers in Australian males and about three quarters of those in females
- occupational exposures, such as exposures to asbestos; inorganic arsenic; chloromethyl ethers; chromium compounds; products of steel and nickel processing; polycyclic aromatic hydrocarbons from coal-gas generation, coke plants and other sources; silica dust; radon products in uranium and other mining settings; and ionising radiation
- diets low in vegetables and fruit
- possibly air pollution.

Data sources:

- Cancer Registry reports, South Australian Department of Health
- Globocan 2008, IARC.