



4. Best practice in prevention

4.1 Current activity

Considerable activity aiming to prevent alcohol-related harm is currently under way in Australia. The extent to which the considerable preventative desire and activity (planned or under way) is likely to be effective, and how well this activity reflects an evidence-based approach, is considered in the next section of this paper. In general, the measures that are most often called for by community members tend to be the least effective, while the most effective measures are the least popular and are thus probably the most difficult for governments to introduce, usually requiring strong leadership and well-planned implementation.

WHAT IS PREVENTION IN THIS AREA?

The stated aim of Australia's current National Drug Strategy is to 'prevent the uptake and minimise the harmful effects of drug use in Australian society'. Known as 'harm minimisation', this approach has been defined as encompassing:

- **Supply reduction** strategies designed to restrict the harmful supply of drugs
- **Demand reduction** strategies designed to prevent the uptake of harmful drug use
- **Harm reduction** strategies to reduce drug-related harm for individuals and communities.

The approach of harm minimisation, while complex and requiring continuing support from public advocates, is based on scientific evidence and underpins the definition of prevention adopted for the review of alcohol-related interventions in this paper. It can encompass universal as well as targeted interventions (both selective: particular high-risk sub-populations; and indicated: those with emerging problems).

Though not explored in detail in this paper, the concept of the **prevention paradox** assists in understanding prevention approaches in the areas of public health and public safety. This approach suggests that more (net) harm may be prevented through universal interventions – focusing on the majority who are less seriously involved in harmful alcohol/drug use, rather than through interventions that only target the smaller proportion of high-risk users.

WHAT WORKS IN ALCOHOL-RELATED PREVENTION?

The following discussion is informed by recent reviews of the available research evidence. This includes:

- the World Health Organization's (WHO) international review of alcohol-related research and public policy(13)
- a recent Australian research monograph on the prevention of substance use, risk and harm(7)
- a recent update of the latter, with a focus on prevention interventions targeting adolescents.(41)

Other recent reviews have also been drawn upon, to a lesser extent, including Stockwell 2004,(42) Loxley *et al.* 2005(7, 43) and NDRI 2007.(36)

The conclusions reached in the WHO report(13) with regard to the respective strengths and weaknesses of different types of interventions, according to the available international research evidence, are summarised in Table 6. Included in this table are Australian-authored evaluations of the equivalent interventions provided by Loxley *et al.*(7) and Toumbourou *et al.*(41) The scales used to rate the interventions by the respective authors are summarised in Table 5 below.



Table 5: Key to the rating scales shown in Table 6

RATING	EVIDENCE OF EFFECTIVENESS	BREADTH OF RESEARCH SUPPORT	TEST ACROSS CULTURES	AUSTRALIAN EVALUATION
0	Lack of effectiveness	No studies undertaken	Not tested	Limited investigation
★	Limited effectiveness	1 well-designed study completed	Tested in 1 country	Evidence for implementation
★★	Moderate effectiveness	2–4 studies completed	Tested in 2–4 countries	Evidence for outcome effectiveness
★★★	High degree of effectiveness	5+ studies completed	Tested in 5+ countries	Evidence for effective dissemination
?	No evidence available			N/A
●				Warrants further research
✘				Evidence is contra-indicative

This rating scale applies to the WHO’s international review (13) and Australian reviews.(14).

Of the 39 interventions listed in Table 6, at least half of these are universal (targeted at the whole population) and approximately half are targeted at high-risk groups. The international review by Babor *et al.* concludes that interventions targeting the whole population generally have higher effectiveness ratings and are less costly to implement and maintain, on average, than those targeting high-risk groups.(13) In general, the types of interventions that are considered most effective according to the ratings are, in order:

1. Regulating physical availability.
2. Taxation and pricing.
3. Drink-driving countermeasures.
4. Treatment and early intervention.

The types of interventions for which there is somewhat less evidence of effectiveness are, in order:

5. Altering the drinking context
6. Regulating promotion
7. Education and persuasion

There are differences in the ratings of some interventions between the international review(13) and the Australian review.(7) (for example, the treatment of alcohol problems and mass media campaigns). Also, importantly, it should be recognised that although the effectiveness of some interventions do not rate highly, in some cases this may be due to the limited research evidence that is available to inform the rating (for example, advertising content controls).

Table 6: Ratings of policy-relevant strategies and interventions

STRATEGY OR INTERVENTION	EFFECTIVENESS	BREADTH OF RESEARCH	CROSS-CULTURAL TESTING	COST TO IMPLEMENT	AUSTRALIAN EVALUATION
Regulating physical availability	***	***	**	High	**
	***	***	**	Low	
	**	**	**	Low	**
	**	***	**	Low	●
	***	*	*	Low	*
	**	**	*	Low	
	***	***	***	Low	**
	***	***			***
	***	***			**
	***	***			
Taxation and pricing	***	***			
	***	***			***
	***	***			***
	***	***			***
	***	***			***
	***	***			***
	***	***			***
	***	***			***
	***	***			***
	***	***			***
Drink-driving countermeasures	**	***	***	Moderate	
	***	**	**	Moderate	***
	***	***	**	Low	
	***	***	**	Moderate	
	***	**	*	Low	*
	**	**	**	Low	
	0	*	*	Moderate	*
					*
	**	***	***	Moderate	***
	*	***	***	High	***
Treatment and early intervention	*				**
	*	*	**	Low	●
	*	**	*	Moderate	
	*	**	**	Moderate	
	*	***	**	Moderate	*** (if not enforced)
	0	*	*	Low	** (if not enforced)
	**	*	**	High	
	0	**	*	High	
	**	**	*	High	**
	**	**	*	High	*
Regulating promotion	?	●	●	Low	
	?	●	●	Low	●
	0	***	**	High	*
	0	*	*	High	
	?	●	●	Moderate	●
	0	●	●	Moderate	*
	0	*	*	Low	*
	0	*	*	Low	*
	0	*	*	Low	*
	0	*	*	Low	*
Education and persuasion	?	●	●	Low	
	?	●	●	Low	●
	0	***	**	High	*
	0	*	*	High	
	?	●	●	Moderate	●
	0	●	●	Moderate	*
	0	*	*	Low	*
	0	*	*	Low	*
	0	*	*	Low	*
	0	*	*	Low	*

Source: Adapted from Babor et al. (2003), (13); Loxley et al. (2004), (7); Toumbourou et al. (2007), (41)



4.2 Regulating the physical availability of alcohol

Regulating physical availability refers to the accessibility or convenience of the alcohol products, and relates to policies that aim to prevent alcohol-related harm through controls on the condition of sale to the drinker as a retail customer.⁽¹³⁾ In Australia, there has been a recent review of the evidence for restricting the sale and supply of alcohol by the National Drug Research Institute.⁽³⁶⁾ While regulation of the 'economic' availability of alcohol (i.e. the price of alcohol) is, currently, exclusively a federal responsibility in Australia, via measures such as taxation, the physical availability of alcohol is generally regulated by state and territory governments, and to a limited extent by local governments.

Restricting the hours and days of sale of alcohol is a standard component of alcohol policy and regulation, and there is a substantial body of international and Australian work that has examined the impact of changes to trading hours for licensed premises on levels of alcohol consumption and rates of related harms. Most Australian studies have shown that increased trading hours have been accompanied by significantly increased levels of alcohol consumption and/or harms.⁽³⁶⁾ A recent Australian study by Chikritzhs and Stockwell⁽⁴⁴⁾ found that small extensions of trading hours for licensed hotels in Perth, Western Australia, significantly increased the numbers of drink-driver road crashes. More specifically, this study demonstrated that the relationship between trading hours and increased drink-driver road crashes was mediated by the quantity of alcohol purchases. The National Drug Research Institute (NDRI) reports that several studies have indicated that young males and regular heavy drinkers are especially likely to take advantage of longer trading hours.⁽³⁶⁾

Restrictions on density of outlets can be achieved by requiring minimum distances between outlets or limiting the number of outlets in a particular location.

Liquor licensing systems or planning controls can potentially be used to limit the number of places where alcohol can be sold. In recent years in Australia there has been a significant liberalisation of licensing laws and a corresponding growth in outlets, both on- and off-premises. Recent research from three states,⁽⁴⁵⁻⁴⁹⁾ has demonstrated consistent links between the availability of alcohol in a region and the alcohol-related problems experienced there. In particular, these studies have linked rates of violence to density of alcohol outlets. A longitudinal study in Melbourne has highlighted that changes in the number of outlets in an area are directly related to changes in the rates of night-time assaults occurring there. The links between outlet density and other outcomes are less clear cut, although some international evidence suggests higher outlet density is related to higher rates of: risky alcohol consumption,⁽⁵⁰⁾ motor vehicle accidents,⁽⁵¹⁾ risky sexual behaviour,⁽⁵²⁾ pedestrian injury,⁽⁵³⁾ child maltreatment⁽⁵⁴⁾ and neighbourhood amenity problems.⁽⁵⁵⁾ The results of this research are clear: liberalising alcohol availability is likely to increase alcohol-related problems. The results certainly call into question the general assumption behind actions in recent decades that have been made in accordance with National Competition Policy such as the state-led liberalisation of liquor licensing regimes – that the number of a type of outlet should be determined by market demand for the product, without consideration of community amenity or impacts.

Apart from issues of outlet density, there is the question of whether particular types of outlets or their design and location are particularly likely to cause problems. There is good evidence that certain premises contribute disproportionately to problems,⁽³²⁾ highlighting the need to further examine the types of outlets that are related to assaults. Further data, such as alcohol sales, opening hours, capacity and venue style, could provide substantial insights into how different outlets contribute to the effect of outlet density on assault.



GROWTH IN ALCOHOL OUTLETS

While not completely deregulated, liquor licensing laws and regulations in most jurisdictions have been significantly relaxed over the past decade, generally coinciding with the required reviews under the National Competition Policy. One of the effects of this has been a proliferation in the number of new licensed premises in some jurisdictions (see Fig. 8).

Along with an increase in the total number of licensed premises, there has been an increase in the numbers of premises with extended trading hours, the numbers of licences to sell packaged liquor (i.e. take away) and over time, an increased concentration of licences held by just a few businesses.

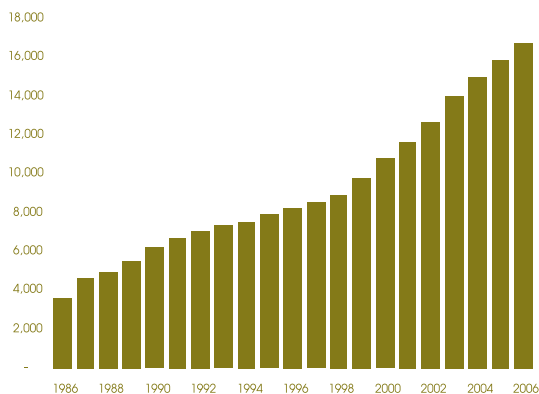


Figure 8: Number of liquor licences by year, Victoria, 1986 to 2006

Source: Consumer Affairs Victoria, unpublished data

Restricting **availability by alcohol strength** is known to be an effective intervention, both internationally and in Australia. In Australia, it has been estimated that full-strength beer makes the largest single contribution to all risky and high-risk alcohol consumption (39%).(21) The National Drug Research Institute (NDRI) reports that studies that have examined the relationship between alcoholic beverage type and levels of alcohol-related harm have found increasing evidence that beer consumption is

more commonly associated with drink-driving. (36) The NDRI also observes that while most studies identify wine as a comparatively low-risk beverage, a study by Stockwell *et al.* (1998) (56) found that certain types of wine that offer high alcohol content at a relatively low price were strongly associated with hospitalisations for alcohol-related road injuries, falls, assaults and suicides. Some small regional or remote communities in Australia, with relatively large Indigenous populations, have introduced **sales bans** on cask wine and cask fortified wine. According to the NDRI,(36) evaluations of some of these bans show that such restrictions can result in reduced alcohol-related harm in the communities where the bans exist.

The issue of the **server liability** for injuries to intoxicated people or third parties affected by the actions of a person affected by alcohol is a complex and controversial area of the law. (57) In the US, 'Dram Shop' laws and court decisions under common law in many states allow people injured through the actions of an intoxicated person to recover damages from a licensee or licensed premises owner. Such licensees are, in most Dram Shop legislation, also vicariously liable for their employees' actions in serving an (intoxicated) patron.(57) Loxley *et al.* report(7) that studies show Dram Shop laws have a modest deterrent effect, and that the underlying rationale for discouraging service of intoxicated persons is sound and there is no likelihood of adverse consequences. A recent Australian review of the key aspects of law and the implications of recent court decisions has reported that there is now a less onerous duty of care imposed on licensees and their staff with regard to the consequences of serving alcohol.(58) (See also the discussion of responsible service of alcohol (RSA) interventions in Section 4.6 of this paper).

Minimum legal purchase age refers to the age at which alcohol can actually be purchased by a person. This is distinct from the age at which alcohol can be consumed, sometimes referred to as the legal drinking age.



The distinction is important because while all state and territory laws in Australia prohibit a minor from purchasing alcohol, they do not necessarily prohibit consumption in certain circumstances. Babor *et al.* emphasise that consistent *enforcement* of laws regarding purchase age is critical if reduced alcohol consumption and related harm among young people is to be achieved.(13) Although the minimum legal purchase age for alcohol in all Australian jurisdictions is 18 years, the average age at which Australians have their first full serve of alcohol is 17 years, and as detailed earlier in this paper, there is a high prevalence of underage drinking that has not changed significantly in the past 20 years. In the US, where the minimum legal purchase age for some time ranged between 18 and 21 years, several studies have found that increasing the age limit is an effective means of reducing road crash death and injury among teenagers and young adults. The NDRI reports(36) that some studies have also found that the higher legal minimum drinking age is associated with reductions in alcohol consumption among young people. There is, therefore, some evidence that raising the purchase age to 21 can reduce teenage drinking, as well as harms. Kypri's account(59) of recent attempts to increase the minimum purchase age in New Zealand to 20 demonstrated that popular debate convinced a majority of the public that raising the age would be an appropriate way to reduce young people's harm from drinking. Toumbourou *et al.* here in Australia have recommended that a first step in this direction would be better monitoring of alcohol-related developmental harms using longitudinal and other developmental research.(41)

It must be acknowledged that consumption of alcohol by children and adolescents in the home and in certain social settings is often sanctioned by parents, often in the belief that it is relatively harmless or might be helpful in educating young people about alcohol.(60) The majority of young Australians who report drinking at home also report parents as being the primary suppliers of their alcohol.(61)

In New South Wales, it is now an offence to supply alcohol to minors in a private home without the direct approval of a parent or guardian. This has often been referred to as the **NSW secondary supply law**. While the impact of this law on youth drinking is not yet known, legislation of this kind has been welcomed by advocates against alcohol-related harm and there is currently considerable lobbying of government to support the introduction of similar laws in other Australian jurisdictions.(60)

Another example of restrictions on the physical availability of alcohol, which is known to be effective in reducing alcohol-related harm in some Australian Indigenous communities, is referred to as **dry community declarations**.(36) Some remote Indigenous communities in Western Australia, the Northern Territory and South Australia have declared themselves 'dry', using provisions of state/territory legislation. The key element of such dry area declarations is a combination of Indigenous community control and statutory authority, along with police enforcement for ensuring that dry community declarations reach their potential. Evidence suggests that although there are shortcomings (for example, sly grogging) and associated costs to this approach, overall there are reductions in consumption and alcohol-related harm. It should be noted that dry community declarations are distinct from **local dry area alcohol bans**, as the latter relate to restrictions on drinking in designated public places and are usually imposed where there are high rates of alcohol-related public disorder.(36) While local dry area bans have been found to decrease public order problems in designated areas, overall it is not yet fully known if they reduce public order offences, alcohol-related hospitalisations or police detentions of intoxicated persons. Often dry area restrictions simply displace drinkers to other areas where there are no, or fewer, restrictions, and dry area declarations are often seen as inherently discriminatory because of the negative impacts on Indigenous people already at risk of alcohol problems.(36)



Currently receiving considerable attention in some Australian jurisdictions are measures related to restricting the hours of sale of alcohol, known as **lockouts**. These do not restrict trading hours per se, however, because outlets are permitted to continue trading until their usual closing times. However, after a certain time, such as 2:00am or 3:00am, *new* patrons and those wishing to re-enter the premises are not permitted to do so. Lockouts aim to reduce the movement of people between clubs after a certain time, since it is this movement of people between venues that police have reported as being a major cause of alcohol-related incidents late at night. There are examples of lockout programs in operation in locations throughout Australia, such as in Ballarat and Bendigo in Victoria, and across Queensland, where a 3.00am lockout now applies to all late-night licensed premises. The Victorian government has also trialed a 2.00am lockout throughout four inner-city municipalities of Melbourne. The NDRI reports(36) that, as yet, there is limited formal evidence of the effectiveness of lockout programs, in part because they often occur as one element within a range of programs aimed at reducing late-night alcohol-related problems (for example, CCTV cameras, street lighting, public transport, police presence).

While they are not usually focused solely on issues that relate to the physical availability of alcohol, **community-based prevention** programs have become increasingly popular in recent years because of emerging understandings of how environmental and social conditions contribute to alcohol problems.(7) A detailed discussion on the range and scope effects of community based programs is not provided here, but can be obtained elsewhere (see Loxley *et al.* 2007:(7) pp166–167).

4.3 Taxation and pricing

The price of alcohol clearly impacts on consumption patterns. There are more than 50 studies from around the world showing that when alcohol increases in price, consumption is reduced.(12, 39-42) The World Health Organization (WHO) is one of many international and national health organisations that strongly endorse the use of increased alcohol taxation (higher prices for alcohol products) as an effective preventative strategy to reduce alcohol-related harm.(62) At the same time, it is important to recognise that there is a complex relationship between price and consumption.(63, 64) Patterns of alcohol consumption can vary considerably according to individual factors such as the age, sex and income levels of the drinker. Other factors such as availability, the cultural setting, the marketing and image of the product are also important. Studies consistently show that lower socio-economic groups and people with limited disposable income (young people, Indigenous groups and heavy drinkers) are more directly impacted by the price of alcohol products. Higher income drinkers tend to drink more expensive alcohol, and while price may lead them to reduce their consumption marginally, they are also able to alter drinking preferences to cheaper alternatives.(65, 66) The nature of the alcohol product is also a key variable. An Australian study identified considerable variations in price elasticity (the amount that price needs to change before it impacts on consumption) for different alcohol products. It concluded that spirits are twice as price sensitive as wine and beer.(67)

Given the complexity of the relationship between alcohol price and consumption, increasing alcohol taxation does not necessarily lead to a linear reduction in the levels of alcohol-related harm. It is important that the relationship between the price of individual alcohol products and consumption amongst particular groups of drinkers is carefully modelled against known price elasticity and existing consumption patterns.



While increasing the price through taxation is likely to lead to a reduction in per capita consumption, increasing the price of individual products may not necessarily achieve this goal. In some cases, product-based changes can create opportunities for new products and drinking patterns that increase levels of harm. (68) In this context, it is important to recognise that the production costs of alcohol products vary considerably between product types (eg spirits are relatively inexpensive to manufacture compared to beer and wine products) which in turn has a bearing on the cost price to consumers.

Australia's alcohol tax system can best be understood as a constantly changing reflection of the history of alcohol consumption in Australia, and the status of various alcohol products. It also reflects changing powers of taxation between state and territory governments and the Australian Government. As a consequence, different products – wine, spirits, beer, ciders, fortified wines – are all taxed differently. The excise duties arrangements can generally be described as a **volumetric tax system**, because the amount of excise duty depends on the volume of alcohol contained in the particular product. Wine equalisation tax can be described as an **ad valorem tax system**, because the rate of tax depends on the value of the retail selling price of the particular product. Customs duties are a combination of both volumetric and *ad valorem* systems. GST is set at a fixed rate of 10% of the product price, on top of all other taxes (see Table 7).

Within some categories there are various concessions and exceptions. Smaller wineries, for instance, are largely exempt from their value added tax (the Wine Equalisation Tax) for all cellar door sales.

Recent estimates show that the Australian Government will collect over \$6 billion as a result of the production and consumption of alcohol during the 2008/09 financial year.(68, 4) However, a substantial disparity exists between the amount of tax revenue received by the Australian Government from risky drinking compared with the overall amount spent in attempting to prevent harmful consumption of alcohol. For example, it has been estimated that Australian adolescents (aged 12–17 years) spent approximately \$217 million on alcoholic beverages in 2002, netting the Australian Government approximately \$112 million in tax revenue.(69) This means that for every dollar spent on alcohol interventions aimed at adolescents, the government receives around \$7 in alcohol tax revenue.(69)

The current taxation rates translate into a wide variety of taxation per standard drink of alcohol (see Fig. 13). For those who argue that alcohol should be taxed according to the amount of alcohol in each product and container, the current system represents a massive distortion of this principle.

Table 7: Summary of the types of alcohol taxes applied by category of alcohol product

	BEER	SPIRITS & RTDS	WINE	CIDER
GST	Yes	Yes	Yes	Yes
Excise duty	Yes	Yes	No	No
WET	No	No	Yes	Yes
Customs duty (ad valorem)	No	Yes (imported)	Yes (imported)	No
Customs duty (volumetric)	Yes (imported)	Yes (imported)	No	No

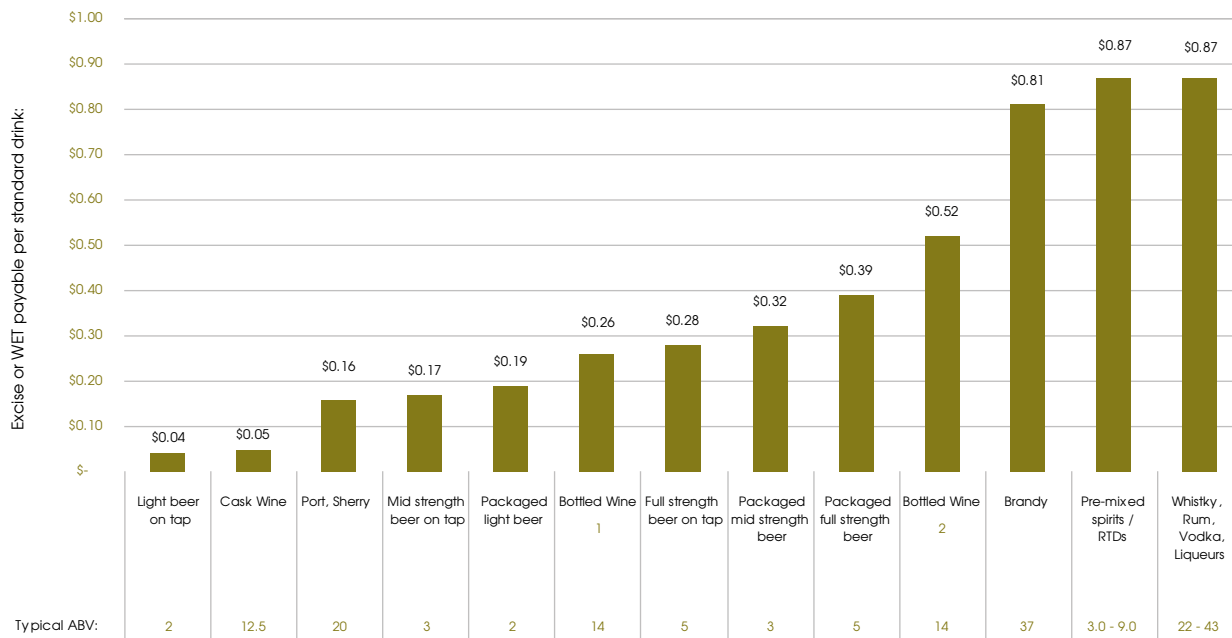


Figure 13: Tax payable per standard drink* of alcohol, various products, Australia, as at 1 August 2008*

Note: *Includes a 1.15% ABV excise-free concession for beer. WET payable per standard drink of wine is based on a four-litre cask of wine selling for \$13 (incl. GST) ('Cask Wine'), a 750ml bottle of wine selling for \$15 (incl. GST) ('Bottled Wine 1'), a 750ml bottle of wine selling for \$30 (incl. GST) ('Bottled Wine 2') and a 750ml bottle of port selling for \$13 (incl. GST) ('Port, Sherry'). A standard drink is equal to 0.001267 litres or 10 grams of pure alcohol.

As noted above, Australia has been through a continuous process of change in relation to the taxation and pricing of various alcohol products. There are three changes that are particularly interesting to note. In the late 1980s, states and territories adopted various forms of licensing for all alcohol sales. As part of this system, most jurisdictions offered low-alcohol beer (less than 3.5% alcohol by volume) for a significant concession in fees. The license fee concession translated into cheaper low-alcohol beer and, in combination with intense market competition in the beer market and the introduction of harm-reduction measures such as random breath testing, created an ideal environment for low-alcohol beer. Producers recognised the benefit of investing considerable developmental and marketing investment into low-alcohol beer.

As a consequence, low-alcohol beer increased its sales very significantly and captured approximately 20% of the total Australian beer market.(70)

The Northern Territory's 'Living with Alcohol' program provides another example of how changes in price through government taxation increases contributed to a reduction in per capita consumption. In 1992, the Northern Territory government used a **hypothecation** approach by placing a levy of 5 cents per standard drink on the sale of alcohol products with more than 3% alcohol by volume and used the revenue to fund a range of alcohol-prevention measures in the territory. (71) Evaluations of the 'Living with Alcohol' program found that the increase in price had contributed to a major reduction in the level of alcohol-related harm within the Northern Territory.(72, 73)

Over the last 15 years, there have been a series of changes in the level of excise and taxation applied to various forms of the ready to drink (RTD) product segment of the Australian alcohol market.



These changes have resulted in major shifts in drinking patterns across Australia, particularly in relation to brown spirit pre-mixed drinks (mostly around 5% alcohol by volume in 375ml cans) and white spirit pre-mixed bottled drinks (mostly around 5% alcohol by volume in 375ml bottles). With each price change, sales of these RTDs have increased or decreased quite significantly. While there is considerable evidence that these increases and decreases in sales represent shifts in product preferences (market share) rather than shifts in per capita drinking, the patterns of consumption have clearly been directly influenced by taxation and pricing. There is substantive evidence that the higher the price, the lower the consumption of these products, and the lower the price, the higher the consumption of these products. Perhaps just as importantly, the shifts in consumption patterns are more marked amongst the young and lower social-economic groups.(2, 68, 74)

The principle of alcohol taxation reform most often discussed by public health advocates is usually that of applying excise taxes to all categories of alcoholic beverages. That is, taxing the beverages on their alcohol content, as a mild discouragement of consumption. Along with taxation reform of this kind, there have been calls to raise the price of the cheapest forms of alcohol. This is referred to as the **floor price of alcohol**. Given that price is being used as the lever, it is the floor price that should be given more attention in order to achieve a real shift in per capita consumption, rather than just product preference. Within this context, it is important to acknowledge that the impact of any increase in the floor price for alcohol will impact more on young people, Indigenous communities, heavy drinkers and lower socio-economic groups.

It appears that the most likely model that can effectively reduce alcohol-related harm would be based on an across-the-board excise model that also includes regulating the floor (minimum) price, especially with regard to small containers. The excise tax could be scaled within different product types to

ensure there were strong financial incentives for the production of lower alcohol products (for example, low-strength beer, wine and RTDs), and so that the highest-risk alcohol products (i.e. spirits, which can more easily cause overdose) are taxed at an appropriately higher rate. In combination with a volumetric taxation system, in which all products are taxed according to alcohol content, all products could effectively have a floor price based on their alcohol content in a 300ml container.

Modelling this alcohol taxation system would be a very challenging exercise, particularly when health advocates have very limited access to actual sales data. As noted above, competing in the alcohol market requires extensive market testing and monitoring. This generates a level of detailed information that is not available to health researchers and policy makers. Perhaps just as importantly, this model would have a negative impact on some segments – particularly cask wine and cider – while advantaging other market segments – spirits and spirit-based RTD products. It would be very difficult to gain broad political support for such a model, given the level of public and political opposition from powerful alcohol producers. There has been some modelling undertaken that considered a range of alcohol taxation scenarios that would move the alcohol excise and taxation system closer to a true volumetric base, while remaining revenue neutral within each market segment. These models are publicly available, but have attracted limited support as they increase the price of cask wine and ciders while more expensive wines are reduced in price.(36) Until public health researchers and advocates have access to accurate sales data, and economic modelling can be implemented on the combination of floor price and a more volumetric approach to alcohol taxation, it is difficult to strongly put forward a particular model. At the same time, there is a substantive history in Australia that illustrates the danger of changing taxation levels of particular products without considering the implications both on consumption patterns and the development and marketing of alternative alcohol products.



4.4 Drink-driving countermeasures

Drink-driving laws and the associated programs of enforcement and social marketing are considered to be one of the great public health success stories of the late 20th century. In Australia, state and territory laws allow a Blood Alcohol Content (BAC) of up to 0.05% while driving for full licence holders, 0.00% for learner drivers and 0.00 per to 0.02% for provisional drivers, depending on the state or territory. Those who operate commercial aircraft, public or heavy vehicles, commercial vessels, machinery and mobile plant or farm equipment must observe the BAC restrictions required by their employer, as well as those required by law. For most adults, drinking no more than two standard drinks on an occasion will maintain their BAC below 0.05%. The evidence for the deterrent effect of such laws is strong, although the effects can erode over time and hence some countries have continued to **lower BAC limits**.⁽¹³⁾ From the 1970s, Australian states world leaders in driving down rates of drink-driving through random breath tests and other means.

There is some evidence, albeit tentative, that having lower **BAC limits for young drivers** reduces the risk of road fatalities, especially if the BAC limit is 0.00%.⁽⁷⁾ More broadly, there is good evidence that lower BAC limits, delayed access to full licence and curfews for young drivers can be effective in reducing drink driving among young people; **graduated licensing schemes** can potentially incorporate all of these measures within a single system.⁽¹³⁾

Random breath testing (RBT) has been shown to be effective in several countries, including Australia, in reducing road crashes, injuries and fatalities.⁽⁷⁾ The defining feature of RBT is that any motorist at any time may be required to take a breath test, and there is nothing they can do to influence their chances of being tested.⁽¹³⁾ Research suggests that there is a strong tendency for motorists to comply with drink-driving laws in jurisdictions that use RBT programs because of the *uncertainty* about the real risk of detection.⁽¹³⁾ Herein lies part of

the impressive cost effectiveness of random breath testing. RBT is considered a superior method of enforcing drink-driving laws than **sobriety checkpoints**, which only check drivers who are judged to have been drinking.⁽¹³⁾ In Australia, creating the public perception that there is a high chance of being caught drink driving through RBT has been achieved by a combination of high-visibility policing (road blocks, 'booze buses') and frequent social marketing campaigns that emphasise the likelihood of drink drivers being detected.⁽⁷⁾

Among the range of punishments for drink driving, the penalty that appears to have had the most consistent impact is **licence suspension**.⁽¹³⁾ Increasing the severity of fines and imposing penalties such as imprisonment for drink driving have not been shown to result in reduced rates of drink driving or car accidents.⁽¹³⁾ However, it is estimated that up to 70% of people who lose their licence continue to drive while unlicensed, as the risk of apprehension is relatively low.⁽⁴³⁾ The major concerns with disqualified drivers continuing to drive are that it undermines the effectiveness of licence suspension and is also linked to a range of other high-risk behaviour such as repeated drink driving and speeding.⁽⁴³⁾ Court diversion of drink drivers to educative and **mandatory treatment** interventions and the incapacitation of vehicles using **ignition interlock devices** are regarded as effective means of increasing compliance with licence suspension and reducing recidivism.^(7, 13)

While there is no evidence that on-premise designated driver programs produce negative effects, the impact of such programs is very modest and even with concerted promotions they only produce a small positive effect.⁽¹³⁾ An Australian review of these schemes was somewhat more supportive, pointing to research findings that the programs do have some positive influence on the behaviour of young people in selecting a sober driver, and that given the cost of such programs is usually borne by licensed premises, there is no opportunity cost in recommending such schemes.⁽⁷⁾



4.5 Treatment and early intervention

This paper considers treatment and early intervention as essential components of a preventative approach to the harmful consumption of alcohol. While treatment and prevention are traditionally viewed as separate and sometimes unrelated activities, it is critical that they be embraced as part of a holistic approach to tackling alcohol problems from a public health perspective. While treatments are primarily designed to serve the needs of individuals, there are a number of ways that treatment can also have a positive impact at a whole-of-population level:

- By raising public awareness of alcohol problems
- Influencing national and community agendas
- Involving health professionals in advocacy for prevention
- Providing secondary benefits for families, employers and road users.(13)

Brief interventions in primary health settings. For early-stage alcohol problems, brief interventions are consistently identified as a key ingredient in a comprehensive alcohol-prevention strategy because they are regarded as relatively inexpensive, they take very little time and they can be implemented by a wide range of health and welfare professionals.(7) Their benefit as preventative measures arises from the relative effectiveness in treating early-stage problem drinking, obviating the need for later more intense and costly treatment.(43) Brief interventions are designed to motivate high-risk drinkers to moderate their alcohol consumption, and typically involve one to three sessions before or soon after the onset of problem drinking.(13)

In Australia, brief interventions, as yet, are a relatively untapped opportunity, due in part to the need for greater recognition of the role that the primary health workforce can play. (43) Efforts during the 1980s and early 1990s to introduce more systematic screening, early identification and potentially brief or extended responses were variously tried.

These included the Coordinator of Alcohol and Drug Education in Medical Schools (CADEMS) that supported curriculum development for undergraduate medical students, a range of General Practice trials (especially in New South Wales, sometimes in association with other specific interventions including tobacco and even efforts to develop a combined risk-screening instrument for a number of conditions) and studies of the use of screening instruments (especially AUDIT) in hospital settings. Follow-up has been patchy, and even where the uptake and utility under experimental conditions was promising, the longer term effort and cost required to achieve widespread involvement has not been sustained. With a sense of déjà vu, the authors note a recent study of the effectiveness of brief interventions in hospital emergency departments, which suggests that these can potentially reduce subsequent alcohol-related injuries significantly.(75) For assessments and brief interventions to become part of routine practice of doctors, nurses and other health professionals, an approach at the health system level accompanied by funding and promotion is needed. It is unrealistic to expect overstretched health service providers to implement brief interventions without reimbursement or other recognition.

While this paper especially addresses primary prevention, it is worth noting that there remains a serious lack of accessible and available evidence-based treatment services for later stage alcohol dependence and other alcohol-related disorders across Australia (in private and public as well as in city and remote locations). With a still evolving specialist clinical workforce, there remains a relative vacuum for training and professional development at senior clinical levels, and it is this group that ultimately set the standard and nature of practice in any field. A comment from a senior clinician on the more recent development of Medicare support for private practice GPs and clinical psychologists is pertinent: *'it means that I get all these patients treated under the mental health items with fundamental alcohol-related problems where alcohol was not properly managed'*.



Workplace interventions. Australian workplaces are another setting with great potential for brief interventions with at risk drinkers. There are two main rationales for workplace interventions with regard to the harmful consumption of alcohol: to improve productivity; and to improve workplace safety.(7) In the Australian context, approaches to workplace alcohol issues are influenced by occupational health and safety laws and policies, and devising prevention strategies must be considered in this context. Historically, alcohol problems in the workplace have been dealt with through employee assistance programs (EAPs) and employers' policies on alcohol and drug use; however, there has been insufficient research to determine the effectiveness of EAPs in responding to and/or preventing alcohol issues in the workplace.(7) Nonetheless, EAPs do provide the potential opportunity for interventions that are known to be effective, such as brief interventions for high-risk drinkers. A recent study of alcohol consumption by Australian workers and the impact on absenteeism has pointed to the need for workplace education to influence young employees' attitudes and behaviours regarding alcohol use.(76) The study also suggests that there is a need to take a whole-of-workplace approach when designing and implementing prevention strategies that target both 'problem drinkers' and workers who drink at short-term risk levels, even infrequently, because the latter have an elevated risk of alcohol-related workplace absenteeism.(76) Others have pointed to the need for addressing structural factors in the workplace as a more sustainable prevention measure, such as reducing stressful working conditions that may lead to health-damaging behaviour such as the harmful consumption of alcohol.(77)

Alcohol problem treatment. Internationally, and particularly in Australia, the evidence base with regard to the treatment of alcohol problems is very well developed and is now at the stage of determining what is best practice rather than attempting to determine if treatment can work.(7) Effective alcohol treatment

options include motivational interviewing, brief interventions, social skills training, community reinforcement approach, relapse prevention and some aversion therapies.(7) There is evidence that **mutual help** programs such as 12-Step Facilitation Therapy, which encourages attendance at Alcoholics Anonymous (AA) meetings, are particularly effective for severely dependent drinkers with low levels of social support.(7) Although popular and widely used, there are also treatments that have little evidence of efficacy, including insight-orientated psychotherapy, confrontation counselling, relaxation training, general 'alcoholism counselling', education and milieu therapy.(7) **Pharmacotherapies** for alcohol dependence include disulfiram, naltrexone and acamprosate. Reviews have found that naltrexone and acamprosate are the safest and most effective of the three pharmacotherapies in the long and intermediate terms, respectively.(7)

Thiamine supplementation. A unique preventative measure to address the risk of serious brain damage from thiamine deficiency (known as Wernicke-Korsakoff's syndrome) that can result from heavy consumption of alcohol over many years, along with poor nutrition, is thiamine supplementation. Since 1991, all baking flour in Australia has been supplemented with thiamine as a universal method to increase thiamine levels in the diet of at risk populations.(7) This is included here as an example of a preventative measure that requires ongoing consideration, as there has since been advocacy for the removal of supplements (including thiamine) by the pure food advocates and there is concern that the reach of thiamine in bakers flour might not be the most cost-effective population measure in preventing this condition.(78)

Since the 1980s, **sobering-up centres** have been established in many parts of Australia, particularly Indigenous communities, as humane forms of care for publicly intoxicated individuals, and as an alternative to individuals being arrested and held in police cells and watch houses.(34)



However, there have been very few evaluations of sobering-up centres, despite their popularity in Australia.(79) In many ways, sobering-up centres function primarily as a broad harm-reduction measure, rather than as a treatment program. As Brady *et al.* describes them,(80) sobering-up centres are not a detoxification centre, nor are they aimed at long-term rehabilitation; rather, their role is to keep people out of police custody to reduce alcohol-related harm and to offer practical care in a safe environment for a limited time, including protection, shelter and food. Nevertheless, they could provide an opportunity for interventions that can be effective.

Sometimes related to these are **night patrols**, which are a particularly common alcohol harm-reduction strategy in many Indigenous communities.(7) Night patrols provide transport to safe locations for intoxicated persons, particularly in remote areas.(7) Evaluations of the effectiveness of night patrols, on their own, as an intervention is somewhat equivocal, although they have been rated as being effective in communities in reducing alcohol-related violence and getting intoxicated people off the streets.(7)

4.6 Altering the drinking context

Because drinking takes place in a social, cultural and community context, it follows that the harmful consumption of alcohol or the harmful consequences of this may be prevented or ameliorated through strategies that modify this context.(13) Such harm-reduction measures are important elements of an overall alcohol policy, as they are generally more socially and politically palatable. However, harm-reduction measures should not be considered as an equal substitute for the measures known to be most effective, as measures that aim to alter the drinking context are comparatively under-evaluated and generally possess less potential for reducing alcohol-related harm.(13)

It is clear that effective law enforcement is the key ingredient to ensure the efficacy of strategies that aim to alter drinking contexts as a way of preventing the harmful consumption of alcohol. While all Australian jurisdictions do have **bans on serving intoxicated persons and underage persons**, it is the extent to which these laws are adequately enforced that determines their effectiveness. Similarly, although very popular, the effectiveness of **responsible service of alcohol** (RSA) programs (also referred to as responsible beverage service, RBS) is also contingent on proper enforcement.(36) Without concerted efforts by police and/or liquor licensing authorities to enforce existing liquor laws, the imposition of RSA policies and/or training, while potentially raising awareness of relevant issues, has limited impact on the behaviour of servers or intoxication levels of patrons.(36) When highly publicised, the threat of substantial financial penalty has been shown to be particularly effective at motivating behaviour change among licensees, which has in turn resulted in reduced levels of alcohol-related harms, but it is not clear whether such financial penalties remain effective in the long term without frequent and highly visible examples of enforcement.(36) There is evidence of RSA programs being effective when they include a mandatory component combined with effective enforcement.(13) While mandatory server training has led to an increase in the number of servers undertaking training, program quality and content differ significantly between jurisdictions, and the high mobility of the workforce makes it difficult to sustain and monitor.

Mosher *et al.* assessed training programs offered by states and territories that have either mandatory or incentive-based laws, and found that the quality of programs is generally low, with only two jurisdictions meeting minimum standards.(81) A further criticism of RSA training programs has been that they focus solely on training servers, and do not include a more comprehensive community plan to address wider environmental issues, a factor that limits their potential.(82) To date, only a limited



number of RSA training programs have been evaluated in Australia.(36) In addition to training bar staff in the responsible service of alcohol, there have also been programs designed to train staff in **managing aggressive behaviour**, given the reality that some patrons may have become already intoxicated elsewhere and that some aggressive behaviour may not be necessarily alcohol-related at all.(13) There have been very few evaluations of such programs, although there is evidence that they can improve staff and patron interactions generally, but the long-term sustainability of these improvements relies on maintaining training and standards of practice.(13)

Proactive policing or **intelligence-led policing** has been successful in some parts of the world and has been partially adopted in some Australian jurisdictions.(13) It involves monitoring alcohol-related incidents in and around licensed premises, combined with regular police visits to the licensed premises that are most often linked to alcohol problems. For example, the New South Wales police have adopted a system of enforcing liquor laws through the collection of data such as feedback to police about alcohol-related crimes that have followed drinking at a specific licensed premises.(83) Known as the 'Alcohol Linking Program', the intelligence-led enforcement system has been shown to reduce alcohol-related crime, and similar approaches are now being trialled and implemented in other jurisdictions.

Voluntary codes of bar practice typically take the form of '**liquor accords**' in Australia. The emergence of liquor accords as a means of reducing alcohol-related problems in late-night entertainment centres began in Victoria in the early 1990s, and since then there has been a rapid proliferation throughout several states.(36) Accords are local, community-based initiatives to involve licensees, other businesses, local government authorities, community representatives and police, but which are implemented and largely coordinated by the latter to reduce alcohol-related harm in the late-night drinking environment.(36)

There are many possible components of accords, such as RSA, drink discounting bans, trained security personnel, provisions of food, use of safe glassware and alcohol containers, and environmental modifications to reduce conflict and thereby reduce the risk of violence.(7) Few accords have been formally evaluated, and among those that have, most have been unable to demonstrate effectiveness in either the short- or (particularly) long-term reduction of alcohol-related harms.(36) The appeal of accords probably rests more on the development of local communication networks, the facilitation of local input, a sense of local 'control' and improving public relations through open negotiations than in the actual reduction of harm. Even so, improved communication and participation may also be perceived as desirable and worthwhile outcomes in some circumstances. Loxley *et al.* acknowledge that there is no doubt that accords can be an effective vehicle for introducing some harm-reducing practices into licensed drinking venues; however, it is recommended that voluntary regulation such as this is accompanied by effective law enforcement.(7)

The **promotion of alcohol-free events**, while popular in many countries, including Australia, has not been found on its own to be effective in reducing alcohol problems.(36) Alcohol restrictions for large sporting and leisure events have usually been implemented as part of a range of initiatives, making it difficult to determine their specific impact.(36) Based on evidence that some injuries from alcohol-related violence were linked to the use of drinking glasses and bottles as weapons, a number of licensed premises around the world now serve alcohol only in **toughened glass** or **plastic containers**.(13) However, the soundness of this approach has been called into question by a study that found that injuries to bar staff actually increased when toughened glass was used.(13)

Providing food service on premises that serve alcohol, as a way of encouraging eating while drinking and hence reducing the effects of alcohol, is a popular element in liquor accords.(7)



However, the specific contribution of making food available on licensed premises as a way of preventing intoxication has not been determined, and in the case of certain foods (for example, salty snacks) there may actually be a risk of the opposite effect on alcohol consumption.(7)

Community mobilisation has been used to raise awareness of problems associated with on-premises drinking, develop specific solutions to problems and pressure licensees to take responsibility for some of the impacts on the local community, such as noise, litter and anti-social behaviour.(13) There is no set formula by which community action projects operate, as each project has differing aims and objectives, often in response to localised problems.(36) Studies overseas support the view that when community mobilisations are implemented as comprehensive, evidence-based strategies and are well funded, they can influence server behaviour, drinking behaviour and levels of alcohol-related harms associated with licensed premises.(36) Although some relatively small community mobilisation projects are currently under way in Australia, results from evaluative studies are yet to be published.(36) In general, community mobilisation approaches have at least a temporary effect on licensed premises in terms of serving practices and patron behaviour but in the longer term they often tend not to be implemented in a systematic way, and prove to be expensive and difficult to sustain.(13)

4.7 Regulating promotion

Alcohol marketing and promotion is a global activity, with the largest corporations promoting their products across the world.(13) Marketing strategies include an integrated mix of advertising on television, radio, print media, point of sale promotions, product design (including the packaging and naming of alcohol beverages) and the internet. Sponsorship of sports and cultural events is also a common marketing strategy used by alcohol companies, particularly in Australia. The key questions from a public perspective are:

- what is the impact of marketing and promotion on overall consumption and particularly the misuse of alcohol in the community?
- what are the most effective measures for preventing the adverse impacts of alcohol marketing and promotion?

Total alcohol advertising expenditure in Australia in 2007 was reported to be \$128 million (see Table 8). However, this figure is highly conservative, given that it generally relates to the advertising of products rather than of alcohol outlets, for which alcohol advertising expenditure is now very significant. Nor does it include sponsorship, 'below the line' advertising or internet advertising, the latter being a significant growth area in recent years. In Australia, the main sectors in which alcohol advertising expenditure occurs, and through which the greatest exposure is achieved, are through commercial television advertising (38%) and outdoor advertising (32%). Globalised alcohol manufacturers (for example, Diageo; Pernod Ricard Pacific) are among the biggest spending advertisers in Australia. The amount spent on advertising by spirits and wine producers combined, now equals that of the traditionally dominant beer market in Australia, reflecting an increasingly competitive alcohol beverage market.



Table 8: Alcohol advertising in Australia by sector, advertiser and beverage category, 2007

SECTOR	PERCENTAGE SHARE	RANK	ADVERTISER	\$ MILLIONS	ANNUAL CHANGE	BEVERAGE CATEGORY	PERCENTAGE SHARE
Metro TV	33%	1	Diageo	19.1	29%	Beer	47%
Regional TV	5%	2	Carlton & United Beverages	14.4	-24%	Spirits	26%
Metro press	5%	3	Tooheys Brewery	14.0	10%	Wine	21%
Regional press	1%	4	Boag J & Son	9.9	13%	Premix / cider	6%
Magazines	14%	5	Pernod Ricard Pacific	6.9	60%		
Radio	5%	6	Beringer Blass Wine Estates	5.3	93%		
Cinema	5%	7	Southcorp Wines	4.8	191%		
Outdoor	32%	8	Suntory	4.8	421%		
Direct mail	1%	9	Carlton Special Beverages	4.7	238%		
		10	Heineken	3.9	36%		
			Others not in top 10	39.9	-5%		

Source: Nielsen Media Research AdEx 2008

The impact of advertising on individuals can be seen as having both immediate effects, such as influencing decision making with regard to brand preference, as well as longer term effects such as reinforcing pro-drinking messages.⁽¹³⁾ In this way, it is both the content and frequency of exposure to advertising that can have an impact on individuals' attitudes and behaviours. The impact of alcohol advertising on young people is an area where there has been considerable research, but of somewhat poor quality, yielding conflicting results that range from positive associations between young people who have been exposed to and/or enjoy alcohol advertising and an increased risk of harmful consumption of alcohol, to negative associations or inconclusive results.⁽⁷⁾ Numerous studies have found a link between alcohol advertising and alcohol-related knowledge, beliefs and intentions of young people.⁽⁸⁴⁾

Unlike tobacco advertising, which was banned in Australia in 1995, there are no alcohol **advertising bans** in Australia, although some restrictions, including **advertising content controls**, do apply (see further below). In Australia, alcohol advertising is subject to a number of different laws and codes of practice.

The Australian Association of National Advertisers Code of Ethics covers general advertising issues. Other applicable laws and codes include:

- The Trade Practices Act
- State and territory fair trading legislation
- The Commercial Television Industry Code of Practice
- The Commercial Radio Code of Practice
- The Outdoor Advertising Code of Ethics.

The Commercial Television Industry Code of Practice states that advertisements can only be shown during M, MA or AV classification periods. However, on weekends and public holidays, alcohol advertisements can be shown as an accompaniment to the live broadcast of a sporting event. Alcohol advertising is covered in detail by the Alcohol Beverages Advertising Code (ABAC) Scheme. The main aims of the scheme are to ensure that alcohol advertising presents a responsible approach to drinking, and does not have appeal to children or adolescents. Among other rules in the code, the administration of the following is often questioned by community members: 'Advertisements for alcohol beverages must not depict the consumption or presence of alcohol



beverages as a cause of or contributing to the achievement of personal, business, social, sporting, sexual or other success' (ABAC 2008, Clause C (i)).(85)

The ABAC Scheme is funded and administered entirely by the alcohol industry. Commonwealth and state and territory governments are involved through one government representative on the ABAC Management Committee.

Despite the ABAC Scheme's rules, which discourage advertising that has 'strong or evident appeal to children or adolescents', research shows that a substantial amount of alcohol advertising is communicated to young people. For example, several advertisements for alcoholic beverages screened on television in metropolitan Melbourne were found to be more likely to reach 13- to 17-year-olds than adults (see Table 9).

Table 9: Advertising on metro Melbourne television, year to March 2005

PRODUCT	TOTAL ANNUAL SPEND	FREQUENCY OF ADS	RELATIVE EXPOSURE (OF 13-17-YEAR-OLDS VS 18-29-YEAR-OLDS)
Heineken Lager	\$ 94,000	110	1.12
Cougar Bourbon	\$ 45,000	103	1.04
Archers Spri Schnapps	\$ 57,000	110	1.04
Bundaberg Rum Dry & Lime Mix	\$ 36,000	88	1.06
Orlando Jacobs Creek Sparkling Rose	\$ 89,000	34	1.11

Source: King, Taylor and Carroll (2005)(86)

As a self-regulatory scheme, ABAC's effectiveness largely depends on the independence of its complaints body with the powers to sanction.(43) Recent research has revealed that less than three in 10 (28%) people surveyed reported an awareness of restrictions or regulations covering the advertising of alcohol, in terms of what can be

said or shown. It is estimated that only 3% of the total adult population are aware of the existing ABAC scheme and know what it relates to.(87) Among the 30% of people who reported being concerned about any alcohol advertising, only 2% had made a formal complaint. Some of the reasons why those who were concerned did not make a complaint included the belief that it would not achieve anything (30%), not having time (25%) and not knowing who/how/where to complain (15%). ABAC currently has no powers to sanction advertisers who breach the code rules; however, a Senate Committee inquiry currently under way is considering proposed federal legislation that would introduce sanctions on advertisers who breach the code, which would be determined by an independent adjudicating panel.(88)

In 2003, the Ministerial Council on Drug Strategy considered a report on the effectiveness of the ABAC Scheme that identified the following issues of concern:

- The current system does not address public health concerns about alcohol advertising and use. In particular, most complaints about alcohol advertising are dealt with under the general advertising complaints resolution system rather than the alcohol-specific system.
- The high dismissal rate for complaints about alcohol advertisements heard by the ASB does not engender community confidence in the complaint system and may discourage people from making complaints about alcohol advertisements.
- The general public is largely unaware of the complaint resolution system and, in particular, how to make complaints.
- The system lacks transparency. In particular, there is insufficient reporting of the outcomes of complaints.
- The current system does not apply to all forms of advertising; for example, packaging, electronic advertising, sponsorships, point of sale advertising and promotions.



- The effectiveness of the current system is compromised by the amount of time taken to resolve complaints (MCDS 2003, unpublished).

While some of these concerns have been addressed, pressure remains to move to a more tightly regulated advertising environment with strict government controls. The WHO recently recommended that governments be supported:

- to effectively regulate the marketing of alcoholic beverages, including effective regulation or banning of advertising and of sponsorship of cultural and sports events, in particular those that have an impact on younger people
- to designate statutory agencies to be responsible for monitoring and enforcement of marketing regulations
- to work together to explore establishing a mechanism to regulate the marketing of alcoholic beverages, including effective regulation or banning of advertising and sponsorship, at the global level.

One of the most formidable obstacles to effective education and persuasion strategies regarding alcohol (which are discussed in the next section below) is product advertising by the alcohol industry that intentionally promotes pro-drinking messages to the general population, much of which also reaches young people. In response, the governments of some countries have sponsored **counter-advertising programs**. (13) These might include public services announcements, or warning messages within actual product advertisements. However, studies suggest that counter-advertising usually has only limited effectiveness, often because it is communicated at low frequencies and in poorer quality productions compared to alcohol beverage advertising.(13) In contrast, counter advertising in the tobacco field is of proven effectiveness, primarily because in that context hard-hitting messages were possible (essentially that the tobacco industry was not in business for the consumer's good). Counter advertising may be a more politically realistic option than banning advertising altogether, and should

be strongly supported from a public health perspective, but it is important that its message not be compromised. Although rare, there are examples of well-planned and implemented counter-advertising programs that have had some success, particularly in building support for public health-oriented alcohol controls,(13) and there is very strong evidence from other public health areas such as tobacco about the value of such approaches.

4.8 Education and persuasion

International reviews of education and persuasion strategies suggest that even with adequate resources, such approaches have limited potential for success on their own.(13) Part of the reason for this is the counter effect of powerful forces that underpin unsafe and unhealthy drinking cultures, such as the price, availability and promotion of alcohol products. Recent Australian research for the development of a national alcohol social marketing initiative reports that 'the challenge for communication is that intoxication is closely linked to alcohol per se. When we simply asked participants about their earliest memories in relation to alcohol there was an overwhelming tendency to leap to their first drunk experience. Further, these experiences were recalled with a sense of pride and nostalgia, even though the stories inevitably involved some embarrassment.'(89) A key element to the success of social marketing in the public health area is effective integration with and reinforcement by other complementary strategies.(7) For instance, the success of **social marketing** in promoting quitting smoking and road safety, including anti-drink-driving campaigns, is indicative that education and persuasion strategies can be effective when coupled with other measures such as support services, changes to the environment, regulation and enforcement.

Throughout the world, **alcohol education in schools** is an enormously popular approach to addressing the issue of harmful consumption of alcohol among young people. The traditional alcohol education programs that are based



on an informational approach, while still very common, have not been shown to prevent or reduce the harmful consumption of alcohol by young people, and in some cases have actually been counterproductive by stimulating an interest in drinking among young people.(13) In recent years, there has been a shift towards normative education, which aims to correct young people's perceptions about their peers' drinking and thus de-normalise the harmful consumption of alcohol.(13) While this makes intuitive sense, it has been found that such school-based educational interventions, in general, produce only modest results that are short-lived unless accompanied by ongoing booster sessions. Importantly, given there are considerable risks involved in school-based education, it has been recommended that investment in such programs be accompanied by a proportionate investment in evaluation.(7) There are some examples of sound outcomes but these are relatively unusual. These generally involve whole-of-community efforts and they are usually associated with a close evaluation that ensures they are implemented (with modifications through feedback) as planned. In Australia, these include the School Health and Harm Reduction Project (SHAHRP) in Western Australia(43) and the Gatehouse Project in Victoria, whose primary target was reduced school bullying but where the side benefit was a comparative reduction in the use of tobacco and alcohol.(90) Related to alcohol education programs for school students are **parent education** programs. While some reviews cite promising signs of effectiveness, in general there remains a lack of research to fully determine the value of such programs.(7)

Low-risk drinking guidelines have been adopted in many countries, including Australia, to provide advice on the health risks and benefits of drinking at various levels for the general adult population, and for particular sub-groups. Despite their popularity, there is very little research that demonstrates the effectiveness of guidelines.(13)

However, guidelines do potentially fulfil an important function as supporting information for other measures known to be effective, such as brief interventions in primary care, and as the basis for health promotion messages and social marketing campaigns. In Australia, the current alcohol guidelines.(91) are under review. New draft guidelines prepared for public consultation are due to be finalised and released in late 2008. The new draft guidelines have been informed by updated modelling on the health risks of drinking, which have produced new estimates of the lifetime risks of alcohol-related harm. Emerging evidence also indicates that previous studies claiming the significant health benefits of alcohol consumption have tended to overestimate the effects. The consultation draft indicates the main changes are expected to include a new simplified, universal guideline level for alcohol intake for both short-term and long-term risks, a new guideline with special precautions for children and adolescents, and a new guideline for pregnant or breastfeeding women.(18)

Warning labels on alcohol products, while not required in Australia, have a high level of public support. Evaluations of alcohol warning labels are generally limited to the US experience, where labels were implemented in 1989. While there is some evidence of effects on knowledge and attitudes, there is no evidence that warning labels influence drinking behaviour.(92) By contrast, the tobacco labelling experience offers strong evidence that warning labels can be effective, not only in increasing information and changing attitudes but also in changing behaviour. These successes of tobacco warning labels suggest that alcohol warning labels should be graphic and attention-getting, should occupy a considerable portion of the package surface, and should involve rotating and changing messages.(92) Perhaps most importantly, they should complement and be complemented by a wider range of strategies aimed at changing drinking behaviour.