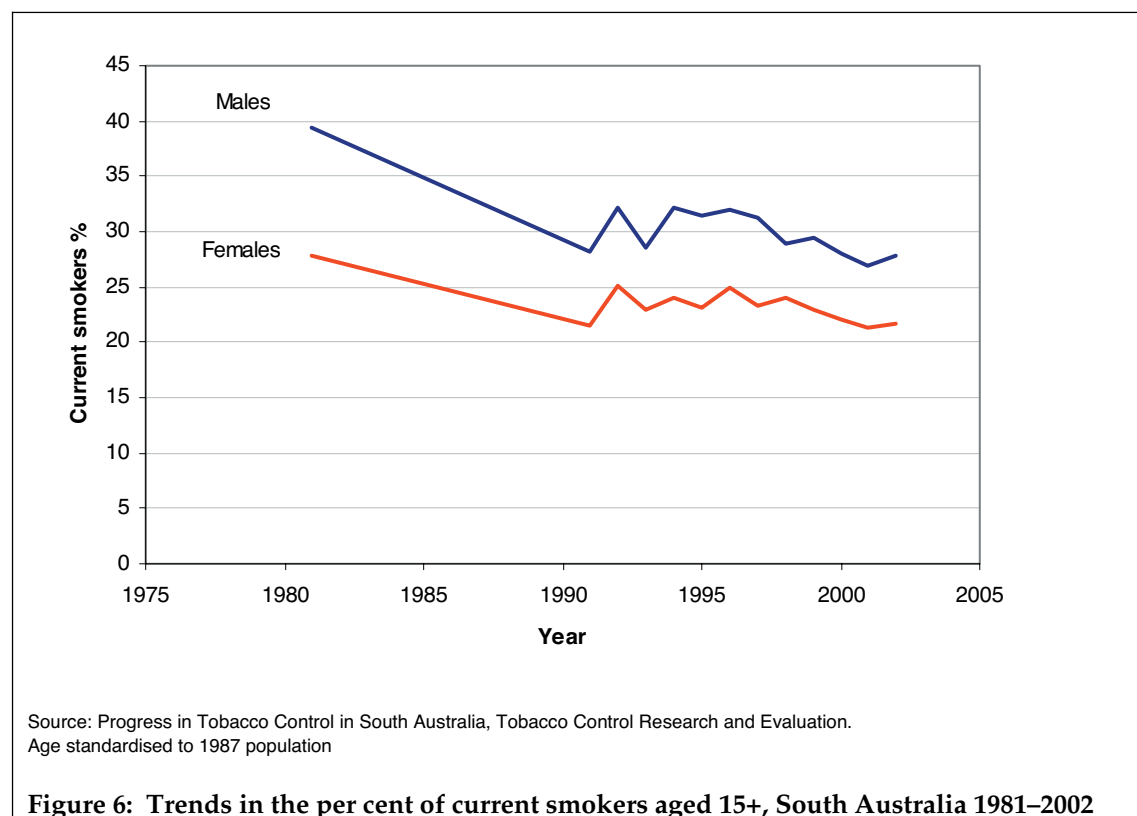


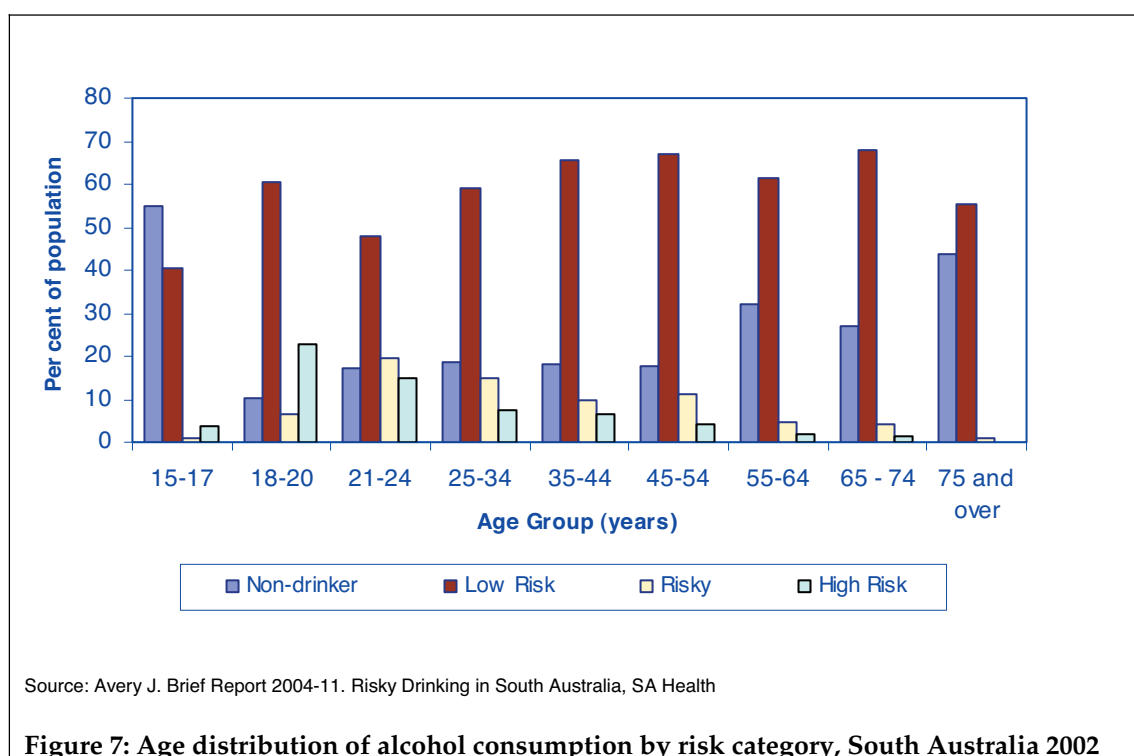
5 Cancers attributed to smoking and alcohol consumption

The risk factors

Alcohol and smoking are well known risk factors for many cancers (Tables 9 and 10). It is also now well understood, through many national and international studies, which cancers are influenced by alcohol and smoking and to what extent. Current estimates place smoking prevalence at around 25% (although this varies by age and sex). While there have been declines in the level of smoking over the last decades there is a substantial proportion of cancers that can still be attributed to smoking (Figure 6). A further reduction in smoking would see significant declines in cancer rates and other health problems such as Chronic Obstructive Pulmonary Disease (COPD) and cardiovascular disease.



Similarly, alcohol has an effect on cancer risk, although not to the same extent as smoking. Consuming alcohol at high and sustained levels can have a long term effect on the risk of cancer and Figure 7 indicates some of the patterns of self reported alcohol consumption by age and risk. The risk levels are based on NHMRC guidelines for alcohol and health risk (not just cancer). From the data a small but significant proportion of South Australians engage in high risk levels of alcohol consumption which, if continued, is likely to lead to long term health issues such as cancer. This is especially true of young people aged 18-24, where over 15% of the population engage in high risk behaviour.



5.1 Smoking and alcohol related cancers in South Australia

This section examines the impact of cancer of smoking and alcohol separately, however the combination of both and other lifestyle related risk factors are likely to increase the risks for individuals substantially.

In an analysis of cancer patterns in South Australia in 2002, smoking contributed to 15.0% (age-standardised rates - 79.5/526.7 new cases per 100,000) of all male cancers and 7.4% (29.4/397.1) of all female cancers. This equates to approximately 625 numbers of new cases each year in males and 282 cases in females.

Alcohol contributed to 2.2% (11.5/526.7 new cases per 100,000) of all male cancers and 4.0% (15.9/397.1) of all female cancers. This equates to approximately 92 new cases each year in males and 138 new cases in females.

In terms of mortality, smoking contributed to 25.9% (62.0/239.4 deaths per 100,000) of all male and 16.8% (25.7/153.1) of all female cancer deaths – equivalent to approximately 481 male deaths and 191 female deaths.

Alcohol by comparison contributed to 2.6% (6.2/239.4 deaths per 100,000) of all male and 3.1% (4.8/153.1) of all female cancer deaths – equivalent to approximately 48 male deaths and 45 female deaths.

For the most part, the increased burden of smoking and alcohol on mortality patterns compared with incidence patterns indicates that the cancers that respond to smoking and alcohol have a poor survival rate.

Tables 9 and 10 show the component of the South Australian cancer incidence and mortality rates attributable to smoking and alcohol for a range of cancer sites.

Table 9: Incidence and mortality rates by cancer site attributable to smoking and alcohol consumption, males, South Australia, 2002

| Cancer Site | Total incidence rate | Smoking attributable | | Alcohol attributable | |
|---------------|----------------------|----------------------|----------------|----------------------|----------------|
| | | Incidence rate | Mortality rate | Incidence rate | Mortality rate |
| Buccal cavity | 24.0 | 11.1 | 5.4 | 3.7 | 0.4 |
| Oesophagus | 7.1 | 3.6 | 6.7 | 3.2 | 3.0 |
| Stomach | 13.7 | 1.7 | 11.8 | 0.0 | 0.0 |
| Liver | 6.7 | 0.0 | 4.2 | 2.5 | 1.5 |
| Anus | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| Pancreas | 8.9 | 2.0 | 9.1 | 0.0 | 0.0 |
| Larynx | 4.6 | 3.1 | 2.7 | 2.1 | 1.3 |
| Lung | 56.8 | 50.7 | 51.1 | 0.0 | 0.0 |
| Penis | 0.9 | 0.2 | 0.1 | 0.0 | 0.0 |
| Bladder | 16.2 | 6.2 | 8.7 | 0.0 | 0.0 |
| Kidney | 16.1 | 0.6 | 6.0 | 0.0 | 0.0 |
| Renal Pelvis | 0.5 | 0.2 | 0.2 | 0.0 | 0.0 |

There are several cancer sites of note where smoking contributes in a major way. A large proportion of the lung cancer burden for both men (89%) and women (70%) can be attributed to smoking. Smoking and alcohol are both important for cancers of the mouth, larynx and oesophagus. For women, 11% of breast cancers can be attributed to alcohol consumption.

Table 10: Incidence and mortality rates by cancer site attributable to smoking and alcohol consumption, females, South Australia, 2002

| Cancer Site | Total incidence rate | Smoking attributable | | Alcohol attributable | |
|---------------|----------------------|----------------------|----------------|----------------------|----------------|
| | | Incidence rate | Mortality rate | Incidence rate | Mortality rate |
| Buccal cavity | 8.4 | 3.3 | 3.0 | 0.8 | 0.2 |
| Oesophagus | 3.0 | 1.2 | 3.4 | 1.1 | 0.8 |
| Stomach | 5.7 | 0.5 | 1.5 | 0.0 | 0.0 |
| Liver | 1.7 | 0.0 | 0.0 | 0.5 | 0.5 |
| Anus | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 |
| Pancreas | 7.1 | 1.2 | 2.1 | 0.0 | 0.0 |
| Larynx | 0.9 | 0.5 | 1.8 | 0.4 | 0.0 |
| Lung | 28.4 | 20.0 | 46.0 | 0.0 | 0.0 |
| Breast | 120.3 | 0.0 | 0.0 | 13.1 | 3.3 |
| Vulva | 1.5 | 0.5 | 3.3 | 0.0 | 0.0 |
| Bladder | 4.4 | 1.2 | 0.8 | 0.0 | 0.0 |
| Kidney | 6.3 | 0.7 | 0.1 | 0.0 | 0.0 |
| Renal Pelvis | 0.6 | 0.2 | 3.0 | 0.0 | 0.0 |