Background

Drinking alcohol at risky levels increases the likelihood of illness, hospitalisation and death. But while heavy drinking has negative health, social and economic implications, there may be some benefits from low alcohol consumption.

The health risks and benefits of alcohol consumption may be different for women. Women have smaller livers and smaller bodies than men, and a higher proportion of fat in their bodies, which makes them more susceptible to the impact of alcohol consumption than men.

The Australian Longitudinal Study on Women’s Health (ALSWH) regularly collects information about women’s health and health behaviours, including their consumption of alcohol.

Alcohol Consumption

The Australian Alcohol Guidelines classify alcohol consumption among women into categories that reflect the risk to their health in the long term. Consuming up to 2 standard drinks per day (or up to 14 drinks per week) is considered to pose ‘low risk’ to health in the long term, whereas consuming 3 or more standard drinks per day (or 15 or more drinks per week) is considered to be ‘risky’ for long-term health among women (see Figure 1).

Did you know?

Women who drink up to one or two drinks a day tend to be in better health than non-drinkers, at all ages, even when other factors are taken into account. However, drinking more than this is associated with poorer health, particularly mental health, and is often combined with other health risks such as smoking.

At Survey 1 in 1996, most women in the study were non-drinkers, rarely drank or usually drank fewer than two drinks per day (Figure 2). Fewer than one in twenty women were drinking at levels that were risky to their health over the long term.

Consuming five or more standard drinks on one occasion is considered to be risky for health in the short term, as it increases the risk of traffic accidents, falls and other harm. This practice was more common among younger than mid-age or older women.
Figure 3 shows that about one in five younger women “often” drank five or more drinks on one occasion. Among younger women, 93% of those drinking at risky levels to their long-term health were also drinking at levels of short-term risk to their health at least weekly. A quarter of younger women who were drinking at low risk to their long-term health participated in short-term risk drinking at least once a week.

Amongst the mid-age women, the most common type of alcohol consumed was wine. A third of women drank white wine and a quarter drank red wine each week. One in eight mid-age women drank spirits or liqueurs every week. Beer was less popular than other drinks among mid-age women.

Are women who consume alcohol different from other women?

The associations at Survey 1 between alcohol consumption and socio-demographic characteristics, health status and health service use of women of different ages were explored.

In summary:

Non-drinkers and women who rarely drank were more likely to be:
- non-smokers
- pregnant or mothers of young children
- less healthy (more general practitioner visits and prescription medications)
- from a non-English-speaking background

Women who drank up to 2 drinks a day generally:
- had better physical health
- were a healthy weight
- exercised more often
- lived in urban areas
- had more education
- were more able to manage on their income
- were born in Australia or another English-speaking country

Women who drank at least 3 drinks a day tended to:
- be current smokers
- have poorer mental health
- and among younger women (measured at Survey 2) to:
- be current users of multiple illicit drugs
- have deliberately harmed themselves
- have had more male sexual partners

Factors associated with short-term risk drinking among younger women were explored. Having five or more drinks on one occasion occurred more often among younger women who:
- were Australian-born or had an English-speaking background
- were current smokers
- were not pregnant or had never been pregnant
- had difficulty managing on their income
- had deliberately harmed themselves
- were current users of illicit drugs
- had had more male sexual partners

Younger women who were pregnant or had become mothers were least likely to drink 5 or more drinks on one occasion. As one younger participant said:

“At present I only consume 1/2 glass of red wine less than 1/week. But prior to my pregnancy I would consume more. I am currently 19 weeks pregnant.”

Changes in alcohol consumption over time

The majority of women did not change their level of alcohol consumption over the study period (time span varies for each age group: 7 years for the younger women, 5 years for the mid-age women and 6 years for the older women). Most women who reported drinking alcohol were drinking at low levels of risk to their long-term health at all surveys. Younger women were more likely than mid-age or older women to change their drinking from risky to low levels of risk (Figure 4).
Factors associated with changes in alcohol consumption over time were explored. In summary, for women in all age groups, the most consistent and largest associations over time were between smoking and drinking habits:

• women who smoked had consistently higher odds of remaining risky drinkers
• women who smoked had consistently higher odds of changing from low risk to risky drinking.

Changes in alcohol consumption were also related to changes in marital status:

• younger women who became married or formed de facto relationships between Survey 1 and Survey 2 were less likely to continue risky drinking
• mid-age women in de facto relationships had a greater chance of continuing risky drinking
• older women who became widows were less likely to continue to drink at levels of risk to their long-term health.

Younger women who were or had become mothers during the previous 4 years were less likely to continue to drink at risk than women who were not mothers.

A relationship between poor mental health and risky drinking was seen among the mid-age women. Women whose mental health had deteriorated over time had higher odds of beginning to drink at levels of risk.

**Long-term effects of alcohol consumption on women’s health**

The association between alcohol consumption and health over the 5 to 7 years between surveys was investigated. We examined whether the women who remained in the study until Survey 3 had different levels of alcohol consumption to those who withdrew or were lost to follow-up. In all age groups, women who were risky drinkers were just as likely to remain in the study as low risk drinkers. Women who were non-drinkers were more likely to withdraw from the study than low risk drinkers.

Alcohol consumption was significantly associated with aspects of health-related quality of life in all age groups, after adjusting for area of residence, education, smoking and comorbidity (having at least one chronic medical condition).

**Findings for younger women**

• women who were non-drinkers had poorer physical functioning and overall physical health than women their age who drank one or two drinks a day
• women who regularly drank more than 2 drinks a day had poorer mental health than women their age who drank one or two drinks a day.

**Findings for mid-age women**

• women who were non-drinkers or rarely drank had poorer physical health than women who drank one or two drinks a day
• women who regularly drank 3 or more drinks a day had poorer mental health and general health than women their age who drank one or two drinks a day.

**Findings for older women**

There have been suggestions that women may be at increased risk from alcohol as they age. However, prior to this study there has been a lack of longitudinal data on the relationship between alcohol consumption and health among older women in Australia. This lack of empirical evidence has made it difficult to determine whether there should be different guidelines for the safe consumption of alcohol among older people. Findings from the first six years of the study, during which time the women aged from 70-75 years to 76-81 years, are shown on the following page. They will complete their fourth survey in 2005 when they will be aged 79-84 years.

The Australian Longitudinal Study on Women’s Health is a landmark study funded by the Australian Government Department of Health and Ageing and conducted by a team of researchers at the Universities of Newcastle and Queensland.

The study:

• is designed to monitor and document the health and wellbeing of Australian women in urban, rural and remote areas
• aims to provide policy relevant information to contribute to health and welfare planning
• began in 1996 with a representative sample of 40,000 Australian women in three age groups
• includes younger women born 1973-78, middle-aged women born 1946-51, and older women born 1921-26
• has the capacity to link Medicare data on service usage with survey information
• collects data on physical and emotional health, health service use, life course events, demographic, and social and behavioural factors
• is planned to run for twenty years or more.

“Two years ago I stopped drinking alcohol and using illicit drugs (something I had done for 11 years). This has greatly improved both my physical, emotional and mental health. It has been the best thing I have ever done - for myself and everyone around me.”

Who changes how much they drink?

The association between alcohol consumption and health over the 5 to 7 years between surveys was investigated. We examined whether the women who remained in the study until Survey 3 had different levels of alcohol consumption to those who withdrew or were lost to follow-up. In all age groups, women who were risky drinkers were just as likely to remain in the study as low risk drinkers. Women who were non-drinkers were more likely to withdraw from the study than low risk drinkers.
Older women, alcohol consumption and mortality

The proportion of women who died over the six year study period is shown in Table 1, according to their alcohol consumption at the start of the study.

Table 1. Alcohol consumption at Survey 1 and mortality by Survey 3 among 11948 older women

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
<th>% of women</th>
<th>Death rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-drinker</td>
<td>never drink alcohol</td>
<td>34</td>
<td>10</td>
</tr>
<tr>
<td>Rarely drink</td>
<td>drink only rarely or less than every week</td>
<td>29</td>
<td>8</td>
</tr>
<tr>
<td>Low risk drinker</td>
<td>1-2 drinks per day or up to 14 per week</td>
<td>34</td>
<td>6</td>
</tr>
<tr>
<td>Risky intake</td>
<td>3 or more drinks per day, or more than 14 per week</td>
<td>3</td>
<td>7</td>
</tr>
</tbody>
</table>

After adjustment for area of residence, education, smoking and comorbidity (having at least one chronic medical condition), older women who were non-drinkers or rarely drank had a significantly higher risk of dying than low risk drinkers.

Older women, alcohol consumption and health-related quality of life

A strong relationship was found between alcohol consumption and health-related quality of life among the older women. After adjusting for area of residence, education, smoking and comorbidity:

• older women who were non-drinkers had poorer general physical health and poorer mental health than women who drank one or two drinks a day
• older women who rarely drank also had poor general physical health and poorer mental health than women who drank one or two drinks a day.

Find out more

Further details are available in the full report
Australian Women and Alcohol Consumption 1996-2003,

Background information on the entire project can be found in the companion report in this series:
Australian Longitudinal Study on Women’s Health: The First Decade.

For surveys, details of scientific publications, and other information see the project website:
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