

## LUNG CANCER – Includes Trachea and Bronchus

South Australia 2005 Figures	Males	Females	Total
Number of cases	484	275	759
Number of deaths	433	220	653
Incidence/100,000 (ASR* Aust 2001 Population/100,000)	58.0	27.5	41.2
Mortality/100,000 (ASR* Aust 2001 Population/100,000)	52.0	22.2	35.2
Risk of developing lung cancer (by age 75 yrs.)	1 in 24	1 in 47	1 in 32

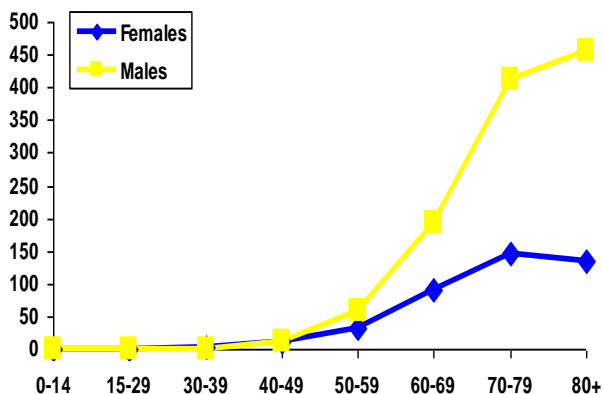
\* ASR – Age Standardised Rate

### 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 1995-2005)



#### 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.

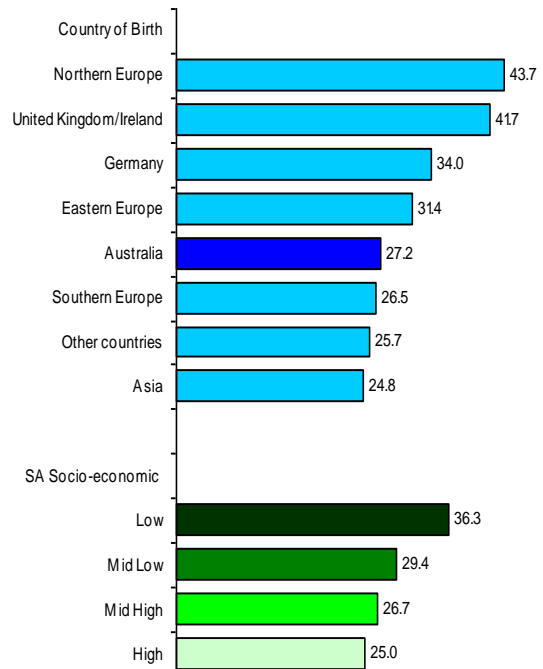
#### Country of birth

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

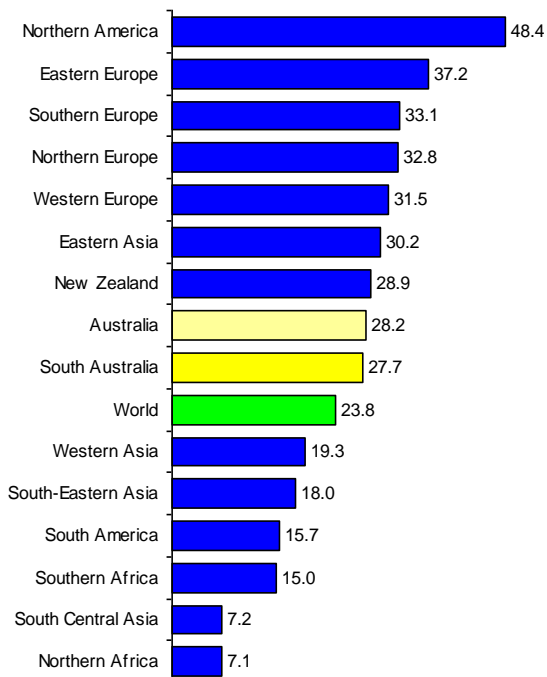


(Annual rate/100,000 SA 1977-2001 – ASR (World Pop.))

## GLOBAL COMPARISONS

South Australia and Australia overall had a low incidence of lung cancer in 2002 compared with other developed countries. Higher rates were suggested in most parts of Europe, North America and New Zealand. Lower rates are observed in most developing regions of the world. The worldwide variation in incidence during that period was five fold reflects regional variations in the prevalence of cigarette smoking several decades earlier.

### Lung cancer incidence rate by regions of the world

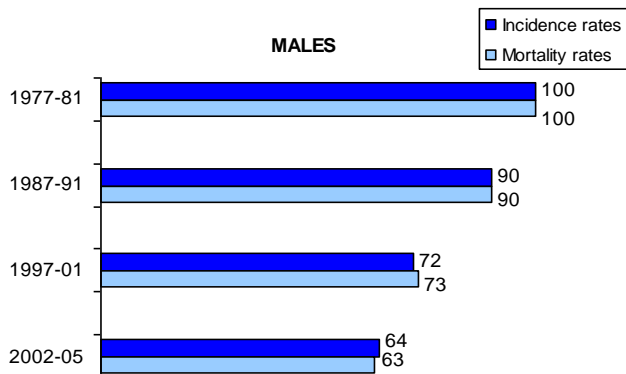


(Rate/100,000 ASR World Pop., Globocan 2002)

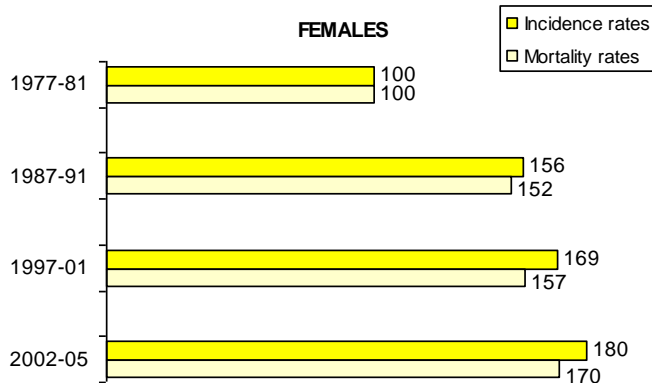
## TRENDS

Incidence and mortality has reduced by around 36% in males between 1977-81 and 2002-2005, reflecting historic declines in tobacco smoking. By comparison, there were increases among females of about 80% 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

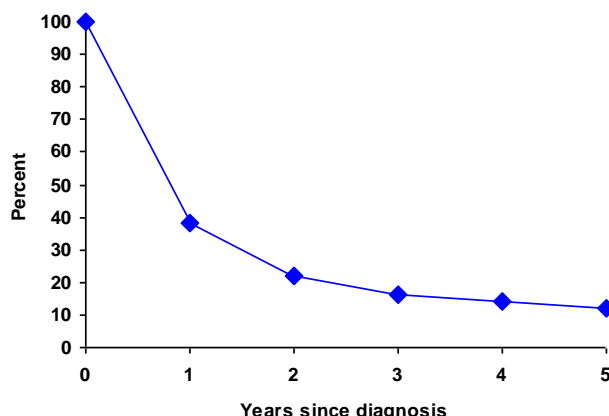


## SURVIVAL

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 5 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.