
**TITLE**

Alcohol: prevention, policy and primary care responses

**AUTHORS**

Amy Pennay BA(Hons), PhD, Postdoctoral Research Fellow, Centre for Health & Society, School of Population and Global Health, University of Melbourne & Centre for Alcohol Policy Research, Turning Point, Eastern Health, Melbourne, Victoria

Dan I. Lubman BSc(Hons), MBChB, PhD, FRANZCP, FAcHAM, Professor & Director, Turning Point, Eastern Health & Eastern Health Clinical School, Monash University, Melbourne, Victoria

Matthew Frei, MBBS, FAcHAM, Clinical Director, Turning Point & Eastern Alcohol and Drug Services, Eastern Health, Melbourne, Victoria

**KEYWORDS**

Alcohol, dependence, policy, prevention, treatment, primary care

**CONFLICT OF INTEREST**

Amy Pennay is funded by an NHMRC Early Career Fellowship (APP1069907). In the past 3 years, Dan Lubman has received speaking honoraria from Astra Zeneca, Janssen-Cilag and Servier, and has provided consultancy support to Lundbeck.

**WORD COUNT**

2360 (excluding abstract, tables and references)
ABSTRACT

Background: Alcohol is Australia’s most socially acceptable legal drug; however alcohol-related harms have increased significantly over time. Encouraging safer levels of alcohol consumption should be a national health priority and a key focus for health practitioners.

Objective: The purpose of this paper is to discuss some of the reasons that alcohol is such a popular and valued commodity in Australia, as well as some of the common problems caused by alcohol. We outline the most effective policy and treatment approaches to reduce alcohol consumption and related harms.

Discussion: Research evidence suggests that the most effective policies for reducing alcohol consumption and related harms are those focused on restricting its availability and accessibility; however, such strategies are often not implemented or enforced for political and economic reasons. Undertaking screening and brief intervention are effective ways of addressing problematic alcohol consumption within primary care, and can be further supported through promoting community-organised periods of abstinence.
Australian culture and alcohol

The image of the heavy-drinking Australian has historical roots that date back to colonisation, and it has been argued that “drinking forms part of the romantic Australian legend” (1:895). In the 19th century, Australia celebrated a masculine, predominantly working class, pub-going, beer-drinking, round-shouting stereotype (1). Although this stereotype is still supported in contemporary times, as women’s participation in the workforce has increased and the gap in the earning power of men and women has decreased, there has been a trend towards women drinking as much as men (2). Indeed, the proportion of women who drink at risky levels has increased more sharply than that of men in the past fifteen years (3).

Alcohol is widely available in Australia, with the number of licensed restaurants, cafes, pubs, bars, nightclubs and bottle shops rising every year. Over the past 20 years, there has been a gradual deregulation of liquor licensing that has made it easier to obtain liquor licenses and extend trading hours. The purpose of deregulation was an attempt to tackle Australia’s heavy drinking culture and create a ‘civilised’ drinking environment by encouraging more European or continental drinking habits; however, it is widely regarded that this vision has failed (4). Instead, deregulation of liquor licensing has resulted in the development of ‘entertainment precincts’ in metropolitan areas, drawing people in from regional areas to drink and gamble, and alcohol consumption has become a key feature of leisure time in Australia (5).

The alcohol industry has been suggested to have actively contributed to creating a ‘culture of intoxication’ in Australia (and other countries) over time, by lobbying hard for liberalisation of alcohol licensing, developing powerful advertising campaigns that normalise drinking and continually re-branding alcohol (e.g., developing and marketing designer drinks such as alcopops, boutique beers, etc.) to create a diverse and sophisticated market that mitigates against minimal consumption (6). Drinking heavily in entertainment precincts is a common occurrence on most weekends, with a recent study of 7000 patrons (median age 22 years) interviewed between the hours of 9pm and 5am in five Australian cities finding that respondents had consumed an average of 7 drinks on their night out (so far), with 30% recording a mean blood alcohol concentration (BAC) in excess of 0.1 mg/100mL by 1am (7).
Problems caused by alcohol

Although alcohol remains Australia’s most socially acceptable legal drug, it is the second leading cause of preventable morbidity and mortality (8), with social costs estimated to exceed $15 billion per annum (9). Alcohol contributes to more than 3,000 deaths and 100,000 hospitalisations each year (10), and there is evidence that these harms are increasing, with Victorian data demonstrating increases of between 50% and 200% in rates of acute and chronic harms related to alcohol (11). While the focus has typically been on young people, a recent analysis of Victorian ambulance and hospital attendances found that rates of alcohol-related harm for people aged over 65 are also increasing (12).

Drinking alcohol above recommended levels increases the risk for more than 60 different diseases, as well as mental disorders (13). Liver disease is the most common cause of death from regular heavy drinking, with more than 6,800 deaths due to alcoholic liver disease between 1992-2001, and recent data suggesting that it is becoming more prevalent (14). More than 5,070 cases of cancer (or 5% of all cancers) are estimated to be attributable to long-term chronic alcohol consumption each year in Australia (15). As well as the direct health effects on the drinker, a recent study found that a majority of Australians report being adversely affected by someone else's drinking in the past twelve months, with 28.5% adversely affected by the drinking of a household member, relative or friend, and 43.4% by the drinking of acquaintances or strangers (16).

Prevention: population level strategies to reduce alcohol consumption

Australia, as with many other countries, has adopted a range of policies to reduce alcohol consumption and related harms; however, the most successful strategies are often not implemented or enforced for political and economic reasons. The most successfully applied prevention strategy to reduce the harmful consequences of alcohol consumption in Australia has been drink-driving counter-measures. Australia is a world-leader in terms of setting a low blood alcohol content (BAC) limit for drivers (0.05%, and zero for probationary drivers), enforcing strict penalties for breaches of the law and mounting a successful social marketing campaign that increased the stigma associated with drink-driving (17).

Aside from drink-driving, the research evidence suggests that the most effective strategies for reducing alcohol consumption and related harms are those focused on restricting its availability and accessibility (18). In particular, there is strong evidence to suggest that
Reducing trading hours (i.e., imposing a curfew on licensed venues) results in less alcohol purchased and consumed, and subsequently less alcohol-related harms (18, 19). Reducing the density of alcohol outlets (i.e., reducing the number of alcohol outlets in close proximity) has also been shown to decrease alcohol consumption and harm (18, 19). Reducing the density of pubs and nightclubs decreases alcohol-related assaults, while reducing the density of bottle shops (which tend to cluster in socioeconomically disadvantaged neighbourhoods) not only decreases assaults, but also domestic violence and chronic disease (20). There is also evidence to demonstrate that raising the price of alcohol (either through minimum pricing, bans on discounts or increasing taxation), results in reduced per capita alcohol consumption and reduced acute and chronic alcohol-related harms (18, 19). Raising the price of alcohol is a complex process. For example, alcohol taxation in Australia has historically been a “balancing exercise between industry protection, revenue raising, and political expediency, as well as public health” (21:1).

Despite strong evidence that policies that restrict the availability and accessibility of alcohol work to reduce alcohol-related harm, they are often not implemented because they are politically unpalatable on a number of fronts – many drinkers and members of the general community often oppose such restrictions (and governments are cautious about being perceived as supporting a ‘nanny’ state), the alcohol industry is a strong lobby group with significant political sway, and the government is accustomed to the tax revenue generated by alcohol (22).

One exception to the general reluctance of governments to restrict the availability of alcohol was the adoption of a suite of laws by the New South Wales Government in January 2014 in an effort to curb alcohol-related violence in the night-time economy. These laws include a 3am closing time for licensed venues in the Sydney CBD, a state-wide 10pm curfew on the sale of take-away liquor and a temporary freeze on the approval of new licenses (23). It will be important to monitor the effectiveness of these laws and whether they reflect a turning tide in relation to alcohol regulation in Australia.

Encouraging healthier lifestyles: National Health and Medical Research Council (NHMRC) guidelines to reduce the health risks from drinking alcohol

One approach adopted by the Australian government to reduce alcohol consumption has been the development of low risk drinking guidelines, which were recently updated by the NHMRC (24) (see Table 1). These guidelines were informed by the work of Rehm et al. (25),
who conducted analyses to determine the lifetime risk of alcohol consumption for acute injury and chronic disease. Based on a review of the international evidence, it was found that having four standard drinks on a single occasion more than doubles the risk of an injury in the six hours afterwards (24), with the risk of injury increasing by approximately 1.3 times for each additional standard drink (26). Moreover, drinking more than two drinks per day increases the lifetime risk of death from an alcohol-related disease by more than five-fold for men and six-fold for women. Each standard drink on top of this increases the chance of alcohol-related disease and death in a linear fashion (24).

There is evidence to suggest that most Australians are not aware of the existence of the NHMRC guidelines or are unsure about their specifics and the reasoning behind the thresholds. Further, these guidelines are often dismissed as too low and unrealistic (27). As a consequence, approximately 7.3 million Australians drink alcohol that puts them at risk of short-term harm every year, while 3.7 million Australians drink alcohol at levels that place them at risk of an alcohol-related disease or injury over their lifetime (3; see Table 2).

*Breaking the cycle of regular drinking*

One approach to reducing alcohol consumption that is gaining increasing momentum is attempting a period of abstinence from drinking. This is reflected in the increasing popularity of FebFast (http://febfast.org.au/), an annual health and charity event that encourages people to forgo alcohol in February. An evaluation of FebFast in 2011 (28) found that more than 85% of FebFast participants interviewed reported benefits from their month of abstinence, and more than a third of those who had reduced their alcohol consumption maintained the change for at least one year. The popularity of FebFast has resulted in the development of similar monthly periods of abstinence such as Dry July and Sober October.

Another popular program to assist individuals to reduce their alcohol consumption is Hello Sunday Morning (https://www.hellosundaymorning.org/), which encourages people to commit to a period without drinking and to share their experiences on the website. Analysis of the blog posts showed that over time, participants changed from being very self-focused – considering their own drinking and the views of peers, to reflecting on the role of alcohol in their lives, to taking a broader view of the role of alcohol in society and ways to support others in their personal sobriety experiences (29).

*Treatment: strategies for identifying problematic alcohol consumption in primary care*
**Screening and brief interventions**

Despite the significant prevalence of harms associated with heavy drinking across the Australian community, the detection and management of problematic alcohol consumption compares poorly to other chronic disease conditions or lifestyle issues. General practice is an ideal environment to screen for harmful levels of drinking and to offer brief alcohol interventions (30), with heavy drinkers presenting twice as often as other patients (31). In addition, GPs are ideally placed to intervene for this group, as they are accepted as an authoritative source of health advice (32).

Simple but powerful alcohol screening tools, such as the AUDIT and AUDIT-C (33), and effective brief interventions (a five minute intervention can reduce harmful alcohol consumption by nearly a third (34) and are often as effective as more extensive treatments (35)) are similar to other brief screens and short interventions that are essential clinical tools for most GPs. More information on approaches related to the detection and assessment of problem drinking in general practice have been covered in detail previously in this journal (36).

Poor uptake of alcohol screening and brief interventions by GPs has been linked to a range of barriers including limited access to alcohol resources/materials, lack of time, heavy workloads, lack of confidence, and concerns about raising sensitive and/or private issues with patients (37). In addition, self-involvement in a particular behaviour is one of the most consistent predictors of doctor action on prevention issues, and some studies have shown that doctors have particularly high levels of alcohol consumption compared with the general population (38). For example, one review found rates of heavy drinking among doctors between 12-16% and rates of alcohol dependence between 6-8% (38). Doctors are influenced by cultural views on alcohol, have heavy workloads and are often faced with stressful situations. It is important to take the time to reflect on any potential personal barriers to discussing alcohol with patients, address logistical barriers with practice staff and where there are concerns about raising private or sensitive matters with patients, find a way to connect with them personally about the issue, for example as part of health lifestyle practices, holistic dietary recommendations, or mental health advice.

**Alcohol Treatment**
Alcohol use disorders fit chronic disease models, with severity ranging from mild – where publicly available resources (i.e., online or telephone interventions) may be useful, to more severe dysfunction – where dedicated/specialist alcohol and drug service involvement may be sought (39). Mutual aid groups, the best known being the ‘12 Step’ programs based on Alcoholics Anonymous, are often recommended as an adjunct to clinical treatment (40). Most states and territories have online or telephone referral services available to discuss treatment options, provide information and advice and match patients with the type of treatment most suitable for them.

While the jurisdictional structure of alcohol and drug services varies across states, the ability for a GP to share treatment with a specialist alcohol and drug service can be a particularly effective model where that service has the support of an addiction medicine specialist or psychiatrist. Specialist medical support is of value where more severe markers of alcohol use disorder, such as a dependence syndrome, require intensive therapy beyond brief or psychosocial interventions, such as medical detoxification and medium- to long-term pharmacotherapy. Details of alcohol management pharmacotherapies can be sought from the National Guidelines (41) and previous articles in this journal (42). Despite clinical literature supporting their benefit and emphasising their ease of use, Australian GP uptake of the three approved pharmacotherapeutic agents for long-term alcohol relapse prevention – naltrexone, acamprosate and disulfiram – remains disappointingly low.

Hopefully the slow growth in medical responses to alcohol use, given the burden and implications for public health, will change. General practitioners have an important role in alcohol management given the volume of patients in their clinic waiting rooms, ranging from those whose heavy alcohol consumption aggravates common physical or mental health conditions to the severely alcohol dependent patient who requires specialist alcohol and drug treatment.

**Summary of important points**

- The social acceptability and high availability of alcohol has led to a normalisation of heavy drinking in Australian society.
- Research evidence indicates that limiting trading hours and outlet density, and increasing the cost of alcohol, are the most effective policies for reducing alcohol consumption and related harms; however, such strategies are not implemented for political and economic reasons.
- NHMRC low risk drinking guidelines are based on comprehensive analyses of the international evidence in regards to the lifetime risk of alcohol consumption for acute injury and chronic disease; however, they are often unknown, misunderstood and dismissed as irrelevant by drinkers.

- One approach to reducing alcohol consumption that is gaining popularity is attempting a period of abstinence from drinking through programs such as FebFast or Hello Sunday Morning.

- Problematic alcohol consumption remains poorly detected and managed within primary care despite the established effectiveness of approaches such as opportunistic screening and brief interventions.

- Finding a way to connect with patients as part of providing general lifestyle, dietary or mental health advice might be one way of overcoming barriers to addressing heavy alcohol consumption within primary care.

- For dependent or problematic drinkers, it might be worthwhile consulting with an addiction medicine specialist or facilitating contact with specialist alcohol treatment services.
TABLE 1. National Health and Medical Research Council guidelines to reduce the health risks from drinking alcohol (24)

<table>
<thead>
<tr>
<th>Guideline 1: Reducing the risk of alcohol-related harm over a lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>The lifetime risk of harm from drinking alcohol increases with the amount consumed.</td>
</tr>
<tr>
<td>*For healthy men and women, drinking no more than 2 standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Guideline 2: Reducing the risk of injury on a single occasion of drinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>On a single occasion of drinking, the risk of alcohol-related injury increases with the amount consumed.</td>
</tr>
<tr>
<td>*For healthy men and women, drinking no more than 4 standard drinks on a single occasion reduces the risk of alcohol-related injury arising from that occasion.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Guideline 3: Children and young people under 18 years of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>*For children and young people under the age of 18 years, not drinking alcohol is the safest option.</td>
</tr>
<tr>
<td>A: Parents and carers should be advised that children aged under 15 years are at the greatest risk of harm from drinking, and that for this age group, not drinking alcohol is especially important.</td>
</tr>
<tr>
<td>B: For young people aged 15–17 years, the safest option is to delay the initiation of drinking for as long as possible.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Guideline 4: Pregnancy and breastfeeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal alcohol consumption can harm the developing foetus or breastfeeding baby.</td>
</tr>
<tr>
<td>*A: For women who are pregnant or planning a pregnancy, not drinking is the safest option.</td>
</tr>
<tr>
<td>*B: For women who are breastfeeding, not drinking is the safest option.</td>
</tr>
</tbody>
</table>
TABLE 2. Percentage of Australians aged 12 years or older at risk of alcohol-related harm on a single occasion at least once a year, and over a lifetime, in 2010 (3)

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>High risk single occasion men</th>
<th>High risk single occasion women</th>
<th>High risk lifetime men</th>
<th>High risk lifetime women</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-15</td>
<td>5.9</td>
<td>10.2</td>
<td>0.6</td>
<td>1.5</td>
</tr>
<tr>
<td>16-17</td>
<td>45.1</td>
<td>36.5</td>
<td>11.2</td>
<td>8.6</td>
</tr>
<tr>
<td>18-19</td>
<td>71.9</td>
<td>60.4</td>
<td>42.3</td>
<td>20.3</td>
</tr>
<tr>
<td>20-29</td>
<td>66.1</td>
<td>54.5</td>
<td>36.1</td>
<td>17.4</td>
</tr>
<tr>
<td>30-39</td>
<td>61.8</td>
<td>38.7</td>
<td>31.1</td>
<td>11.3</td>
</tr>
<tr>
<td>40-49</td>
<td>54.5</td>
<td>32.0</td>
<td>30.8</td>
<td>12.8</td>
</tr>
<tr>
<td>50-59</td>
<td>49.2</td>
<td>20.9</td>
<td>30.8</td>
<td>11.9</td>
</tr>
<tr>
<td>60-69</td>
<td>35.9</td>
<td>8.9</td>
<td>27.9</td>
<td>7.5</td>
</tr>
<tr>
<td>70+</td>
<td>16.1</td>
<td>3.6</td>
<td>18.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Total (12+)</td>
<td>48.4</td>
<td>29.1</td>
<td>28.1</td>
<td>11.0</td>
</tr>
</tbody>
</table>
USEFUL RESOURCES FOR PATIENTS

SayWhen (http://www2.betterhealth.vic.gov.au/saywhen/) provides information and resources to help patients make decisions about their drinking.

Hello Sunday Morning (https://www.hellosundaymorning.org) encourages people to commit to a period without drinking and to share their experiences on the website.

OnTrack Alcohol (https://www.ontrack.org.au) provides an online self-help program to help people cut back on their drinking.

Counselling Online (http://www.counsellingonline.org.au) provides confidential online counselling to people with alcohol and drug concerns who might be unable to attend treatment, might be reluctant to access face-to-face counselling or who may find online counselling more suitable for them.

USEFUL RESOURCES FOR HEALTH PROFESSIONALS

http://www.racgp.org.au/your-practice/guidelines/redbook/appendices/appendix-3-audit-c/ provides access to the AUDIT-C.

http://www.sswahs.nsw.gov.au/services/Drinkless/pdf/how_to_use.pdf provides access to alcohol information that can be distributed to patients.

REFERENCES