Identifying a framework for regulation in packaged liquor retailing

Report by Marsden Jacob Associates
for the National Competition Council

June 2005

Marsden Jacob Associates

Financial & Economic Consultants
www.marsdenjacob.com.au

Level 3, 683 Burke Road, Camberwell, Victoria 3124
Tel: + 61 3 9882 1600 Fax: +61 3 9882 1300
Contact: Dr John Marsden (john.marsden@marsdenjacob.com.au)
Chris Tikotin (chris.tikotin@marsdenjacob.com.au)

ISBN 0-9757067-8-0

Inquiries or comments on this report should be directed to:

Media and Communications Manager
National Competition Council
Level 9
128 Exhibition Street
MELBOURNE VIC 3000

Ph: (03) 9285 7474
Fax: (03) 9285 7477
Email: info@ncc.gov.au

An appropriate citation for this paper is:

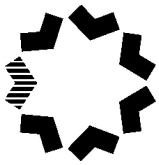
Marsden Jacob Associates 2005, *Identifying a framework for regulation in packaged liquor retailing*, Report prepared for the National Competition Council as part of the NCC Occasional Series, Melbourne.

The National Competition Council
The National Competition Council was established on 6 November 1995 by the Competition Policy Reform Act 1995 following agreement by the Australian Government and state and territory governments.

It is a federal statutory authority which functions as an independent advisory body for all governments on the implementation of the National Competition Policy reforms. The Council's aim is to 'improve the well being of all Australians through growth, innovation and rising productivity, and by promoting competition that is in the public interest'.

Information on the National Competition Council, its publications and its current work program can be found on the internet at www.ncc.gov.au or by contacting NCC Communications on (03) 9285 7474.

NATIONAL
COMPETITION
COUNCIL



Foreword

Alcohol is not just another product. Consumption of alcohol can be harmful to consumers, and can have significant effects on people other than the consumer, such that regulatory intervention is necessary[1].

The case for regulation of the sale of alcohol is clear even if some of that regulation will reduce competition in various markets. There is no conflict between appropriate regulation of alcohol sales and the National Competition Policy (NCP) commitments all Australian governments have entered into. From an NCP viewpoint, the question that arises in relation to regulation of sale of alcohol is not whether regulation is needed, but whether particular regulatory responses are properly directed at harm reduction and whether they work.

NCP obliges all Australian governments to review regulation that restricts competition and ensure any continued or new restriction is justified by an objective assessment that it serves the interests of the public.

Clearly, regulation that restricts competition but has little, if any, impact on the public interest is inconsistent with NCP. However regulation that successfully addresses the public interest but also restricts competition can be justified, so long as the impact on competition is minimised.

Well intentioned regulation can also be called into service by vested interests in pursuit of their own objectives. The nature and scope of regulation should not be allowed to expand and change, or be perverted, so it serves the interests of particular businesses, rather than that of the community as a whole. It is vital to ensure that regulation serves the public interest and is not harnessed to serve private interests to the detriment of the community. Where this is allowed to occur the costs of regulation to the community will be increased and the benefits to the public diluted.

In successive assessments of compliance with NCP commitments the Council has found various jurisdictions to have failed to meet their obligations in relation to the regulation of the sale of alcohol. A number of jurisdictions cling to regulation that has not been subjected to, or supported by, the public interest testing that NCP requires. Other jurisdictions have retained anticompetitive regulation, including "needs tests" and restrictions that discriminate between various outlet types. Needs tests provide for licensing authorities to consider the effect of an additional licence on the competitive interests of incumbent licence holders and allow incumbents to use objection procedures to frustrate new competitors.

To assist governments in developing polices and regulation in this area and in meeting their NCP obligations the Council commissioned Marsden Jacob Associates to consider the evidence on the effects of alcohol, and set out and examine options for regulation of alcohol sales that are likely to be in the public interest.

This report continues a series of occasional papers published by the Council. This paper is not a substitute for the public interest reviews of regulation required by NCP. Rather, the paper sets out a range of issues that should be considered when reviewing alcohol regulation.

---

[1] Gambling, tobacco, illicit drugs, and fatty and other foods that have deleterious effects on health raise some similar issues to alcohol consumption.

The report does not propose a remedy for the ills that misuse of alcohol causes, but it will aid in determining regulatory prescriptions that suit the particular needs of a jurisdiction.

Some of the research findings cited in the paper are challenging. It may be that what are clear public health based conclusions – less than one-third of Australian alcohol consumption, by volume, occurs 'in moderation' – are at odds with general public opinion, at least as evidenced by consumer behaviour.

The findings also challenge the general premise that promotion of competition in the sale of alcohol is in the public interest. Increased competition is likely to exacerbate problems but at the same time limits on competition will raise prices for alcohol irrespective of whether it is then consumed in a beneficial or harmful manner.

Simplistic "deregulation" of alcohol sales is unlikely to be in the public interest, and has never been promoted under NCP. Furthermore even when reforms properly focus on anticompetitive and discriminatory restrictions there is likely to be a need for complementary measures to address any adverse consequences of greater availability of alcohol, and enhanced enforcement of licensing conditions.

Consumers are entitled to the many benefits of competition. They are also entitled to the protection offered by appropriate regulation of alcohol. The task of those designing regulation in this area is to balance these two demands.

The Council commends this study as a resource for jurisdictions and for parties with an interest in this issue. It hopes that this contribution will assist jurisdictions in meeting NCP commitments by adopting regulatory responses that meet the public interest in regulating the sale of alcohol.

David Crawford
Acting President

John Feil
Executive Director

The report has been written by Dr John Marsden, Director of MJA, Chris Tikotin and Philip Jones. We wish to acknowledge the valuable expert assistance of Dr Alex Wodak and Dr Robert Ali who provided quality assurance regarding the public health aspects of the report.

Contact: Dr John Marsden (john.marsden@marsdenjacob.com.au)

Marsden Jacob Associates

Financial & Economic Consultants

Level 3, 683 Burke Road, Camberwell, Victoria 3124
Tel: (03) 9882 1600 Fax: (03) 9882 1300
www.marsdenjacob.com.au

Table of Contents

A. Introduction

1. Alcohol is a licit drug and its medical effects are well-defined and understood:

> *'Alcohol' is a generic name given to a series of organic compounds, most of which are highly toxic to humans. Only one type of alcohol – ethanol … - is fermented or distilled for use in beverages that are meant for human consumption.*
>
> *While alcohol works at the cellular and systemic level in the human body, its most immediate and readily apparent effects are on the brain. Alcohol is a psychoactive (mind-altering) drug, and is one of the most widely used drugs in the world.*
>
> (Alcohol Advisory Council 2001, p.159)

Consumers of alcohol value its consumption in its own right and as a social lubricant. From many aspects, alcohol is an ordinary commodity: produced by businesses, distributed by manufacturers and wholesalers, sold in both specialised and general retail outlets and consumed by a majority of the Australian population. The basis of competition policy is that – for ordinary commodities – promoting competition will sharpen commercial incentives to reduce costs and prices and to increase availability and consumption, and so increase society's welfare. However, alcohol consumption has long been identified with social problems and issues. As a result, societies have sought to influence, regulate and, on occasion, prohibit alcohol production, sale and consumption.

2. Regulation of alcohol use and supply occurs at the interface of two important areas of public policy for Australian governments – *competition policy* and *alcohol policy*.

3. The National Competition Council (NCC) has requested advice on an appropriate framework that might be applied when reviewing liquor regulation to arrive at best regulatory practice that balances minimising harm from alcohol consumption and achieving other relevant public interest objectives, including competition objectives. The Council has commissioned Marsden Jacob Associates (MJA) to advise and report on the above, with particular reference to the regulation of retailing of packaged liquor.

Terms of reference and conduct of review

4. The Terms of Reference request advice on:

   (a) the nature of harm arising from liquor consumption[2] and how this is affected by key regulatory questions, including restrictions on outlet numbers, hours of operation, outlet types, package sizes and product types;

   (b) other public interest objectives that may be relevant to a liquor retailing regulatory framework (such as the social cohesion provided by country hotels or sporting and similar clubs);

   (c) the regulatory approaches across jurisdictions, including alternatives recommended by reviews of current approaches; and

   (d) the regulatory approaches that best assist in meeting the public interest objectives of regulating liquor retailing, and any consequences for competition.

5. In undertaking this desktop review, MJA has examined a wide variety of documents, including:

   - The published health and economic literature on alcohol consumption, harm, interventions and regulation.
   - Relevant reports commissioned by state and national governments and the WHO.

6. MJA's review has been facilitated by the fact that the governments of most English-speaking democracies have also commissioned major literature reviews of the scientific evidence on alcohol consumption and impacts and (to a lesser extent) of regulation and regulatory interventions.

   The following few key documents stand out as the most relevant and authoritative with regards to this review:

   (a) *The prevention of substance use, risk and harm in Australia: a review of the evidence*, prepared for the Ministerial Council on Drug Strategy by the National Drug Research Institute for Centre for Adolescent Health, January 2004. (Commonwealth of Australia 2004)

   (b) *Alcohol: No Ordinary Commodity - Research and Public Policy*. New York, Oxford University Press (sponsored by the World Health Organization). (Babor, Caetano et al. 2003)

   (c) NSW Government (2004). *Outcomes of the NSW Summit on Alcohol Abuse 2003: Changing the Culture of Alcohol Use in New South Wales*, New South Wales Government. (NSW Government 2004)

   (d) National Expert Advisory Committee on Alcohol, *National Alcohol Strategy: A Plan for Action 2001 to 2003-04*, Commonwealth Department of Health and Aged Care, Editor. 2001, Commonwealth of Australia. (National Expert Advisory Committee on Alcohol 2001)

   (e) *Alcohol Harm Reduction Strategy for England* (March 2004), Cabinet Office. (Prime Minister's Strategy Unit 2004)

[2] Specifically, the consumption of (unopened) packaged liquor purchased in a retail context.

(f) *International Alcohol Policies: A selected literature review* produced by the Scottish Executive Central Research Unit (Sewel 2002), and followed-up by *Liquor Licensing and Public Disorder: Review of Literature on the Impact of Licensing and Other Controls / Audit of Local Initiatives* (Reid Howie Associates 2003).

(g) the CoAG *Principles and Guidelines for National Standard Setting and Regulatory Action by Ministerial Councils and Standard Setting Bodies.* (NCC 2004) This is based on the Competition Principles Agreement (Council of Australian Governments).

(h) State National Competition Policy legislation reviews.

(i) NCC assessments of compliance by states and territories with their obligations under the Competition Principles Agreement.

7. In undertaking this review, MJA's interpretation of the published health evidence has been assisted and reviewed by Dr Robert Ali (Director of Clinical Policy and Research, Drug and Alcohol Services Council, Adelaide) and Dr Alex Wodak (Director of the Alcohol and Drug Service, St Vincent's Hospital Sydney). Both are acknowledged leaders in the field of drug and alcohol research and policy in Australia.

Background

8. As noted in the Terms of Reference, all Australian governments regulate the retailing of liquor, with the stated intention of minimising harm from its consumption. They regulate in various ways, including by:

   - prohibiting certain members of the community (such as minors) from consuming liquor;
   - establishing requirements for the sale and serving of liquor;
   - restricting the number, type and trading hours of the premises permitted to sell liquor; and
   - tax and excise on alcohol

   Some measures affect competition in liquor retailing (such as the 'needs test' requirements that prevent new entry or provisions that discriminate between different types of responsible sellers). Others do not discriminate between sellers of liquor, and therefore have a negligible effect on competition (such as the prohibition on consumption by minors).

9. Prompted by the process of compliance with competition principles, all states and territories have undertaken reviews and most have amended their legislation and regulations relating to alcohol policy.

10. One area of particular concern repeatedly raised in NCC Assessments has been the licensing approach used by governments to assess applicants which involved so-called 'public needs' or 'proof-of-needs' tests.

> *Such a test restricts competition because it requires applicants for new licenses to demonstrate that a particular area is not already adequately served by existing outlets. In effect, the test operates to protect existing outlets from new entrants.*
>
> (NCC 2001)

11. Consistent with NCP, the NCC has promoted moving to a Public Interest Test approach for additional licensed outlets in defined localities.

> *A 'public interest' test for licenses that focuses on the social, community and health implications of a liquor license application is consistent with NCP. A test that focuses merely on the competitive interests of existing licensees is not.*
>
> *Under NCP, the public interest comes first. What is important is that the public interest is considered in terms of the whole community, rather than particular commercial interests.*
>
> (National Competition Council 2003)

A number of states have now implemented a variation of this, including Victoria. Box 1 outlines Victoria's approach to regulation of sale of alcohol.

Box 1 – A public interest test

The State of Victoria applies a public interest test to liquor licensing which addresses the public interest in alcohol regulation and seeks to minimise effects on competition.

Act: *Liquor Control Reform Act 1998*

Tests applied: Licensees must be over 18 years of age and not disqualified from holding a licence or BYO permit under the Act (s27).

Public interest considerations

Harm minimisation. Any person may object to the application of a packaged liquor licence on the grounds that the licence would be conducive to or encourage the misuse or abuse of alcohol (s38).
Amenity impact. Any person may object to a licence application on the grounds that the licence would be detrimental to the amenity of the area in which the licensed premises or proposed licensed premises are situated (s38).

- The amenity of an area is the quality that the area has of being pleasant and agreeable, such as: the presence or absence of parking facilities; traffic movement and density; noise levels; the possibility of nuisance or vandalism; the harmony and coherence of the environment; and any other prescribed matters (s3A).

No Needs Test. A licence application will not be rejected on the basis that there is insufficient need or demand to justify the granting of the licence (s38).

Supermarkets. Packed liquor may be sold in a supermarket if the person receiving the payment at the checkout is over 18 years of age (s11).

Restrictions: Ban on sales in certain premises. The Commission must not grant a license or BYO permit in respect of premises used primarily as: a drive-in cinema; a petrol station; or a milk bar, convenience store or mixed business (s22(1)).

Exemptions: Exceptions to s22 (ban on sales in certain premises). The Commission may, with the approval of the Minister, grant a license in respect of premises referred to above if the Minister is satisfied that the premises are situated in a tourist area or an area with special needs and that there are not adequate existing facilities or arrangements for the supply of liquor in the area s22(2)).

12. The current state of National Competition Policy reform progress is summarised in the Appendix, which outlines the NCC's recent assessments in this area. At the time of writing, four states are judged to remain non-compliant with the Competition Principles Agreement with regards to liquor retailing.

13. From a public health perspective, the existing regulatory regimes can be seen as not sufficiently restricting the availability of alcohol.

- Alcohol affordability has increased steadily and inexorably with growth in real per capita incomes over the post-war period. Furthermore, in Australia alcohol is relatively more affordable than other developed countries. Relative to cola, beer is cheaper in Australia than in any other country surveyed by the World Health Organisation (WHO) (Refer paragraph 84.).
- The physical availability of alcohol has been progressively and substantially liberalised across Australia with extensions to hours and days for opening of hotels, bars and retail outlets in all states over the past 50 years and especially in the past two decades. In addition there have been substantial increases in the numbers of licensed outlets (Loxley, Toumbourou et al. 2004).

  > *The physical availability of alcohol has increased markedly in Australia over the past two decades, as it has in most economically developed countries. Licensing laws have been continuously revised to simplify and streamline procedures for acquiring liquor licences, trading hours in all jurisdictions have been extended…*
  >
  > (Commonwealth of Australia 2004, p.36)

- Minimum ages for alcohol purchase have been lowered to 18 years in all Australian states and territories.
- Under-age drinking is common and increasingly prevalent. Also, under-age purchasing is common, indicating lax enforcement of licensing conditions for packaged liquor.

  > *… laws regarding service to intoxicated and underage drinkers are enforced intermittently at best.*
  >
  > (Commonwealth of Australia 2004, p.36)

A high alcohol price is one of the single most effective methods of reducing alcohol consumption and harms. Taxes and charges on alcohol are set by the Australian Commonwealth, rather than the states.

- Alcoholic beverages other than wine are taxed on the basis of alcohol content. In contrast, wine is taxed on an *ad valorem* basis. An unfortunate consequence of the differential method of taxation of alcohol is that cheap cask wine is relatively lightly taxed which encourages relatively higher consumption of such products by youth and other high-risk drinkers. (Refer paragraph 83).
- Past forms of regulation have become progressively less effective. Technological advancement has caused further changes, such as the increased mobility of the population. For example, a higher rate of car ownership decreases the effect of limiting the number of hotel or retail liquor outlets as a means of restricting availability of alcohol.

- Similarly new entry and competition in alcohol retailing and the shift to supply and sale by chains has seen an improvement in sales efficiency, economies of scale and purchasing and advertising power, much of which has flowed through to consumers in the form of lower prices, but these same factors have eroded the efficacy of previous limitations on supply that arose from inefficiencies in the sales and distribution systems. Paradoxically, more efficient supply arrangements have adverse implications for harm minimisation. Inefficient supply of course produces and economic loss for the whole community and is not just an industry specific issue.

14. From the perspective of competition policy, major problems arising with existing regimes for restrictions on alcohol availability have included:

- the allocation and restriction of existing licences to sell packaged liquor to particular classes of businesses only; and
- methods of implementing restrictions on the number and density of outlets and in particular 'needs tests' which allow existing incumbents to object to, and possibly, in effect, to veto new applicants.

However, the consequences of reforms related to competition policy also raise public health concerns since:

- Greater competition has promoted strategies that increase the availability and consumption of alcohol. For example, the increasing market share of major corporate groups in liquor retailing appears to have extended opening hours, increased accessibility and buying power and lowered prices.
- In practice implementation of some policies has also not had regard to the medical harm concerns. For example, the removal of discriminatory licensing regimes has been achieved by the granting of additional licences to new applicants rather than allowing the redistribution of existing licences to new entrants.
- Moreover, as might be expected of new entrants, the new licence holders are likely to be more cost efficient than many of the pre-existing licensees. This is most evident in the case of the major corporate chains which have superior scale, buying power and advertising power than 'traditional' single outlet businesses.

15. The need for this review arises therefore from the differing perspectives of public health policy and competition policy on the regulation of alcohol and the need for guidance, particularly at a state government level, on a practical resolution of those differences.

Structure of report

16. Section B provides a brief overview of the substantial body of Australian and international evidence on the public health and economic characteristics of alcohol consumption and harms.

Section C provides a review of the evidence on regulatory and other interventions applied to manage alcohol consumption and mitigate associated harms.

Section D identifies the objectives and principles for regulation of alcohol.

B. Public health and economic characteristics of alcohol consumption and harm

Introduction

17. The terms of reference request advice specifically on the nature of harm arising from alcohol consumption and how this is affected by the key regulatory interventions.

18. Alcohol has a long history of use as a social lubricant, conferring social benefits and, when consumed regularly in moderation, some health benefits. Above these levels of regular drinking, the health and social impacts are very well researched and documented and are unequivocally detrimental.

19. In comparison with tobacco and the illicit drugs, *the distinguishing feature of alcohol is that there are threshold levels of consumption below which harms are avoided* (and in fact which probably confer positive health benefits). This feature confounds individual and public perceptions of the relationship between alcohol availability, consumption and harm. Importantly, it also complicates the development of appropriate public policy and regulation via the design and implementation of regulation to reduce the harms.

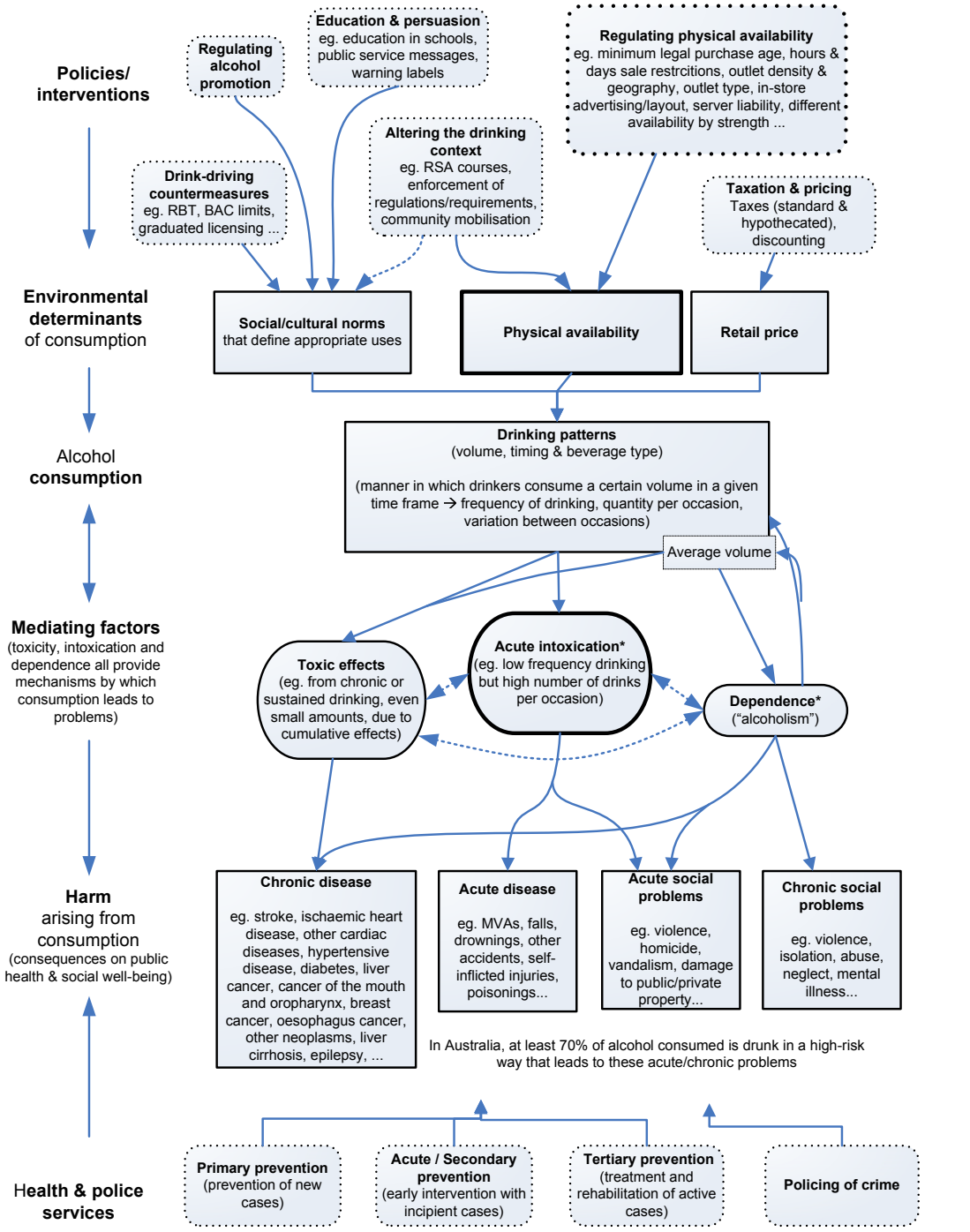
20. The relationships between alcohol consumption, harm, policies and related services are numerous. In reviewing the nature of these harms it is useful to consider:

    - **patterns of use and risk** (volume, timing and speed of consumption, and beverage type); in particular what is termed the 'prevention paradox' and its resolution (refer paragraph 25);
    - evidence on the range and magnitude of the **health and social impacts**;
    - the **economic/social costs** of alcohol use and abuse; and
    - the economic characteristics and implications of the large negative 'externalities' associated with alcohol in comparison to other commodities.

21. The relationships between alcohol consumption, alcohol-related harm, policies and related services are multiple and difficult to summarise concisely. Nonetheless, we seek to show these relationships diagrammatically in Figure 1.

    The key message is that alcohol consumption leads to harm via three well-researched and understood mediating factors – *toxicity*, *intoxication* and *dependency* – and some, but not all, of these are determined by *drinking patterns,* i.e. level and behavioural patterns (Babor, Caetano et al. 2003). Consequently, regulatory interventions that modify drinking patterns are able to decrease alcohol-related harm. These multiple relationships are explored below and in subsequent chapters.

Figure 1 – Relationship between alcohol consumption, harm, policies and related services



Acronyms
RSA – Responsible Serving of Alcohol
MVAs – Motor Vehicle Accidents
RBT – Random Breath Testing
BAC – Blood Alcohol Concentration

* **Definitions**
Alcohol dependence syndrome – Term used in psychiatric classifications to identify the co-occurrence of at least 3 of 6 drinking-related behaviours associated with dependence to alcohol.
Alcohol intoxication – A more or less short-term state of functional impairment in psychological and psychomotor performance induced by the presence of alcohol in the body.

Source: MJA analysis
(diagram adapted from Babor, Caetano et al. 2002, p.20).

Patterns of use and risk

22. Features of the recent Australian experience with alcohol include:

- the slight increase in per capita alcohol consumption[3] in Australia overall after 1995 following declines from peak consumption in 1981. Consumption is still above that recorded in the 1960s (see Panel A in Figure 8 at page 32). However, there has been a shift in the demographics of drinkers with a marked increase in consumption among young people (refer paragraph 27);
- a dramatic change in the composition of Australian consumption since the 1960s. Both spirit consumption, in terms of alcohol consumed per capita, and wine consumption, in terms of litres consumed, have increased significantly since the 1960s; the latter more than doubling. In contrast, the volume of beer consumed per capita is slightly lower than in the 1960s. However, the volume of alcohol in beer consumed has declined significantly with the substantial inroads made by light beer. (Commodity Board for the Distilled Spirits Industry 2001) – as quoted by the Australian Institute of Criminology[4]. The ageing population phenomenon is relevant when considering these per capita statistics as per capita consumption generally declines steadily from its peak in the early 1920s (Wodak 2005).

23. The pattern of consumption (including, but not limited to volume) is the best indicator of risky use and a predictor of potential harm. Evidence outlined below suggests that risky behaviours have worsened, with binge drinking and other risky consumption behaviour increased.

24. A popular and comfortable belief is that the problems of alcohol consumption are largely due to alcoholism (i.e., dependence) or other heavy drinking and are therefore not relevant to the bulk of the population, except when they become unwittingly involved. This belief suggests that regulatory interventions to reduce the social costs of alcohol need only target a relatively small number of high risk groups of heavy drinkers and alcoholics.

A less comfortable, but more authoritative finding is that:

> *Legal drugs generate the great bulk of health economic and social drug problems in contemporary Australia. The bulk of the problems are found within mainstream society…*
>
> (Commonwealth of Australia 2004, p.239)

[3] per capita consumption: "The average amount of pure alcohol (usually estimated in litres) consumed during a given time period (e.g. one year), calculated by dividing the total amount of pure alcohol consumed during that time by the total number of people in the population, including children and abstainers." Doherty, S. and A. Roche (2003). Alcohol and Licensed Premises: Best Practice in Policing - A Monograph for Police and Policy Makers, Funded by the National Drug Law Enforcement Research Fund, an initiative of the National Drug Strategy.

[4] http://www.aic.gov.au/research/drugs/stats/consumption/alcohol.html

Rather than all drinking problems being related to alcoholism, recent studies show

> *…a universe of drinking problems that lie outside the bounds of alcoholism."*
>
> (Babor, Caetano et al. 2003, p.21)

> *… most alcohol-related problems are attributable to the relatively substantial portion of the population that drinks to intoxication at least occasionally.*
>
> (Babor, Caetano et al. 2003, p.23)

> *… recent evidence strongly suggests that milder degrees of habit or dependence are widely distributed in the population and are associated with increased experience of problems.*
>
> (Babor, Caetano et al. 2003, p.26)

Moreover, research shows that acute intoxication (i.e. 'getting drunk', as opposed to chronic dependence) causes the majority of harm. For example,

> *Two-thirds of person years of life lost through risky alcohol use are due, at least in part, to the short-term or acute effects of alcohol intoxication.*
>
> (Commonwealth of Australia 2004, p. 242)

25. The need to address the drinking behaviours exhibited by the majority (whose average intake is low-risk) has been identified by researchers and governments. The review monograph published for Australia's Ministerial Council on Drug Strategy makes note of the 'prevention paradox':

> *… there is strong epidemiological evidence that the majority of occasions of acute alcohol-related harm affect the majority of drinkers, whose average intake can be described as low-risk.*
>
> (Commonwealth of Australia 2004, p.188)

The same monograph further notes:

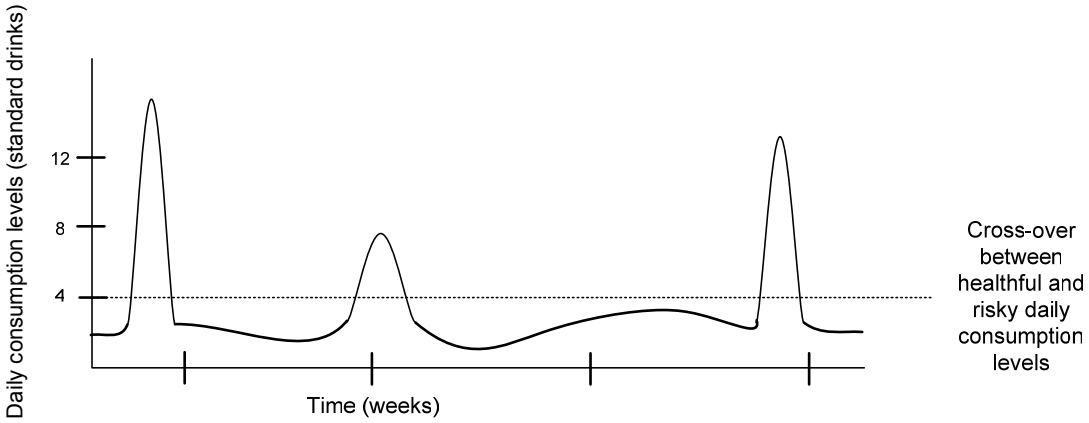
- *a common pattern of occasional sessions of heavy alcohol intake occurs among people whose average daily consumption is low-risk;*
- *a significant proportion of alcohol intake in Australia involves drinking at risky or high-risk levels for acute harm − estimated to be 51% of alcohol consumed by the Australian population aged 15 and over; and*
- *when risky patterns of alcohol consumption for acute and/or chronic harm from drinking are combined, this comprises as much as 67% of total alcohol consumption.*

> *In each case, the above estimates are from the 1998 NDSHS, which underestimates actual consumption by over 50%.*
>
> (Commonwealth of Australia 2004, p.188)

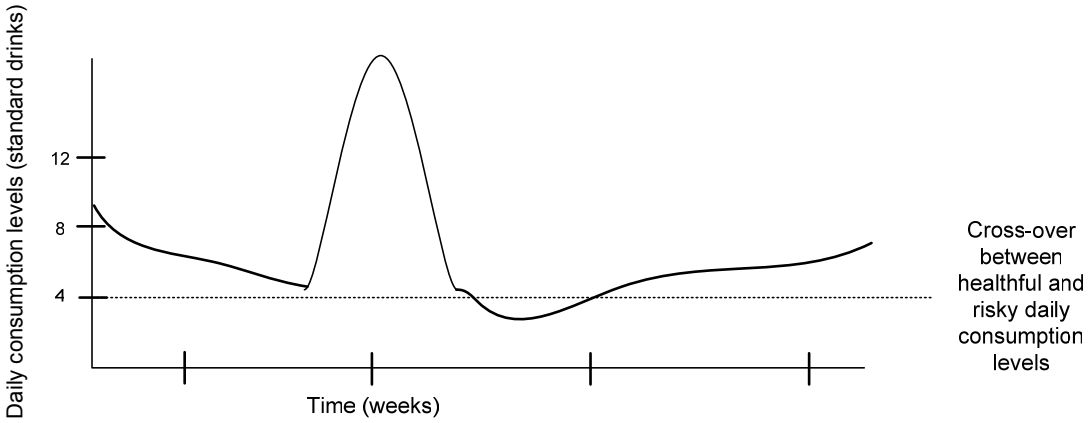
26. It is useful to depict different types of 'risky' drinking behaviour diagrammatically. Figure 2 illustrates two commonly seen patterns.

Figure 2 – Examples of 'stereotypical' drinking patterns, illustrating two distinct types of risky drinking behaviour

1. A drinker with regular daily low levels of healthful consumption, and irregular 'binges' producing short-term intoxication, at high risk of acute health/social harm.



2. A less common (but stereotypical) drinker with alcohol dependency (i.e. 'alcoholism') with regular daily levels of consumption exceeding risky levels, at high risk of chronic (long-term) health/social problems.



Source: MJA analysis

Youth consumption

27. Alcohol consumption by young people in Australia is high and has increased significantly through the 1990s. The research on this is relatively strong:

> *Trend data from the NSSDS, between 1983 and 1996, show significant increases in alcohol use including frequency and quantity consumed by the Australian youth population through the 1990s, after a small decline in the late 1980s. This trend continued between 1996 and 1999 with an increase in the proportion of students reporting drinking alcohol in the week before the survey.*
>
> *Inspection of trends demonstrated that the prevalence of students drinking in the previous week at ages 12 to 15 tended to increase through the 1990s, while both this indicator and drinking large (potentially harmful) amounts of alcohol also increased for students aged 16 to 17 years. The Australian trend of increasing youth alcohol use through the late 1990s has also been reported in Canada and the United States.* (Commonwealth of Australia 2004, p. 25)

28. The prevalence of drinking increases with age for underage drinkers. The same survey found also that almost one-third of 12 and 13 year olds had consumed alcohol in the previous month compared with over two-thirds of 16 and 17 year olds.

Table 1 – Prevalence of alcohol use in last month for young Australians

	% used last month
Age 12/13	31
Age 16/17	70

Source: (Commonwealth of Australia 2004), adapted from Table 3.3, based on National Secondary School Drug Survey, 2001.

The Australian experience is repeated elsewhere:

> *Of particular concern in many countries is hazardous drinking among youth. In most of the countries where alcohol consumption is widespread (e.g., most European and American countries, New Zealand and Australia), a large proportion of adolescents drink alcohol, at least from time to time.*
>
> (Babor, Caetano et al. 2003, p.50)

29. This trend to greater consumption has been associated with greater harms:

> *While many young adults drink at low risk levels, statistically this is the group that is most likely to be harmed by alcohol. Young adults have the highest alcohol consumption in Australia and are the group at highest risk in relation to alcohol-related injury, including road trauma, violence, sexual coercion, falls, accidental death (including drowning), and suicide. Younger, less experienced drinkers are at even higher risk due to their lower alcohol tolerance.*
>
> (National Health and Medical Research Council 2001, p. 14)

30. For 14 to 19 year olds, around one-third of both males and females have drinking patterns that are likely to cause harm in the short term, while a further 10-15 per cent may be incurring long-term harm. This implies that of those youths drinking, over half of males (38% of 73%) and almost two-thirds (48% of 75%) of females had high risk drinking patterns (Table 2).

Table 2 – Prevalence of alcohol use in young Australians aged 14 to 19 years

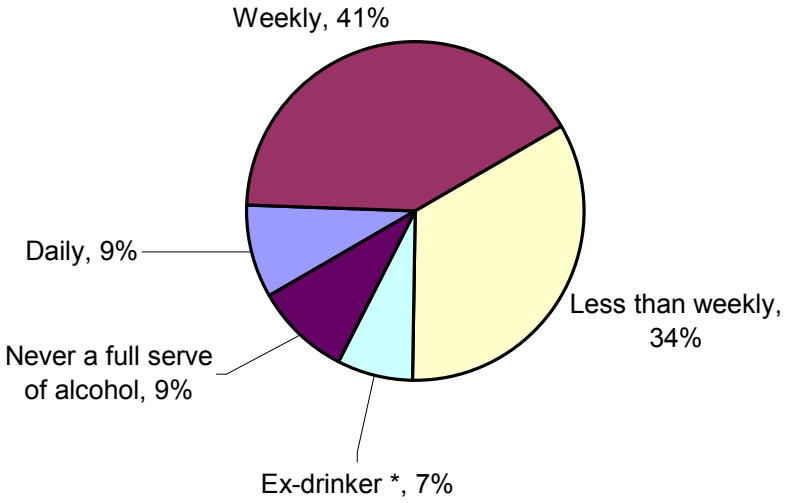
	Males (%)	Females (%)
Current drinker	73	75
Risky/high-risk drinker for:		
▪ Long-term harm	9	15
▪ Short-term harm at least monthly	29	33

Source: (Commonwealth of Australia 2004), adapted from Table 3.1, based on National Secondary School Drug Survey, 2001.

Australian alcohol guidelines and current alcohol consumption patterns

31. Alcohol consumption is common in Australia – half the population aged 14 years and over reports drinking at least weekly:

Figure 3 – Alcohol drinking status: proportion of the population aged 14 years and over (Australia, 2004)



(Australian Institute of Health and Welfare 2005)

32. Australia's National Health and Medical Research Council has put considerable effort into developing the *Australian Alcohol Guidelines* to minimise risks associated with alcohol consumption (National Health and Medical Research Council 2001).

> *Australia's new National Alcohol Guidelines now define risky and high-risk drinking both in terms of average daily consumption (for harms caused by long-term heavy drinking) and also amount consumed on any one day (for harms caused by the acute effects of alcohol intoxication). As such, the 'prevention paradox' effectively disappears, at least for acute alcohol-related problems since these are almost entirely caused by risky or high-risk sessional drinking.*
>
> (Commonwealth of Australia 2004, p.188)

33. The following distinction is made between *harmful* and *hazardous* drinking:

- Harmful drinking: A drinking pattern that results in medical or psychological problems.
- Hazardous drinking: A pattern or amount of alcohol consumption that poses risks to the drinker or others.

(Doherty and Roche 2003)

34. As an example, for low risk of harm in the short-term, the guidelines suggest that males may consume up to six standard drinks on any one day and no more than three days per week. For low risk of harm in the long-term, this drops to up to four standard drinks on an average day. These levels are only recommended for those who do not have a condition made worse by drinking, are not on medication, are over 18 years of age, are not engaging in activities involving risk or a degree of skill, etc. In addition, it is assumed that the drinks are consumed at a moderate rate to minimise intoxication (eg for men no more than 2 drinks in the first hour and 1 per hour thereafter) and they only apply to persons of average or larger size (above about 60 kg for men).

(National Health and Medical Research Council 2001)

Figure 4 – Australian Standard Drinks Guide – 'Bottleshop poster'
(National Health and Medical Research Council)

35. The Australian drinking guidelines (refer summary in Figure 4) provide a useful benchmark to assess current drinking levels, which indicates the majority of alcohol is consumed in a risky manner:

> *A very conservative estimate ... is that 67% of all alcohol consumed in Australia is done so in a manner inconsistent with the latest NHMRC National Alcohol Guidelines. For young adults that figure is 90%.*
>
> (Commonwealth of Australia 2004, p.242)

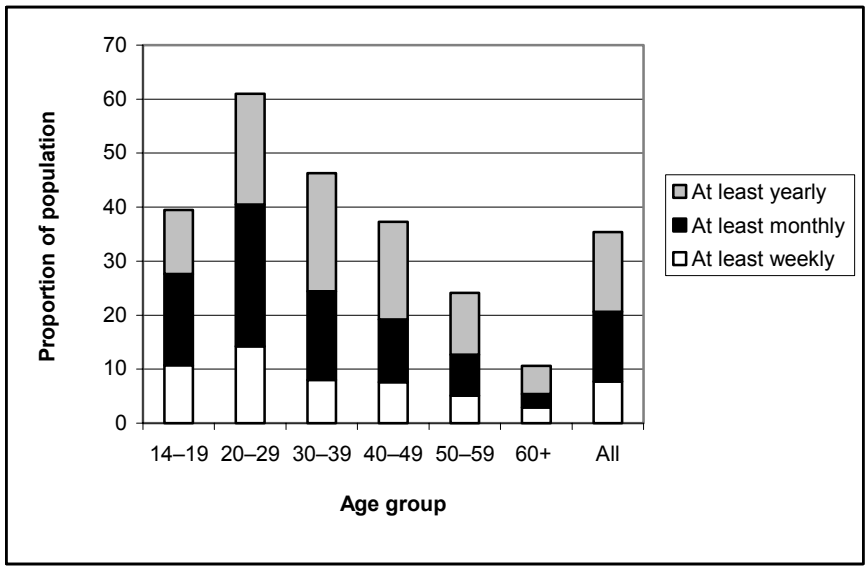
In other words, less than one-third of Australian alcohol consumption (by volume) can be defined as '*in moderation*' or '*good*' for consumer health.

36. The results of the 2004 National Drug Strategy Household Survey undertaken for the Department of Health and Ageing.(Australian Institute of Health and Welfare 2005) lists Australians' self-reported drinking levels. It is emphasised that these self-reported estimates are very conservative, since the alcohol consumption reported accounts for less than half the alcohol sold in Australia.

The figures show that over one-third of Australians report putting themselves at risk of alcohol-related harm in the *short term* on at least one occasion in the last year (refer Figure 5).

Individuals aged 20-29 years are the most likely to drink at risky levels (over 60%). About 41% of those aged 20-29 and about 28% of those aged 14-19 drink at least monthly to levels which put them at risk of alcohol-related harm in the shot term.

Figure 5 – Proportion of Australians drinking at levels of medium and high risk for related harm in the short term (Australia 2004)

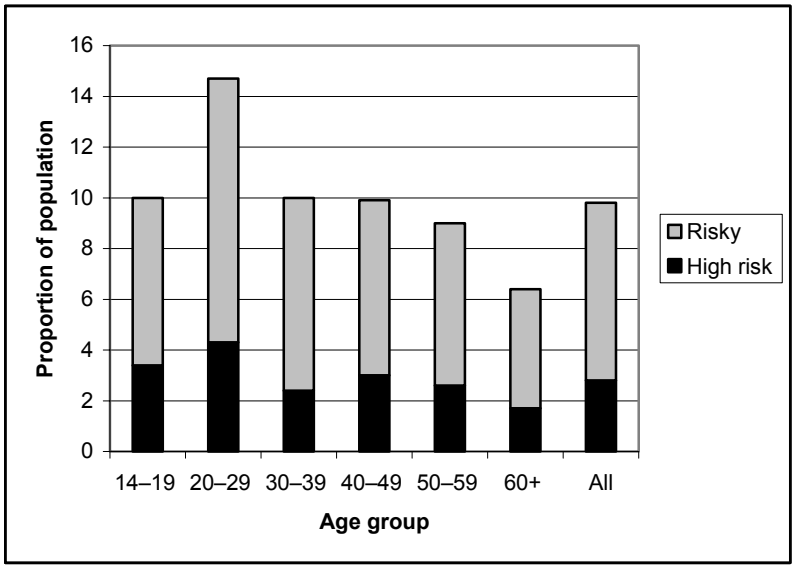


(Australian Institute of Health and Welfare 2005)

The survey further shows that nearly 1 in 10 Australians report putting themselves at risk of alcohol-related harm in the *long term* on at least one occasion in the last year (refer Figure 6).

About 15% of those aged 20-29 years consume alcohol in a way that puts them at risk for long-term (chronic) alcohol-related harm. This age group is also the least likely to abstain from consuming alcohol (not shown in figure). About 4% of those aged 14-29 consume alcohol in a way that puts them at *high risk* for chronic harm

Figure 6 – Proportion of Australians at medium and high risk of alcohol related harm in the long term (Australia 2004)



(Australian Institute of Health and Welfare 2005)

Note: Data for low-risk drinkers and abstainers was also reported, but is not included in this figure.

Implications

37. Because a significant element of harm is occasioned from the short-term effects of intoxication, it follows that policy measures aimed to reduce harm should focus on addressing intoxication.

> *The large contribution of risky and high-risk drinking to total per capita consumption helps explain the close association sometimes found between per capita alcohol consumption and rates both of acute and chronic alcohol-related harm. These associations have also been evident in the National Alcohol Indicator reports on patterns of alcohol-related harm and per capita consumption in Australia, across both time and jurisdiction.*
>
> *It follows that measures which reduce the overall consumption of the entire population are likely to have a positive impact on risky and high-risk drinking and hence, on the amount of alcohol-related harm in the community. It also follows that measures that reduce the amount and frequency of risky sessional drinking will impact on total population consumption. This 'whole of population' approach is a substantial underpinning of supply reduction policies in regard to alcohol.*
>
> *For policy application, it has been pointed out that justifying supply reduction policies on the basis of reducing per capita consumption of alcohol alone invites scepticism from those unfamiliar with the epidemiology of alcohol-related harm. A firmer foundation is to seek to reduce risk and high-risk drinking, whilst noting that such drinking patterns comprise the great majority of alcohol consumption in contemporary Australia.*
>
> (Commonwealth of Australia 2004, p.188)

38. This evidence is broader than alcohol policy and was applicable also to tobacco:

> *The ... evidence suggests that whole of population, or universal strategies, are of particular importance in relation to the more prevalent harms associated with tobacco and alcohol use.*
>
> (Commonwealth of Australia 2004, p.244)

This is not to downplay the importance of targeted policies, but highlights the significant broad benefits that can be achieved from universal strategies.

The nature of harms arising from alcohol consumption

39. Alcohol is classified as a drug due to its substantial physiological and psychological effects. It has a long history of use and abuse in human societies. 'Alcohol-related problems' have been defined as:

> *Any of the range of adverse accompaniments of drinking alcohol, including medical, social and psychological consequences.*
>
> (Doherty and Roche 2003)

40. Alcohol consumption has a wide range of health and social impacts, both acute and chronic (Table 3).

Table 3 – Harms attributable to alcohol misuse

100% attributable to alcohol use	Partly attributable to alcohol use	
Alcoholic psychosis	Lip cancer	Gastro-oesophageal haemorrhage
Alcohol dependence	Oral cancer	
Alcohol abuse	Pharyngeal cancer	Cholelithiasis
Alcoholic polyneuropathy	Oesophageal cancer	Acute pancreatitis
Alcoholic cardiomyopathy	Colon cancer	Low birth weight
Alcoholic gastritis	Rectal cancer	Road injuries
Alcoholic liver cirrhosis	Hepatic cancer	Fall injuries
Ethanol toxicity	Pancreatic cancer	Fire injuries
Other alcoholic poisonings	Laryngeal cancer	Drowning
	Breast cancer	Aspiration
	Pellagra	Machine injuries
	Hypertension	Suicide
	Ischaemic heart disease	Assault
	Cardiac dysrhythmias	Child abuse
	Heart failure	
	Stroke	
	Oesophageal varices	

(UK Cabinet Office Strategy Unit 2003), (Collins and Lapsley 2002) , (National Expert Advisory Committee on Alcohol 2001)

41. Toxicity, intoxication and dependence are the three key mediating mechanisms by which alcohol consumption may lead to associated harms (refer Figure 1).

- **Toxicity** has significant impacts on the health of consumers, particularly over a lifetime. An unfortunate effect of this long 'gestation' is that harm associated with alcohol may be attributed to the effects of ageing. Such 'hidden' and (temporally) remote costs reduce the perception of alcohol as causing harm on the consumer.
- The impacts of **intoxication** are usually felt in the short term. Behaviours affected by alcohol consumption can impose costs which while small relative to the overall society, can be highly significant and in some cases catastrophic for smaller communities and individuals.

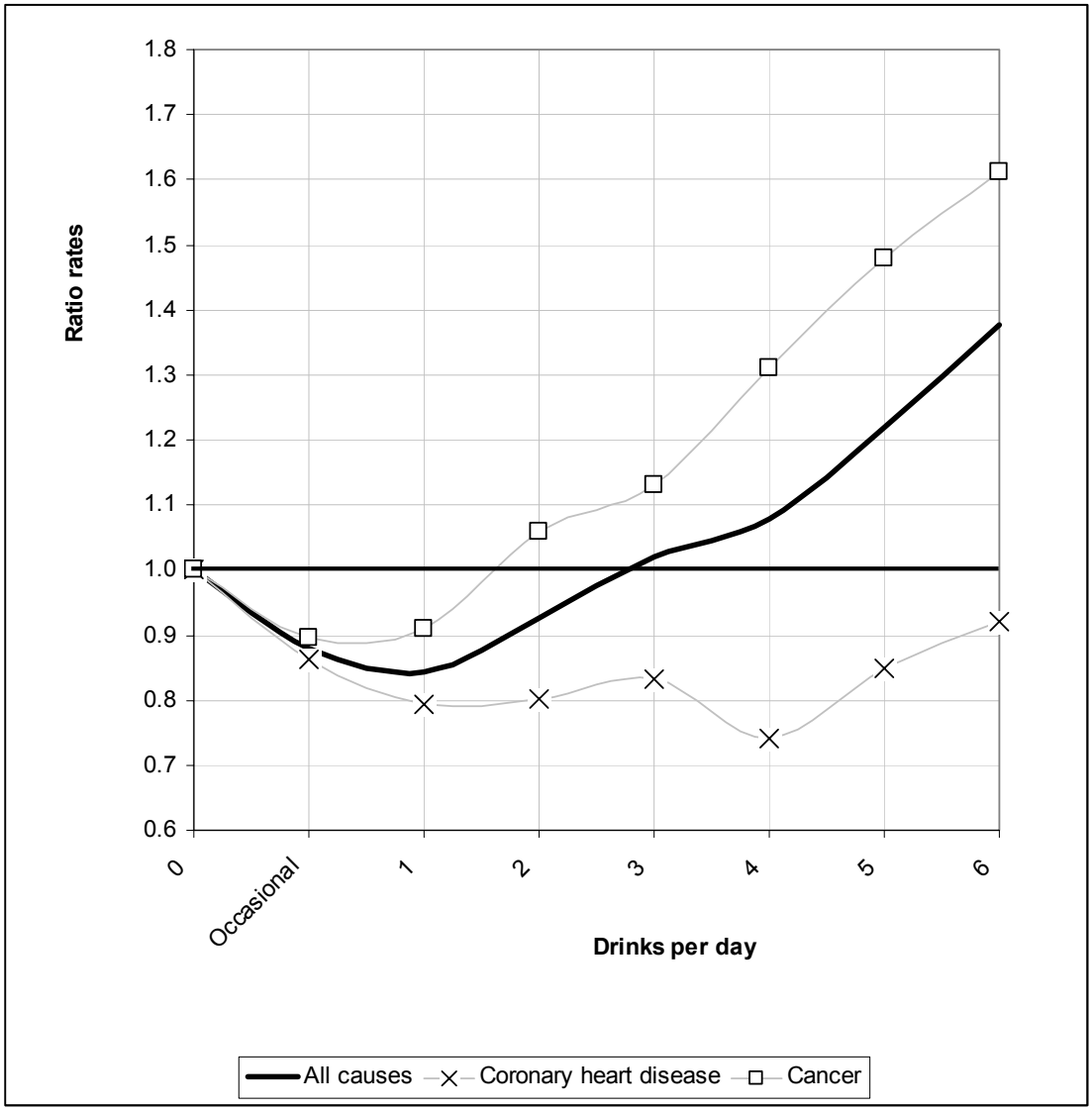
- Finally, the effects of **dependency** are likely to impose costs on society and the individual, particularly in the long run. However, unlike the hidden costs potentially attributed to ageing, harms associated with dependency are often blamed to the individual, reflecting the mantra of self-choice/self-imposed harm.

Acute harms from alcohol mainly affect young people, are generally very obvious, and often include some behavioural problems, e.g. domestic or other forms of violence, soccer hooliganism, vandalism of public property, arson. Chronic harms often occur without any suggestion of behavioural problems in individuals who are regarded as pillars of the community, but are diagnosed for the first time in their fifties with, say, cirrhosis. The onset is often insidious. Many patients presenting for the first time with alcoholic cirrhosis are surprised to learn that they have an alcohol related problem because they have functioned so well for so long. (Wodak, 2005)

42. In terms of risk from all causes of mortality, there exists an optimal level of daily alcohol consumption for any individual (approximately 10-20g ethanol, refer Figure 7). This low level of consumption offers lower health risk than for abstainers and ex-drinkers (for various reasons beyond the scope of this paper, including due to healthful effects of low doses of alcohol on the cardiovascular system).

(The statistics shown in Figure 7 are useful to highlight global levels of mortality risk to an 'average' individual in a population, however an important limitation of this chart must be noted. i.e The bulk of harm arising from alcohol misuse is not included as it does not relate to *mortality*. For example, the chart excludes all risks of morbidity due to consumption and all externalities.)

Figure 7 – Mortality rate ratios by level of alcohol consumption, adjusted for age and smoking habits, for the four most common causes of death from all causes



(Boffeta and Garfinkel 1990)

43. The significant harmful effects (and the beneficial effects) of alcohol consumption are not evenly spread across the community:

> *Alcohol causes the deaths and hospitalisation of slightly more children and young people than do all the illicit drugs combined ... These deaths are almost all caused by either intentional or unintentional injuries.*
>
> *While alcohol is also responsible for the deaths of many more adults and elderly people than are the illicit drugs, there are a much larger number of deaths believed to be saved among older people as a result of, mainly, low risk alcohol consumption, principally among women.* (Commonwealth of Australia 2004, p.24)

44. Alcohol use is also directly linked with crime and harms. Predominantly, this crime is 'encouraged' through alcohol, vandalism, break-ins and other property crime and assaults, robbery and personal crimes:

> *Total alcohol sales volume was significantly and positively correlated with the rates of three crime types in NSW: malicious damage to property, assault and offensive behaviour.. ...* [and] *broadly ... any* [of beer, light beer, spirits and wine] *alcohol type being an equally good predictor of crime rates(Stevenson 1996,p. vii)* (Roche 1999, p.33)
>
> *If the 50 highest alcohol sales volume postcodes in NSW had their sales reduced to the Statewide mean, this would result in a 22 per cent reduction in offensive behaviour, a nine per cent reduction in malicious damage to property and a six per cent reduction in assault in these postcodes..(Stevenson 1996.p. 31)* (Roche 1999, p.33)

In addition, it is important to note that crime is also associated with regulation. E.g. Prohibition defining alcohol consumption as a crime promotes more insidious relations between alcohol supply and organised crime. Also, tougher licensing, operating hour and excise regimes increase the potential benefit from avoiding the regimes and engaging in illegal supply. For example, high levels of excise on tobacco in some states promoted illegal transfers of cigarettes across state borders in the 1980s and sometimes violent responses from incumbents.

45. In summary, whilst low levels of use may confer some benefits, alcohol is associated with a wide variety of negative impacts ranging from acute to chronic, physiological to psychological, and social to criminal. Needless-to-say, the economic impact of these impacts is significant.

Economic impacts of alcohol consumption

46. The costs of alcohol consumption to the economy and community have been systematically appraised in Australia and other OECD economies over the past two decades. Tangible costs fall into five broad categories:

a) labour and productivity;

b) health care costs;

c) accidents and fires;

d) crime; and

e) resources used in abusive consumption.

47. For Australia, the tangible costs of alcohol were estimated to exceed $5.5 billion in 1998-99. The reduction in the workforce, road accidents and crime comprise the three largest single elements of cost (Table 4). When estimated on the same basis as GDP, these costs were $5.8 billion in 1998-9, or almost 2% of GDP (measured at factor cost).

Table 4 – Tangible social costs of alcohol: Australia (1998-99)

	$m
Labour in the workforce	
Reduction in workforce	1,914.8
Absenteeism	35.2
Total	1,949.9
Labour in the household	
Premature death	372.9
Sickness	29.7
Total	402.6
Total paid and unpaid labour costs	2,352.5
Less consumption resources saved	579.3
Total net labour costs	1,773.2
Health care (net)	
Medical	110.3
Hospital	88.3
Nursing homes	-49.6*
Pharmaceuticals	76.0
Ambulances	-
Total health care	225.0
Road accidents n.e.i.	1,274.4
Fires n.e.i.	-
Crime n.e.i.	
Police	648.2
Criminal courts	112.5
Prisons	96.9
Property	n.a.
Productivity of prisoners	247.0
Total crime	1,104.6
Resources used in abusive consumption	1,164.2
Total	5,541.3

(Collins and Lapsley 2002, Table 25)

(n.e.i. – not elsewhere included)

* Negative nursing home figure reflects transfers to more intensive medical care.

In addition, there are "intangible" costs − primarily the economic cost from loss of life. In total, these tangible plus intangible costs in 1998-99 were estimated at $7.6 billion (Table 5).

Table 5 – Public costs of alcohol (1998-99)

	$ Billion	% Potentially avoidable
Tangible	5.541	48
Loss of life and other	2.019	63
Total	7.56	**52**

(Collins and Lapsley 2002, Tables 27 & 29)

In terms of incidence, over 75% of estimated tangible costs of alcohol in Australia fall on business and individuals (Table 6). Costs to individuals and business totalled almost $5 billion. For the Commonwealth and state governments in aggregate, the net revenue from alcohol in 1998-1999 totalled $1.8 billion. The budgetary costs for the Commonwealth Government are more than offset by the extent of benefits at least in the first round due to the collection of excise taxes. However, the budgetary cost of alcohol-related harms to state governments (police, prisons, hospitals etc.) is effectively matched by tax revenue, received primarily from licensing. To the extent that Commonwealth and state net benefits are mismatched, there appears to be a vertical fiscal imbalance.

Table 6 – Incidence of the tangible costs of alcohol misuse (1998-99)

	Individuals $m	Business $m	Government $m	Total $m
Workforce labour	0.0	1,597.0	352.9	1,949.9
Household labour	402.6	0.0	0.0	402.6
Hospital	3.3	16.1	68.9	88.3
Medical	11.8	6.0	92.5	110.3
Nursing homes	-9.6	-0.3	-39.7	-49.6
Pharmaceuticals	6.0	0.0	70.1	76.0
Road accidents n.e.i.	682.7	498.2	93.4	1,274.4
Crime n.e.i.	0.0	247.0	857.6	1,104.6
Resources used in abusive consumption	1,164.2	0.0	0.0	1,164.2
Total quantified tangible costs	**2,260.8**	**2,364.1**	**1,495.7**	**6,120.6**
Percentage of total quantified costs	**36.9%**	**38.6%**	**24.4%**	**100.0%**

(Collins and Lapsley 2002, Table 31)
(n.e.i. – not elsewhere included)

48. Over 50% of the total costs of alcohol are estimated to be potentially 'avoidable' (Table 5). In this instance, 'avoidable costs' as defined by Collins and Lapsley (2002) "represent the components of overall social costs which, according to our estimates, potentially could be eliminated if effective anti-drug policies and programs were introduced." It is not clear what these policies and programs are specifically.

49. These significant costs are by no means unique to Australia. Evidence from the US similarly indicates significant costs associated with related health and social problems, for example:

> *... in California, the resources devoted to dealing with alcohol-related social problems are at least as extensive as those devoted to alcohol-related health problems.*
>
> (Babor, Caetano et al. 2003, pp.83-84)

As noted in the recent comprehensive review of the costs of alcohol misuse by the UK Cabinet Office, "Alcohol misuse has been estimated to cost between 2% and 5% of a country's annual gross national product".

Economic characteristics of alcohol

50. A review of the evidence on the costs and harms of alcohol consumption confirms the proposition that alcohol is "*no ordinary commodity*". In economic terms, alcohol consumption combines the benefits of widespread short-term enjoyment of a social lubricant with multiple, complex and, on balance, negative externalities and other adverse characteristics. These include:

- multiple and complex **externalities** ranging from medical to social, which cause the public benefits and costs of alcohol consumption to diverge from the private benefits and costs;
- **public good characteristics**.[5] Alcohol induced violence, vandalism, noise and nuisance is difficult to avoid in a local area. For example, "*One drunk can wake the street*!" This meets the definition of a public good (bad) as each individual's 'consumption' is non-excludable – the nuisance cannot be avoided and non-rivalrous – my hearing the drunken disturbance does not stop someone else also hearing it; and
- **imperfect information.** The health costs of alcohol consumption are not immediate but tend to occur in later life and are often viewed as "*just part of aging*". The issue of threshold levels is not commonly understood and there is a tendency to focus on the positives, eg., "*the benefits of drinking red wine*". Moreover, alcohol induced health problems and death tend to be under-reported in "*respect of family sensitivities*". The bulk of the population abstains or drinks moderately − most of the time − which allows the incorrect view that alcohol harm occurs amongst extreme drinkers only.

51. The review demonstrates that, in economic terms, the alcohol market displays three particular characteristics: multiple negative externalities, public good characteristics and information failure[6]. Both individually and collectively, these characteristics mean that individuals and their governments may make socially non-optimal decisions regarding alcohol. These characteristics are widely acknowledged as reasons for market failure and, therefore, reasons for considering government intervention. Alternatively expressed, three of the five sources of market failure noted by CoAG in *Principles and Guidelines for National Standard Setting and Regulatory Action* (Council of Australian Governments 2004) can be observed with alcohol.

---

5 A pure public good is characterised by non-rivalry of consumption and non-excludability of benefits. See for example, Cornes, Richard and Todd Sandlet (1996) *The Theory of Externalities, Public Goods and Club Goods*, 2nd edition, Cambridge University Press, p.8. In the case of a public "bad", consumption is still non-rivalrous (and the costs, non-divisible) and the costs are not excludable.

6 There are also **merit goods issues**. First, alcohol intoxication leads to impaired judgements and decision making at any age, however the decisions on alcohol consumption differ markedly and progressively as a person ages. Second, the evidence indicates that the older and more mature a person when they first experience alcohol, the less they consume over their life. Thus, people who begin drinking later are likely to form views on the appropriate consumption by younger drinkers Further, non-drinkers are likely to also form views on appropriate consumption by all drinkers. Differing individual experiences and concern over alcohol consumption induces strong paternalism and strong propositions about what is good for others, in particular young people. Note that a merit good includes not only those goods for which consumption can be shown to entail positive or negative externalities, but more generally applies to goods that are considered desirable or non-desirable for people to consume. As such, merit good arguments tend to refute the notion of consumer sovereignty. Implicitly at least, those who make such arguments are claiming that individuals frequently do not know what is in their own best interest.

52. The externalities, information failure and public goods characteristics also cause multiple problems for public policy and regulatory response and go some way to answering the questions posed by the medical and public health reviews.

> *An unanswered question, beyond the scope of this monograph, is why significant resources continue to be devoted to initiatives with limited potential for reducing or preventing alcohol-related problems.*
>
> (Babor, Caetano et al. 2003, p.200)

It is useful to set out the problems posed for policy and regulatory response.

53. First, the fact that profits from alcohol sales are strongly focussed in a few private corporations, but the costs and harms are spread diffusely across the community, businesses and governments, means that the beneficiaries and supporters of increased liberalisation are more concentrated, better funded, more vocal and effective than the more numerous and diffuse entities and individuals who bear the costs.

> *As 70% of the alcohol consumed is drunk at high risk, the alcohol beverage industry is not keen on anything that reduces irresponsible drinking.*
>
> (Wodak 2005)

Moreover:

> *... democracy is not cheap. ... everybody's involved with assisting political parties ... we need to keep these people in place to have the democracy we have today.... Yes, it costs money.*
>
> (John Thorpe - Australian Hotels Association)

54. Second, the comfortable (but incorrect) view that the problems of alcohol are mainly due to a few problem drinkers, tends to weaken support for broader effective interventions.

> *Community support [also] varies inversely with the strength of evidence that interventions work. Communities don't support price increases (the most effective intervention) unless they are in the form of a hypothecated tax (which governments and officials hate). Communities and politicians love 'education', which is unfortunately next to useless.*
>
> (Wodak 2005)

55. Third, the negative externalities are magnified because those benefiting from alcohol production and sales tend to be nationally-based whereas many of the costs (such as motor vehicle accidents, violence and crime) are local. This poor alignment between those who receive the benefits and those who incur the costs impedes public policy responses to deal with the harms;

The fact that many of the problems occur locally and tend to be concentrated in some locations only, means that unless local communities and councils are well organised and represented, these costs and disadvantages will be understated to the general population and electorate. It also follows that the calculus of benefits and costs − and therefore decisions on public policy − tend to depend on the size of the decision making unit.

56. Fourth, at the local level, there is high awareness of costs since the acute impacts are locality specific. At the national level, commercial returns for alcohol consumption are readily apparent (as excise and tax revenues), but locally incurred costs tend to recede into the background (at state and local government level). The current friction in the interface between competition and alcohol policy is partly explained by differences in local and national perspectives. Moreover, this difference has also been noted between national and international perspectives and policy positions.

> *... the operating assumption in international agreements has often been to treat alcoholic beverages as an ordinary commodity. In a world of increasing trade globalization, this operating assumption has meant that national and local alcohol policies, predicated on the extraordinary nature of alcohol, have increasingly come under pressure at the international level.*
>
> *(Babor, Caetano et al. 2003, p.231)*

Not only have international trade agreements tended to reject the 'no ordinary commodity' perspective, but several of the regulatory tools known to be particularly effective in reducing alcohol consumption are themselves anathema to the principles and philosophy behind proposed international agreements[7]. Therefore there is a need to consider carefully how to resolve the conflict between international, national and local obligations.

57. Finally, the interaction of these several factors goes some way to explaining the observed paradoxical coincidence of increasing liberalisation of alcohol with the progressive accumulation of scientific and economic evidence on the costs and harms of alcohol consumption.

58. Of course regulation too is imperfect and regulatory failure may mean that well intentioned regulation fails to achieve its objectives or produces unacceptable side effects.

[7] International agencies have often encouraged dismantling or sale of government monopoly agencies as a condition of development grants, particularly in 'structural adjustment' programs for countries with financial difficulties. There has been no differentiation of alcoholic beverages from other commodities, with the result that many government ownership arrangements have been dismantled in recent years. Babor, T., R. Caetano, et al. (2003). Alcohol: No Ordinary Commodity - Research and Public Policy. New York, Oxford University Press.

The relationship between availability and consumption

59. Medical literature regarding the damage from alcohol consumption emphasises the positive correlation between volumes consumed (and the patterns of consumption) and the level of medical and social harm.

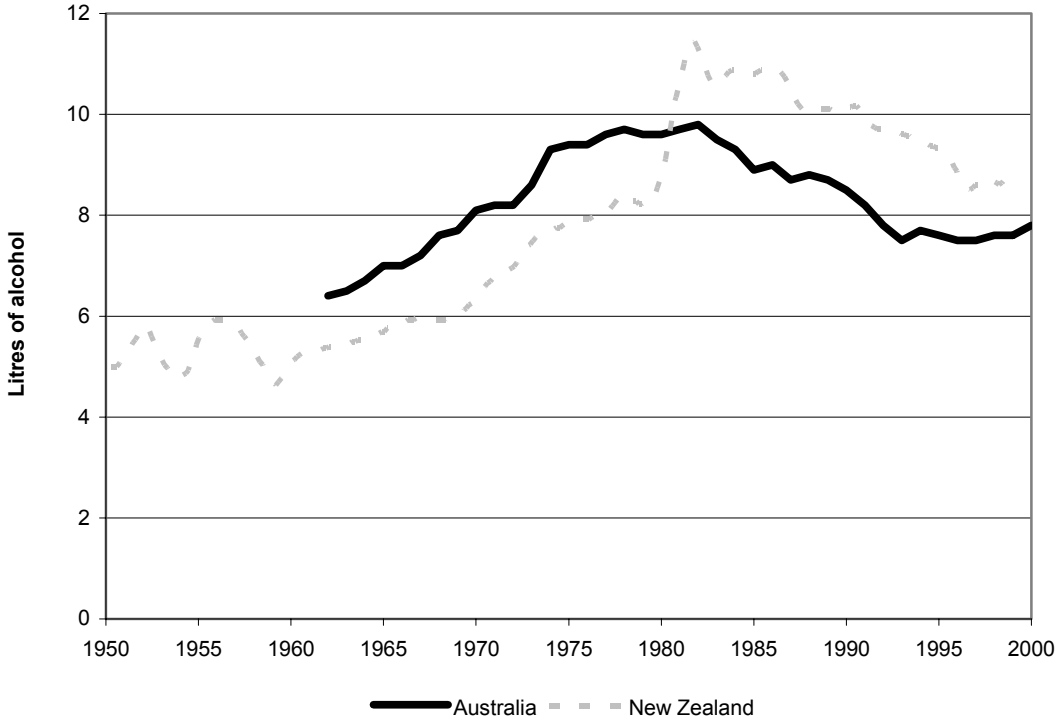
> *...main thesis: the higher the average amount of alcohol consumed in a society, the greater the incidence of problems experienced by that society. Consequently, one way to prevent alcohol problems is through policies directed at the reduction of average alcohol consumption, particularly those policies that limit the availability of alcohol.*
>
> (Babor, Caetano et al. 2003, p.5)

60. The reported evidence indicates that, other things equal, increased availability of alcohol increases consumption, including binge drinking, underage drinking and heavy drinking. As a result, other things being equal, acute and chronic medical and social harms increase.

61. This strong result is not always observed in each of every case and jurisdiction since others things are not held equal. For instance,

- the general population is aging and alcohol consumption declines with age;
- random breath testing has been progressively introduced and heightened with resulting success (particularly in some states);
- patterns of consumption have changed with a decline in beer and spirit consumption and a rise in wine consumption; or
- past liberalisations may have been sufficient to push past the threshold where the new easing of restrictions on availability has a material effect. Thus the observation, that the 1990s liberalisations of liquor availability in New Zealand and in Victoria did not result in an increase in average consumption of alcohol or an increase in drink driving, is correct. Changes in per capita consumption levels in Australia and New Zealand are shown in Figure 8. As indicated, the declines that have been observed have occurred after significant increases – in the 1970s in Australia and 1980s in New Zealand.

Figure 8 – *Per capita* consumption - Australia and New Zealand

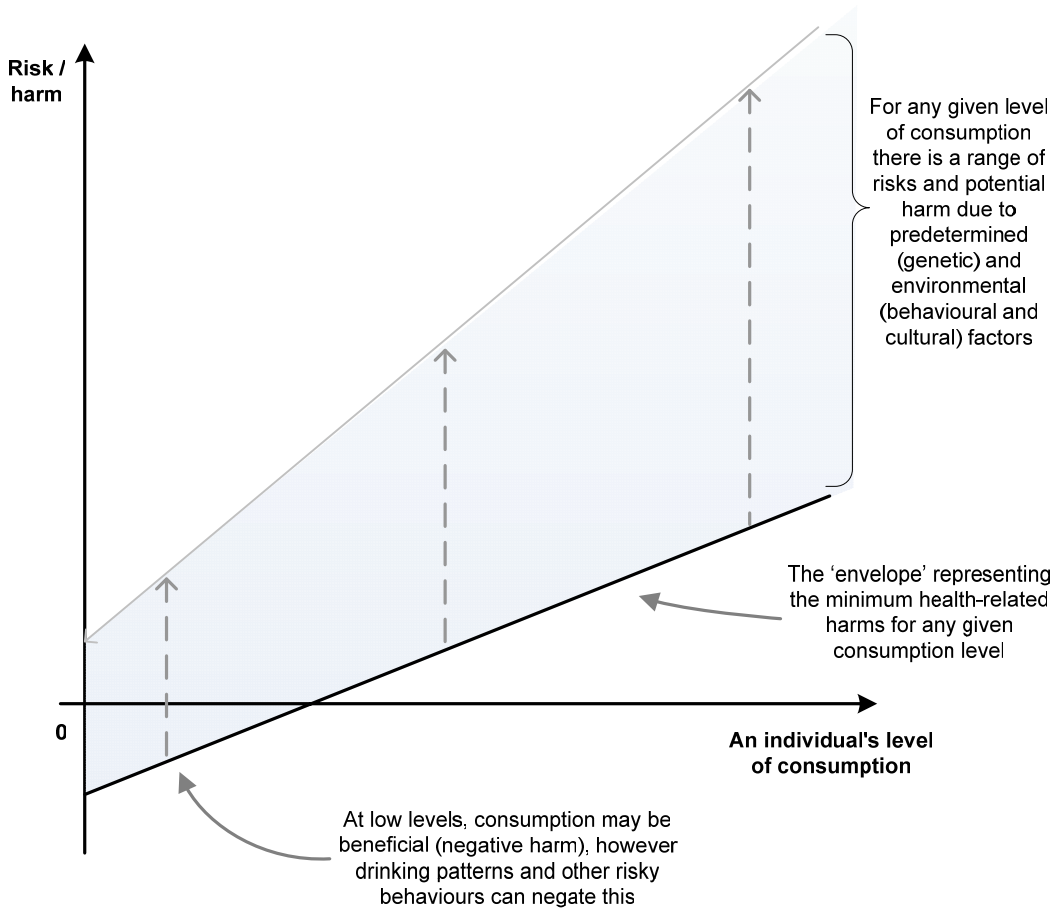


Sources: Australia – Australian Institute of Criminology "Consumption of alcohol, Australia" http://www.aic.gov.au/research/drugs/stats/consumption/alcohol.html
New Zealand – Ministry of Health (2001) National Alcohol Strategy, p. 5

62. In several OECD countries including Australia, falling alcohol consumption has occurred in parallel with this liberalisation (Roche 1999) – however, this correlation does not demonstrate causation. The statistics are confounded by an ageing population cohort and increasing problem with youth drinking. Falls in consumption may have been even steeper if liberalisation of outlet density and conditions had not also occurred.

63. Opponents of alcohol regulation emphasise the impact of other factors which result in different levels of social harm for the same level of total per capita consumption (Figure 9). It is evident that both are correct. However, mitigating factors do not detract from the basic message that volumes consumed and harm done are related.

Figure 9 – An individual's level of harm correlates strongly (but not perfectly) with alcohol consumption



64. In practice, both the total volume of alcohol consumed, predetermined factors and behavioural elements (including the pattern of consumption) determine the risk and harm that arises. Risk may be reduced by:

- decreasing consumption levels; or
- interventions to affect behavioural change, for example blood alcohol concentration (BAC) limits. For example, Randomised Breath Testing reduces the numbers of road traffic accidents, particularly at higher consumption levels (drinks per session). BAC limits primarily aim to change behaviour rather than consumption levels in total.

In terms of choosing a best practice set of regulatory interventions to reduce alcohol related harms it would be naïve to suggest that restrictions on the availability of alcohol have little or no place in the best practice regulatory toolkit. On the contrary, the research evidence (Commonwealth of Australia 2004, pp.188-192) indicates that physical restrictions on availability rank only after prices/taxes as effective instruments.

65. Roche (1999) appropriately notes that the correlation between consumption and harms is not perfect. It is difficult to isolate the specific influences when changes in consumption and harm are observed. Some of the major confounding factors include changes in secularism and cultural attitudes to drinking, greater availability (and use) of motor vehicles, changing population cohorts, rising incomes and changes in modes of service delivery.

66. It is hard to separate out changes in social attitudes which then may allow for more liberalised liquor outlet density and conditions, and erosion of price with consequent increase in consumption and problems. Which came first? More permissive attitudes to alcohol or changes in outlets and price?

C. Evidence on regulatory options

67. In this section we present a brief overview of the current available research relating to regulation of packaged liquor and minimisation of harm arising from consumption, before progressing to examine individual options in more detail.

Research overview

68. The evidence on various options for regulation of alcohol has gained considerable attention from researchers.

> *The research establishes beyond doubt that public health measures of proven effectiveness are available to serve the public good by reducing the widespread costs and pain related to alcohol use.*
>
> (Babor, Caetano et al. 2003, p.5)

> *Health and social policies that influence the availability of alcohol, the social circumstances of its use, and its retail price are likely to reduce the harm caused by alcohol in a society.*
>
> (Babor, Caetano et al. 2003, p.7)

A considerable body of evidence now exists on the effectiveness of specific interventions to reduce harm related to alcohol consumption. This evidence has recently been comprehensively reviewed by WHO and national governments. It includes:

> *... experimental studies, survey research, analysis of archival and official statistics, time-series analyses, qualitative research, and natural experiments. In many studies quasi-experimental research designs have been used. This type of research typically involves before and after measurement of a group, community, or other jurisdiction that is exposed to an intervention, and similar measurement is conducted in comparable groups or communities where no intervention took place. Natural experiments have played a large role in this literature. For example, when sobriety checks ... are implemented in one jurisdiction and not in an adjacent one, the relative impact of the policy can be examined over time through comparative analysis of archival data such as accident rates or drinking-driving arrests.*
>
> (Babor, Caetano et al. 2003, p.96)

69. The available systematic assessments of the effectiveness of various interventions are founded on the exceptionally high standard of proof that underlies a medical approach. The underlying frame of medical interventions is to "first do no harm". However, while this approach provides a strong foundation for medical intervention, it appears to be a much higher standard of proof than is applied by governments (whether national, state or local) in most other areas of public and social policy in Australia and the OECD economies.

Further, the dominance of the medical profession in these assessments may not have advanced interventions that may have generated net public benefits. The failure of governments to recognise the dominant medical framework applied to these assessments can be seen as holding back the menu of policy interventions that might be considered desirable.

As a result, the major international reviews (WHO, other international and Australian) should be seen as exceptionally conservative in terms of generating viable approaches to reducing harms, with many promising research leads not being progressed to implementation.

70. The medical and health economics literature reveals a surprisingly wide range of measures known to be effective in reducing consumption, high risk behaviour and alcohol-related harm. However, in economic terms, none of these measures are performance- or market-based; rather, they are all input controls. Thus, many of the shortcomings and frustrations of current regulatory regimes for alcohol are illustrated by the familiar contrast between input and output/performance based regulation. Nonetheless, the major items in the toolkit can be clearly identified.

'Best practice' regulatory options

71. The most recent and authoritative international study, sponsored by WHO (Babor, Caetano et al. 2003), lists six intervention options in a regulatory package to reduce the cause of chronic and acute harms, i.e., high risk consumption. These are:

i. minimum legal purchase age;

ii. government monopoly of retail sales;

iii. alcohol taxes to increase the price;

iv. restrictions on hours or days of sale;

v. outlet density restriction; and

vi. licensing and enforcement to ensure compliance with these measures.

With the exception of the government owned monopoly on retail sales of alcohol which was not evaluated, the recent review funded by the Australian government (Commonwealth of Australia 2004) endorsed these interventions. In addition it found evidence ranging in quality from 'strong rationale' to 'very strong evidence' based rationale' for four other interventions, i.e.,

vii. restrictions on price discounting (these do not currently extend to sales from liquor stores);

viii. licensee codes of conduct where supported by compliance pressure;

ix. the ability to declare and support special restrictions, including prohibition for indigenous communities; and

x. the ability to discriminate by product type and/or alcohol content. (Commonwealth of Australia 2004)

Each of the above 10 interventions can be related directly to specific outcomes for which there is strong evidence of effective impact.

72. While these interventions have been identified as 'best practice' in terms of the high standards applied, others not listed above might be seen as warranted if other standards of proof were applied, more consistent with other areas of public policy.

An example is restrictions on alcohol promotions, especially to young people. While the early studies gave mixed results on the effectiveness of such restrictions, the more recent evidence is much less equivocal − prompting the WHO to harden its technical advice and policy stance.[8]

Specific interventions

73. Economic theory and commonsense point to the need to have a portfolio of interventions in order to deal with each of major sources of harm in alcohol consumption. Thus, a state government and its local communities are likely to require a portfolio of instruments dealing with general availability of alcohol, the particular problems raised by heavy and binge drinkers, and the minimisation of acute harms such as drink driving accidents.

74. Summary assessments of the effectiveness of specific interventions are provided below.

State monopoly supply and sale

75. There is strong evidence that government monopolies on the manufacture, supply and sale of liquor tends to result in reduced harm. (Babor, Caetano et al. 2003)

76. Some countries permit regional authorities to decide between licensed or monopoly distribution systems. At least seven significant OECD economies permit government monopoly at some stage of alcohol supply and sale (WHO 1999, p.52).

Table 7 – Selected examples of countries with state monopolies on retail supply of alcohol

United States of America	License or monopoly a state option. 18 states have wholesale monopoly, of which 10 have retail monopoly, 3 contract out retail operations to agencies, while the remainder do not have retail monopoly.
Canada	Provincial monopolies controlling sale of alcohol for off-premise consumption.
Finland	Retail monopoly on alcoholic beverages (except fermented products under 4.7% alcohol by volume).
Sweden	State monopoly on retail sales, except sale of medium or lower-strength beer permitted in grocery stores.

Source: (WHO 1999, p.52)

[8] On this particular matter, *The Prevention of Substance Use, Risk and Harm in Australia* (Commonwealth of Australia 2004), page 187, appears to be both dated and incorrect.

77. From an economic perspective, the use of state-owned monopolies as a major instrument to achieve a strongly held objective to reduce alcohol availability, consumption and harm has some sense. As is well-known, a monopoly has the potential to earn super profits by pushing up prices and restricting supply; it can discriminate between products and services supplied in terms of prices and sources.

Unlike private suppliers with a strong profit motive, a state-owned monopoly can pursue other objectives including restricting the volume and availability of what it supplies. Rather than seek to innovate and expand the number of markets, a state-owned liquor monopoly has no incentive to, for example, introduce alcohol milk products or alcohol-caffeine mixes or to advertise heavily. On the contrary, it can price discriminate to suppress demand for most popular items and those appealing to high risk drinkers especially. The benefits to health outcomes from this approach would need to be balanced against the economic loss that will result from monopoly.

Prohibitions on availability to young people

78. The most drastic restriction on the physical availability of alcohol is the outright prohibition of the production and sale of alcohol, for instance in some predominantly Islamic countries. Historically, of course, prohibition was relatively common.

Examples of systems of partial prohibition include the United States and New Zealand (WHO 1999, p.50). In NZ, local authorities are permitted to render their jurisdictions dry – there were five dry areas as of 1990. Some states in the US permit banning of alcohol sales as a local option. Some Australian local jurisdictions are designated dry areas, for example Camberwell (Victoria). Alcohol prohibition for indigenous people existed in Australia from about 1850 to (in some parts of the country) the 1970s. In fact, limited prohibitions for indigenous people in Australia still do exist in some communities and are often viewed as successful when instituted at the local level.

79. Setting a legal minimum age for purchase and consumption is now the most common form of alcohol prohibition around the world.

> *Several studies, mostly undertaken in North America, have indicated that such restrictions are effective at reducing motor vehicle crash fatalities among young people, even at relatively low levels of enforcement (Edwards et al., 1994; Wagenaar & Wolfson, 1995). At least 67 countries have some kind of minimum age legislation in place.*
>
> (WHO 1999, p.50)

80. Prior to standardising the minimum legal drinking age to 21 across the states of the US, there was significant variation in the minimum age. US research evidence shows how this has decreased harm associated with alcohol consumption, particularly with regards to motor vehicle accidents:

> *...adolescents from states with higher drinking ages were more likely to abstain from drinking and less likely to be heavy drinkers (Maisto and Rachal, 1980).*

> *... lowering the drinking age increases adolescent drinking and driving whereas raising the drinking age decreases adolescent drinking and driving (e.g. Cook and Tauchen, 1984; Smith et al, 1984; Arnold, 1985; Wagenaar, 1986a, 1986b; Saffer and Grossman, 1987).*
>
> *... raising the MLDA is an effective policy in helping to prevent traffic crashes.*
>
> (Roche 1999, p.48)

81. Most importantly in Australia, research also demonstrates that more effective enforcement of compliance with the current minimum legal age of purchase would increase the effectiveness of this intervention substantially.

> *The minimum age prohibition is widely flouted in the US. Many researchers believe that the lower level Blood Alcohol Concentration for probationary drivers in Australia is a better-targeted form of this prohibition.*
>
> (Wodak, 2005)

Under-age purchasing of alcohol from commercial outlets (as opposed to obtaining alcohol from parents and friends) is rife in Australia. Among underage high school students, binge drinkers are more likely to obtain their alcohol from commercial outlets than are non-binge drinkers.

> *... among underage high school students, more binge drinkers reported using commercial outlets as their source of alcohol than non-binge drinkers. ... the most common method of obtaining alcohol for this group was purchasing it at liquor stores themselves. Increasingly, it is noted that commercial outlets have an important role to play in regulating the availability of alcohol to youth.*
>
> (Roche 1999, pp.15-16)

Price and taxation

82. The price of alcohol has a very direct impact upon the levels of purchase and consumption.

> *Provision of alcohol at lower costs is known to increase consumption among various groups, especially those on limited incomes.*
>
> (Roche 1999, p.4)

Consequently, alcohol taxes are known to potentially decrease drinking-related harms:

> *... increased alcoholic beverage taxes and prices are related to reductions in alcohol use and related problems.*
>
> (Babor, Caetano et al. 2003, p.101)

> *Although seldom designed purely as such, alcohol taxes may be a potent tool of prevention policy. For price-sensitive young drinkers in particular, increases in alcohol taxes have been shown in some developed countries to be effective in reducing harmful consequences of drinking such as traffic casualties, cirrhosis deaths, and violence…*
>
> (WHO 1999, p.54)

> *... youth beer consumption is inversely related to both the monetary price and the minimum legal drinking age. In addition, ... frequent or heavy drinkers are more sensitive to price than infrequent or light drinkers (Grossman et al. 1987). Similar research indicates that higher beer excise taxes significantly reduce both the frequency of youth drinking and the probability of heavy drinking (Laixuthai and Chaloupka 1993), and that beer prices have a significant effect on underage drinking and binge drinking among female college students (Chaloupka and Wechsler 1996).*
>
> *... the states that raised their liquor tax had a greater reduction or smaller increase in cirrhosis mortality than other states in the corresponding year. ... concluded that liquor consumption, including that of heavy drinkers as indicated by cirrhosis mortality, was quite responsive to price. ...They found that higher alcoholic beverage prices did not lead to significant reductions in these kinds of mortality statistics. ...In an attempt to get more directly at the relationship between beverage taxes and problem outcomes, particularly among youth, Saffer and Grossman (1987a,b) examined the impact of beer excise duties on youth motor vehicle fatality rates. Both studies concluded that increases in beer taxes significantly reduced youth motor vehicle fatalities.*
>
> (Babor, Caetano et al. 2003, pp.110-111)

83. The Monograph produced for the Department of Health and Ageing (Commonwealth of Australia 2004) notes that:

> *Universal regulatory interventions for legal drugs are essential ... young people as well as heavy drinkers and smokers, are most affected by price increases ... For alcohol there are sound [tax] policies in place, from a public health point of view, in relation to beer and spirits. The main weakness in current policy is the absence of an alcohol content-based tax on wines, resulting in the availability of very cheap bulk wines favoured by vulnerable groups and problem drinkers. Taxation policy also encourages the consumption of wine-based fruit drinks ('alcopops') and pre-,mixed spirits that are particularly marketed to young people.*

And also,

> *There have been several significant developments in the alcohol market over the past 30 years.*[188] *One has been the rise in the popularity of Australian wine, both domestically and internationally. This has been encouraged by a favourable taxation regime for wine in comparison with beer and spirits. This situation encourages both the widespread distribution and consumption of cheap packaged wine (cask wine is an Australian invention) and the production of wine-based fruit drinks ('alcopops'). Another important development has been the rise in popularity of low and mid-strength beers, apparently encouraged both by tax breaks for lower strength beers and aggressive enforcement of drink-driving laws across Australia in the 1990s.*
>
> (Commonwealth of Australia 2004, pp.35-36)

84. Nonetheless, alcohol in Australia is highly affordable.

First, WHO surveys of off-premise prices indicate that the cost of alcohol in Australia is relatively low when compared with per capita GDP. On this measure, Australia ranks 16th among 104 countries for, say, the affordability of a glass of beer[9]. On this measure, alcohol is also highly affordable in other OECD countries indicating that the comparative cost of alcohol does not keep pace with income growth.

Second, not only is alcohol cheap compared with income, but relative to alternative soft drink beverages it is inexpensive. Indeed, in the *Global Status Report: Alcohol Policy* (WHO 2004) the World Health Organisation reports on a 'beer/cola index' which shows that the relative price of beer in Australia was lower than in any of the 103 countries surveyed[10]. These findings are important since they indicate that in Australia there is less incentive to consume soft drinks than beer. This incentive effect is relevant to the general population, but it is particularly relevant to high risk drinkers, especially underage drinkers. This affordability is also important for regular and heavy drinkers.

Indeed, WHO states,

> *The rationale for looking at the price of beer and a soft drink is that one aspect of pricing policy of alcohol beverages by governments can be to encourage the consumption of non-alcohol drinks. If, indeed, the aim is to promote non-alcohol drinks or less consumption of alcohol beverages, it follows that a soft drink should be cheaper than beer.*
>
> (WHO 2004, p.45)

85. What public health advocates desire from alcohol taxation reform is:

- a move from *ad valorem* to a volumetric tax on alcohol content with special arrangements to encourage lower concentration beverages;
- hypothecation (earmarking funds to be directed towards related harms);
- a slight increase in overall price, but not enough to encourage a black market.

86. This basic thrust is supported by a recent New Zealand Treasury paper which considered the role of government in the case of alcohol externalities. It concluded:

> *A specific tax can be justified in the case of alcohol. The externalities are large and there is sufficient information on which to base a tax. Given the information constraints the specific tax must be applied uniformly across a range of units of consumption, rather than to particular individuals. Where an optimal uniform tax is imposed it is reasonable to assume that the amount of revenue collected by the government would be at least as large as the total externality.*
>
> (Barker 2002)

[9] Similarly, it ranks 28th of 95 and 20th of 90 countries for wine and spirits respectively.

[10] This survey only included off-premise prices.

Licensing

> *A consistent theme in the literature is that prevention regulations directed toward commercial sellers of alcohol and backed-up with enforcement are more effective than prevention programs relying solely on education or persuasion directed toward individual drinkers. ... The most direct and immediate enforcement mechanism in many jurisdictions is the requirement that the seller hold a specific license to sell alcoholic beverages. If the system has effective power to suspend or revoke a license in the case of selling infractions, it can be an effective and flexible instrument for holding down rates of alcohol-related problems.*
>
> (Babor, Caetano et al. 2003, p.133)

87. The licensing of businesses selling packaged liquor:

- controls availability by restricting the number of licensed sites either via caps on total number of licensed sites in state or region or by restrictive eligibility criteria, and
- provides the authority to set performance/behaviour standards and conditions such as opening hours to monitor that behaviour and compliance and to sanction non-compliance.

The former is important in restricting alcohol availability to both general population and to specific high-risk groups. The latter is important in terms of enforcing laws prohibiting underage purchasing/sales to intoxicated persons.

88. Since enforcement theory points to the efficacy of graduated sanctions against offenders, sanctions should not be limited to the complete loss of licence. For example, sanctions can be broadened to include sanctions against managers or staff as well as owners. Changes could also be made to reduce licences, as well as removal. This can also work in reverse, eg. extensions or other privileges could be granted for good behaviour.

89. With the increasing concentration of major corporations in liquor retailing (separation of ownership from management), licensing and sanction options may need to be considered for the company, the venue and/or the manager-employee involved in the offence. Insights can be obtained by similar layered licensing and sanctions used in the gaming, abalone, scallops and racing industries.

90. The consistent evidence is that underage purchasing has in fact been relatively easy (see quote under paragraph 81); that underage drinking is widespread and increasing and that direct purchases by those underage drinkers are the major source of supply indicates poor compliance by licensed sellers of packaged liquor.

91. Any effective licensing system requires monitoring and information systems and these are not always in place currently.

> *There are currently inadequate information systems in some licensing authorities to enable identification of risk premises, so as to determine whether they should continue trading.*
>
> (Commonwealth of Australia 2004, p.246)

92. Important practical issues must also be addressed. It is difficult to train police to do licensing work; there are risks of corruption if all licensing work is done by the same police; licensing work requires maturity and experienced police; it can be hard to allocate police to licensing work when more urgent matters always crowd out important matters; information about licensees who have seriously transgressed is rarely made public. Another problem is the unlevel playing field in the licensing courts, where licence applicants may have the resources to hire counsel very experienced in licensing matters while the community may only be represented by a junior legal officer with no previous licensing experience.

93. In an environment where liquor licences have significant value due to scarcity and monopoly rents it may also be more difficult to persuade a licensing authority to revoke licences of persistent offenders.

Outlet density

94. The majority of international literature appears to support the 'availability hypothesis', i.e. that availability is correlated with consumption and harm levels. For example, the Australian researcher Roche notes:

> *There is a substantial body of research which supports the view that regulating and restricting the geographic and population distribution of alcohol outlets could beneficially reduce problem rates. Such research has shown a relation between the number and density of liquor outlets and the level of alcohol consumption (Gruenewald et al, 1993).*
>
> (Roche 1999, p.47)

However, Roche (1999) appropriately notes that the correlation between consumption and harms is not perfect, as other factors are at play. (refer paragraph 65).

95. The majority of the available international research indicates that changes in the number of licensed outlets have a material effect on alcohol consumption and associated harms.

Having reviewed the evidence and noted that local conditions vary, the recent Australian Commonwealth Government Monograph notes:

> *... the overall evidence base remains clear that outlet density is a powerful driver of levels of consumption and harm.*
>
> (Commonwealth of Australia 2004, p.190)

96. While the policy direction to minimise harm by restricting availability may be clear, how to achieve and implement it in practice is not. As noted by the Australian review:

> *No operational model for achieving this has been developed ...*
>
> *There is a need to develop and test a practical model for approving* [and monitoring licensee behaviour] *so as to maintain a balance between meeting consumer demand and addressing public health and safety issues.*
>
> (Commonwealth of Australia 2004, p.190)

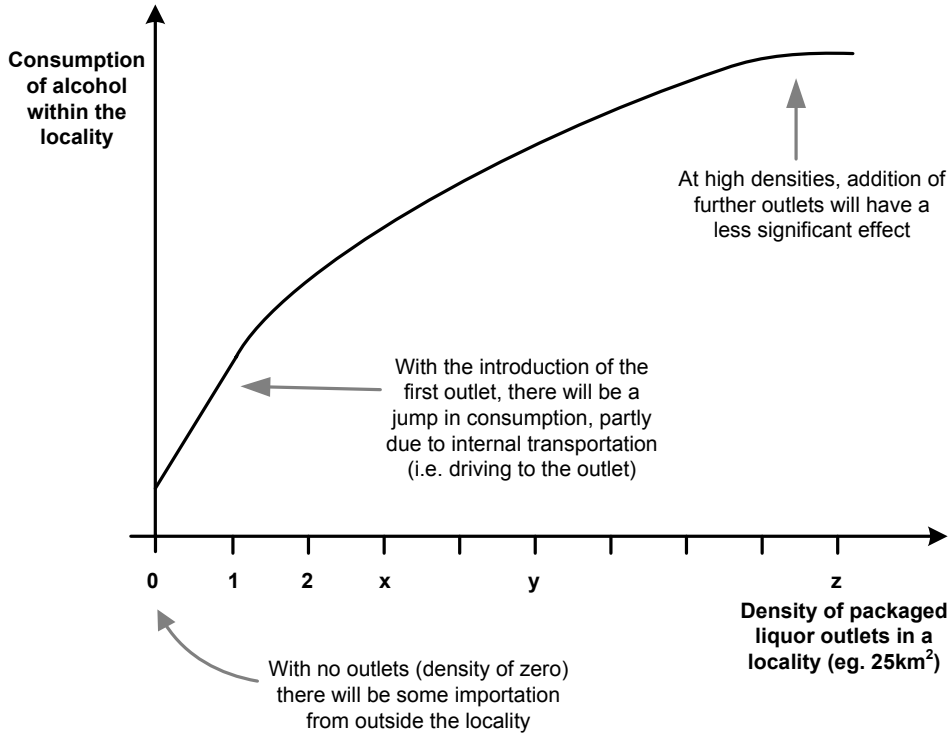
Moreover, the best method of achieving a balance between meeting consumer demand and public health and safety measures is likely to vary from situation to situation and different/flexible models may be required to achieve this.

97. However, to date research does not appear to have addressed the precise nature of the relationship(s) between outlet number and consumption and harm. For instance, are the relationship(s) linear, or more likely exhibit threshold effects? (Refer Figure 10.)

That is, with threshold effects, changes at high (and maybe low) levels of outlet density may cause little change in practical 'availability'. In a local area which has already reached a saturation point, the addition of a small number of liquor outlets will have minimal effect, whereas additional outlets may have a significant effect in an area where existing densities are lower. Over time, the relevant 'size' of the locality may vary with changes in community attitudes.

We have not sighted Australian (or international) discussion of this issue in the reported literature. The implication is, once again, that discretion and input at the local level is important, to take into account impacts based on existing density.

Figure 10 – Example of possible relationship between outlet density and packaged liquor consumption



More generally, there appears a clear need for on-ground research and analysis and to reconsider the regulatory and licensing framework for outlet density and location.

Outlet location

98. There is research evidence that location of outlets is an important consideration. For example, US researchers note:

Locating an outlet near a highway system may affect alcohol-related crashes more than locating the same outlet in a dense downtown area.

(Gruenewald and Treno 2000)

Outlet type

99. A consumer may purchase packaged liquor from several different types of commercial outlet: for example, bottleshops, discount liquor barns, specialty liquor stores, grocery stores (including supermarkets), and convenience stores (including milk bars).

    To the extent that different types of outlets sell liquor to consumers in different environmental conditions or settings and at different times, there is potential for differing patterns of consumption and level of risk.

100. First, convenience stores and supermarkets, for example, may trade for longer hours than bottleshops. Longer trading hours increases late night and opportunistic purchases and therefore high-risk drinking (refer section commencing paragraph 106).

101. Second, convenience and supermarkets may be more likely to engage in price discounting promotions, which have been shown to increase risky consumption. In addition, prices may well be lowered due to increased buying power and efficiencies of large chains (refer section commencing paragraph 82)

102. Third, there is a perception, at least, that compliance with regulations, especially regarding sale to minors may be lower in the case of non-specialty liquor retail, such as convenience and grocery stores[11].

    However, larger chains may be better resourced to develop policies and procedures to ensure compliance with regulations. In addition, there is the argument that large chains may have more incentive to ensure compliance for public relations reasons. There is wide scope for variation of in-store layout, staffing and other dimensions. For instance, whether liquor is presented in distinct or separate isles in groceries, or if its purchase requires proceeding through a physically distinct register.

103. Finally, there is concern over the 'normalisation' of alcohol (medically classed as a drug) as a consumer good when it is sold alongside other foodstuffs. The ready availability of alcohol in close proximity to the muesli, the fruit and vegies or the detergent tends to treat alcohol as a very familiar, very 'ordinary commodity' − no different from other retail goods. These concerns over 'normalisation' of attitudes to alcohol and the erosion of previous social norms are not limited to sales of packaged liquor at grocery stores, but extend and strengthen in the case against convenience stores and petrol stations.

[11] Patterns of acquisition of alcoholic beverages by underage youth have been studied using focus group methods. In one US study, results showed that: "*In the mid to late teens, young people purchase alcohol from commercial alcohol outlets, despite the fact that 21 is the legal age for purchasing alcohol. Factors reported to increase the rate of successful alcohol purchases include female buyer, male seller, young seller, and convenience store outlet. Results of focus group interviews revealed the easy accessibility of alcoholic beverages to underage youth. ... Focus group participants reported greater ease in purchasing alcohol at some types of outlets than others. There was consensus that convenience stores are the easiest places to purchase alcohol.*"
Wagenaar, A. C., J. R. Finnegan, et al. (1993). "Where and how adolescents obtain alcoholic beverages." Public Health Reports **108**(4): 459(6).

104. In summary, there are several public health reasons for discriminating between the types of retail sales outlets permitted to obtain a liquor licence. But in many cases alternative forms of non-discriminatory regulation may be available. Generally regulating the times at which alcohol may be sold is likely to distort competition to a lesser extent than restricting sales to bottleshops on the basis that bottle shops are likely to be open for shorter hours. The maintenance of separate premises restrictions that require designation of specific space for liquor sales in supermarkets and other non specialised outlets and separate check out facilities makes restricting times of sale simpler and to a degree addresses concerns regarding normalisation.

105. The case for restricting alcohol sales to specialist liquor stores is strongest where the rigour and resources committed to ensuring compliance with the licensing regime are least. But if a greater level of resources and commitment to enforce compliance is forthcoming allowing a greater range in the type of licensed retail entities would be less likely to have adverse consequences. Liberalisation of outlet type or numbers without a consequent increase in the enforcement of licensing is however a recipe for increased harm.

Outlet trading hours

106. Both the WHO and DHA-sponsored reviews of the scientific papers on the impact of changing the hours and/or days of trading find strong evidence that reducing hours or days when alcohol can be purchased is associated with significant changes in over-all harm. This finding is particularly true for bars and other licensed premises, but is also true for opening restrictions for sales of packaged liquor.

> *A WHO generalized cost-effectiveness analysis included a 'restricted access' option, choosing Saturday closing as its exemplary alcohol control measure. It was estimated that Saturday closing would have considerable effectiveness and cost-effectiveness in most parts of the world, though clearly less than a substantial rise in alcohol taxation.*
>
> (Babor, Caetano et al. 2003, p.132)

107. The Australian evidence for bars and licensed premises in both NSW and WA indicates that even small changes in hours can be associated with significant local impact.

108. Restricted hours or days of sale for off-premises outlets selling packaged liquor are likely to have greatest impact on persons who do not keep a ready supply of alcohol, either because they cannot afford to or because they do not plan ahead. (Babor, Caetano et al. 2003, p.124) For example, the decrease in violence resulting from Norway's 1984 Saturday closing suggests that the people most affected by this temporary unavailability were more likely to be involved in domestic violence and disruptive intoxication.

109. In summary, reduced hours and days of sale can reduce alcohol consumption and problem levels, with the effects concentrated during the time of closure but not matched by counter-balancing changes at other time of the week, i.e., since a large part of alcohol purchase and consumption is opportunistic, restrictions on hours and days of purchase are effective. (Babor, Caetano et al. 2003) Closure of packaged liquor sales on certain days may also be warranted and desired in many indigenous communities.

Server responsibility and liability

110. Research consistently shows that regulation and enforcement of server responsibility is an effective way to reduce harm.

> *An analysis of a local policy to enforce laws against service to intoxicated customers showed a positive return on program investment (Levy and Miller 1995).*
>
> (Babor, Caetano et al. 2003, p.132)

111. One particular method of ensuring server responsibility applied in the US is legislation to make the server or venue explicitly liable. Such US 'Dram shop' laws:

> *Holding servers legally liable for the consequences of providing more alcohol to persons who are already intoxicated or those underage has shown consistent benefits as a policy measure in the US. In particular, states that hold bar owners and staff legally liable for damage attributable to alcohol intoxication have lower rates of traffic fatalities (Chaloupka et al. 1993; Sloan et al. 1994a; Ruhm 1996) and homicide (Sloan et al. 1994b), compared to states that do not have this liability. In addition, Wagenaar and Holder (1991) found that when one state deliberately distributed publicity about the legal liability of servers, there was a 12% decrease in single-vehicle night-time injury-producing traffic crashes, a statistically significant change when compared to trends in other states. Several studies suggest that these changes are mediated by the effects of legal liability on the attitudes and behaviour of bar owners and staff (Holder et al. 1993; Sloan et al. 2000).*
>
> (Babor, Caetano et al. 2003, pp.144-145)

112. Australian governments have not to date assigned liability and responsibility via legislation. Nonetheless, alcohol has parallels with tobacco and there is scope for some innovation and tightening of responsibilities. For instance,

- parents could be assigned legal responsibility for the actions of their under age children when they drink; and
- all outlets for packaged liquor sales could hold a legislated responsibility and liability for adverse actions where the sales were to intoxicated or underage.

Random breath testing

113. Australia is cited repeatedly in the international research and reviews as one of the most successful countries in terms of reducing road accidents and deaths due to drink driving.

> *Thus prevention of drinking-driving is one of the big public health success stories from the last quarter of the 20th century.*
>
> (Babor, Caetano et al. 2003p, 159)

> *... deterrent impact of RBT (random breath testing) also provided heavy drinkers with a legitimate excuse to drink less when drinking with friends. ...highly visible, non-selective testing can have a sustained and significant effect in reducing drinking-driving and the associated crashes, injuries, and deaths.*
>
> (Babor, Caetano et al. 2003, p.161)

> *Thus evidence supports a conclusion that setting a reasonably low level of BAC, undertaking highly frequent and visible enforcement of existing BAC limits, threatening and actually suspending driving privileges, and establishing certainty of punishment especially through randomized enforcement, form a combined strategy with the strongest potential for prevention success.*
>
> (Babor, Caetano et al. 2003p, 163)

> *Laboratory research has demonstrated that tasks related to driving performance are affected at BAC (blood alcohol concentration) levels much lower than those normally associated with legal intoxication (Moskowitz and Robinson 1988).*
>
> (Babor, Caetano et al. 2003, p.157)

Community-based programs

114. There is a developing evidence base, mainly from overseas studies, that the community is an effective location for organising and delivery prevention measures targeted at legal drugs, especially alcohol. This tradition has matured to the extent that a set of guiding principles for sound process, optimal content and good outcomes can be distilled. The weight of published evidence suggests that community-based interventions that target structural policy change at the local level are more effective than approaches with the less focused aim of community mobilisation. Thus, community action to: restrict trading hours in high-risk communities, increase enforcement of drink-driving and liquor laws, and restrict local alcohol availability, are reported to have achieved the most positive results. This is also one of the few areas of demonstrated benefit for interventions within indigenous communities. Programs such as Communities That Care are being implemented in Australia and combine elements of community mobilisation and structured community action. By supporting local coalitions to tailor evidence-based prevention strategies to local conditions, these programs hold the promise of encouraging a well-co-ordinated selection of prevention strategies. (Commonwealth of Australia 2004, pp.246-7)

Summary and conclusion

115. Best practice regulation should employ intervention with a strong rationale and evidence of effectiveness. These have been extensively reviewed in the case of alcohol policy.

116. There are some general points to note when considering interventions:

- First, avoid distorting competition within a market which must be regulated in order to minimise harms and costs.
- Second, regulation which reduces competition by reducing the size of the market is of lesser concern.

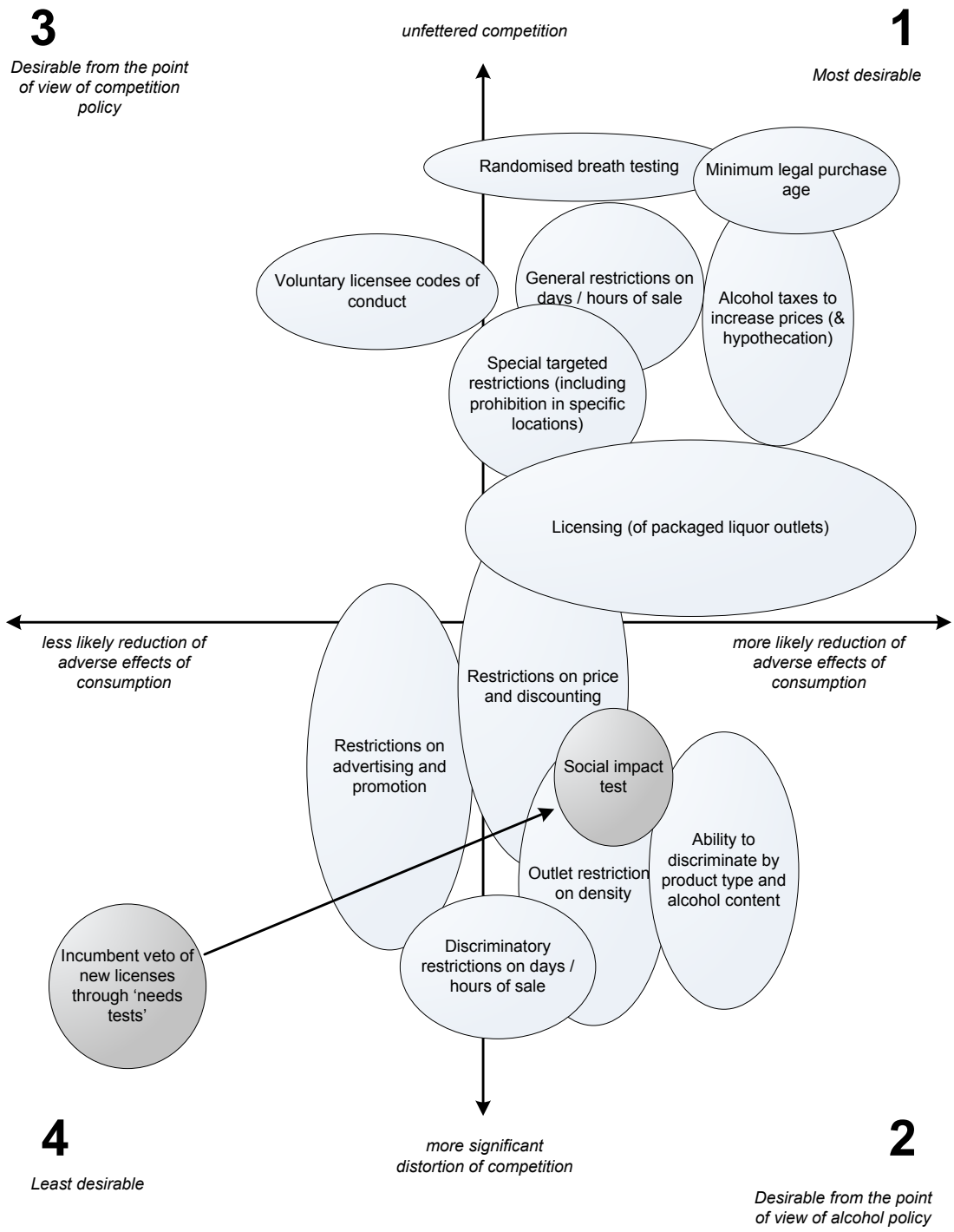
Figure 11 seeks to show the various possible interventions on two relative scales: their likelihood of reducing the harm associated with consumption, and their (side-) effect on competition.

Quadrant 1 groups those interventions which can potentially reduce harm the most whilst having the least effect on competition (eg., Hypothecated taxes). Quadrant 2 includes those interventions which may have the desired harm reduction effect on one hand, but which unfortunately impact much more greatly on competition principles (e.g., restrictions on density).

Bubbles with a larger horizontal component indicate interventions where there is potentially a large variation in actual impact on harm; these are therefore areas where enforcement is key (eg., licensing and RBT).

The 'needs tests' and 'social impact tests' alternatives are highlighted in darker shading as a key example of area of alcohol policy which has caused problems for competition policy.

Figure 11 – Summary of various possible interventions (authors' interpretation)



Source: MJA analysis

117. Based on international and Australian reviews and individual research studies cited, MJA considers that a best practice approach to liquor regulation would include 10 strategies. These include five of the six identified by *Babor et al* (excluding state monopoly on retail sales) and the four strategies identified by the Commonwealth's Monograph. Additionally, after examining the international literature reviews, we include the possibility of restrictions on advertising/promotion (despite its omission from the Commonwealth's Monograph).

Therefore, the 10 suggested strategies are:

i. minimum legal purchase age;
ii. alcohol taxes to increase price, particularly hypothecated taxes with revenue earmarked to address harms;
iii. restrictions on hours or days of sale;
iv. outlet density restriction;
v. licensing and enforcement to ensure compliance with these measures.
vi. restrictions on price discounting (these do not currently extend to sales from liquor stores);
vii. licensee codes of conduct where supported by compliance pressure;
viii. the ability to declare and support special restrictions, including prohibition for indigenous communities;
ix. ability to discriminate by product type and/or alcohol content; and
x. restrictions on advertising/promotion.

118. The mix and balance between these strategies must be tuned to the particular circumstances of the jurisdiction concerned. The task in devising a policy for regulation of alcohol sales is to lessen harm (and thus advance the public interests) while minimising effects on competition.

D. Guidelines for best practice regulation

119. Alcohol regulation should be consistent with general principles and guidelines for regulatory best practice set out below. These are general principles and are not limited to the regulation of alcohol or packaged liquor sales alone. They are based upon consideration and reflection on CoAG's Principles and Guidelines for National Standard Setting and Regulatory Action (Council of Australian Governments 2004). Alcohol policy in Australia (and it appears worldwide) is heavily based on input controls.

a. **Regulation should have clearly identifiable objectives and outcomes.** The objective is the effective achievement/enforcement of the stated objectives, e.g. to reduce or eliminate behaviour leading to negative externalities, or to induce or require behaviour such as information disclosure which allows markets to operate more efficiently and effectively.

b. **The development and design of regulation should be scientifically rigorous and evidence based**, ie., there should be reasonable evidence to suggest that it is likely to be effective in achieving its objectives.

c. **Regulation should be enforced and effective.** Un-enforced regulation reduces effectiveness, undermines attitudes and responsibility and allows capriciousness in enforcement where it does occur.

d. **Regulatory burden should be minimised.** Compliance strategies and enforcement should ensure that the objectives are achieved effectively and at lowest compliance cost.

e. **Regulation of social behaviours** (including consumption of illicit and licit drugs) must recognise the three levels of government in Australia's federal system, ie., the Commonwealth, the States and Territories and local government, and the need for appropriate assignment of regulatory responsibilities and instruments between them.

f. **Regulation should be preferably be focussed on output or performance** rather than regulating the inputs used in the production of that output.

g. **Individual regulations should be designed and assessed** within the context of the situation and the bundle of potential and existing regulations. While many individual interventions can be appropriately assigned to deal with specific problems/objectives, it is also true that there is some substitution between them.

h. **Local externalities require local action.** Where the negative externalities in question occur at the local level, local communities are entitled to express and seek to implement their views on what is desirable and acceptable in their neighbourhood.

i. **The burden of proof that regulation is necessary lies with the proponents** – as a general rule. However, this burden should not be unnecessarily duplicated again and again. For instance, where local governments wish to apply planning laws to restrict outlet numbers and density, State legislation can empower and facilitate this action including by removing the need to prove that mechanisms (already demonstrated at the population level) apply in each and every case. For example, use of precedents may reduce liquor licence application costs to business and promote efficient expansion.

j. **Processes for judgement and discretion in regulation should be impartial**, avoid opportunity for anti-competitive motives and not be administered/directly influenced, therefore, by competitors.

k. **Unnecessary impacts should be avoided.** Unless the profit making incentive is inimical to the reduction or elimination of the behaviour creating the negative externalities, then regulation should minimise impacts on competition. Conversely, unnecessary and unintended impacts on alcohol policy objectives should be avoided.

l. **Regulation should not discriminate between different suppliers in competition**, unless there are health, safety or other public policy reasons for doing so. Otherwise there should be no discrimination: the same rules, standards and restrictions should apply to all. The avoidance of discrimination does not require that each supplier is entitled to supply what they wish to the market.

120. While the principles of best practice regulation are essentially independent of the objectives, the package of best practice regulation will vary with the objectives and with the evidence on the effectiveness, costs and efficiency of the different interventions at the local situation.

Appendix – Current NCP reform progress summary

Table 8 – Summary of most recent NCC assessments of state and territory progress with NCP reform in the area of regulation of liquor sales

NSW	For the 2003 NCP assessment, the Council determined that the Registered Clubs Act and the Liquor Act underpinned an anticompetitive needs test that benefited incumbent sellers of liquor. Despite having commenced a review of the legislation in 1998, the government had not completed its review and reform activity. The Council recommended, and the Australian Government imposed, a permanent deduction of 5 per cent of 2003–04 competition payments for non-compliance. In February 2004, the New South Wales Government introduced legislative amendments that removed the needs test and substituted a social impact assessment (SIA). The Council has reservations about the operation of the SIA mechanism, particularly its complexity and associated compliance costs. The Council intends to monitor the operation of the new regulations in the lead-up to the 2005 NCP assessment and, in particular, to determine whether the onerous processes are to the detriment of potential smaller businesses. That said, for the 2004 NCP assessment, the Council is satisfied that New South Wales has met its CPA obligations and that no further penalty is warranted.
Vic	[From 2002 NCC Assessment] Victoria has commenced the phase out of legislation capping the number of licenses that can be held by an entity. There are benefits to the community (in the form of reduced transitional costs to independent retailers) in phasing reform beyond 30 June 2002. The phased approach is consistent with the CoAG decision that a transitional approach extending beyond 30 June 2002 complies with CPA principles where a public interest case supports the transition.
Qld	For the 2003 NCP assessment, the Council determined that the Liquor Act requires sellers of packaged liquor to hold a hotel licence and provide bar facilities. It also regulates the number of bottle shops per licence (limit of three) and their configuration. The restrictions apply statewide, notwithstanding an objective of protecting country hotels. The Council recommended, and the Australia Government imposed, a permanent deduction of 5 per cent of 2003–04 competition payments. In response to the 2003 NCP assessment, the government indicated its intention to retain the status quo. Accordingly, the Council recommends a permanent deduction of 5 per cent of 2004–05 competition payments for continued non-compliance.

WA	The Liquor Licensing Act contains a needs test, whereby a licence application can be rejected because there are incumbent liquor outlets in the area. The legislation further discriminates between hotels and liquor stores, with only hotels able to trade on Sundays. For the 2003 NCP assessment, the Council recommended, and the Australian Government imposed, a permanent deduction of 5 per cent of 2003–04 competition payments. This recommendation was based on the Council's assessment that the government's announcement that reforms would not take effect before mid-2005 did not accord with CoAG's direction that an appropriate transitional reform program must be underpinned by a robust public interest case. Recently, the government announced that it would not proceed with the proposed reforms because it considered that they would not be passed by the Legislative Council. Instead, the government is undertaking a review of the legislation. Accordingly, the Council recommends a permanent deduction of 5 per cent of 2004–05 competition payments, for continued non-compliance.
SA	South Australia's Liquor Licensing Act contains a needs test whereby the licensing authority can reject a licence application because there are already liquor outlets in the area. For the 2003 NCP assessment, the Council recommended, and the Australian Government imposed, a permanent deduction of 5 per cent of 2003–04 competition payments, for non-compliance. In the lead-up to this 2004 NCP assessment, the government made no progress in this area. The Council thus recommends a permanent deduction of 5 per cent of 2004–05 competition payments, for continued non-compliance.
Tas	[In a previous assessment] Tasmania removed a requirement that non-hotel liquor stores sell a minimum quantity of 9 litres in each transaction. The NCP review found that the restriction not only put these stores at a competitive disadvantage relative to hotels, but encouraged irresponsible consumption of alcohol.
NT	At the time of the 2003 NCP assessment, the Northern Territory's Liquor Act contained a needs test whereby a licence application could be rejected if existing sellers could meet consumer needs. The legislation further discriminated between hotels and liquor stores, with only hotels able to trade on Sundays. The Council recommended, and the Australian Government imposed, a permanent deduction of 5 per cent of 2003–04 competition payments, for non-compliance. The Northern Territory has demonstrated substantial progress in this area since the 2003 NCP assessment, particularly by removing the anticompetitive needs test. However, it rejected the recommendation of its review and retained the provisions that discriminate between sellers. It did not provide a convincing public interest case for this course of action. The Council thus recommends a permanent deduction of 5 per cent of 2004-05 competition payments, for continued non-compliance.

Source: (NCC 2004)

References

Alcohol Advisory Council (2001). National Alcohol Strategy 2000-2003, Alcohol Advisory Council of New Zealand & Ministry of Health.

Australian Institute of Health and Welfare (2005). 2004 National Drug Strategy Household Survey.

Babor, T., R. Caetano, et al. (2003). Alcohol: No Ordinary Commodity - Research and Public Policy. New York, Oxford University Press.

Barker, F. (2002). Consumption Externalities and the Role of Government: The Case of Alcohol. New Zealand Treasury.

Boffeta, P. and L. Garfinkel (1990). "Alcohol drinking and mortality among men enrolled in an American Cancer Society prospective study." Epidemiology **1**: 337-339.

Collins, D. and H. Lapsley (2002). Counting the Costs: Estimates of the Social Costs of Drug Abuse in Australia in 1998-9. National Drug Strategy Monograph Series No. 49. Canberra, Commonwealth of Australia.

Commodity Board for the Distilled Spirits Industry (2001). World Drink Trends 2002, Commissie Gedistilleerd (Commission for Distilled Spirits).

Commonwealth of Australia (2004). The Prevention of Substance Use, Risk and Harm in Australia: A Review of the Evidence (Monograph). Report prepared for the Australian Government Department of Health and Ageing by The National Drug Research Centre and the Centre for Adolescent Health.

Council of Australian Governments (2004). Principles and Guidelines for National Standard Setting and Regulatory Action by Ministerial Councils and Standard-Setting Bodies. Amended by COAG June 2004.

Doherty, S. and A. Roche (2003). Alcohol and Licensed Premises: Best Practice in Policing - A Monograph for Police and Policy Makers, Funded by the National Drug Law Enforcement Research Fund, an initiative of the National Drug Strategy.

Gruenewald, P. J. and A. J. Treno (2000). "Local and global alcohol supply: economic and geographic models of community systems." Addiction **95**(12s4).

John Thorpe - Australian Hotels Association Stateline. Melbourne, Australian Broadcasting Corporation.

Loxley, Toumbourou, et al. (2004). The Prevention of Substance Use, Risk and Harm in Australia: A Review of the Evidence (Monograph). Report prepared for the Australian Government Department of Health and Ageing by The National Drug Research Centre and the Centre for Adolescent Health.

National Competition Council (2003). Press Release: NCP does not require unrestricted sale of alcohol.

National Expert Advisory Committee on Alcohol (2001). Alcohol in Australia: Issues and Strategies. Background paper to the National Alcohol Strategy: A Plan for Action 2001 to 2003-04. Commonwealth Department of Health and Aged Care, Commonwealth of Australia.

National Expert Advisory Committee on Alcohol (2001). National Alcohol Strategy: A Plan for Action 2001 to 2003-04. Commonwealth Department of Health and Aged Care, Commonwealth of Australia.

National Health and Medical Research Council. "Bottleshop Poster from Australian Alcohol Guidelines (www.alcoholguidelines.gov.au)."

National Health and Medical Research Council (2001). Australian Alcohol Guidelines: Health Risks and Benefits, Commonwealth of Australia.

NCC (2001). Assessment of Governments' Progress in Implementing National Competition Policy and Related Reforms. Chapter 21: Retail trading arrangements. Melbourne, Commonwealth of Australia.

NCC (2004). Assessment of governments' progress in implementing the National Competition Policy and related reforms: 2004. Volume One: Assessment. Melbourne, Commonwealth of Australia.

NSW Government (2004). Outcomes of the NSW Summit on Alcohol Abuse 2003: Changing the Culture of Alcohol Use in New South Wales, New South Wales Government.

Prime Minister's Strategy Unit (2004). Alcohol Harm Reduction Strategy for England (March 2004), Cabinet Office.

Reid Howie Associates (2003). Liquor Licensing and Public Disorder: Review of Literature on the Impact of Licensing and Other Controls / Audit of Local Initiatives, Scottish Executive Social Research, Edinburgh.

Roche, A. (1999). 'Appendix B: Social issues pertaining to the Liquor Act Review - Queensland 1999', in Department of Tourism, Sport and Racing 1999, Queensland Liquor Act 1992: public benefit test. Brisbane.

Sewel, K. (2002). International Alcohol Policies: A selected literature review, Scottish Executive Social Research, Edinburgh.

Stevenson, R. J. (1996). The impact of alcohol sales on violent crime, property destruction and public disorder. A.-G. s. Department. Sydney, NSW Bureau of Crime Statistics and Research**:** 52.

UK Cabinet Office Strategy Unit (2003). Alcohol misuse: How much does it cost?

Wagenaar, A. C., J. R. Finnegan, et al. (1993). "Where and how adolescents obtain alcoholic beverages." Public Health Reports **108**(4): 459(6).

WHO (1999). Global Status Report on Alcohol, World Health Organization, Geneva.

WHO (2004). Global Status Report: Alcohol Policy, World Health Organization, Geneva.

Wodak, A. (2005). Personal communication, Unpublished.