



The Australian Wine
Research Institute



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Dear Darren,

Draft National Alcohol Strategy Development Discussion Paper, October 2015

Thank you for the opportunity to comment on the Draft National Alcohol Strategy Development Discussion Paper, October 2015. My comments are provided on the following pages, and have been confined to areas and issues in which The Australian Wine Research Institute (AWRI) has access to information, and expertise or knowledge.

The AWRI is a private company limited by guarantee, funded in part by Australia's grapegrowers and winemakers, through their investment body Wine Australia, with matching funds from the Australian government. The AWRI also competes for grants from funding bodies nationally and internationally. It formally affiliated with The University of Adelaide in 1991.

The AWRI has been actively involved in education and research related to wine consumption, health and nutrition since 1991, and has published in excess of 60 peer reviewed journal papers and 11 invited book chapters in this field. Specific areas where the AWRI has supported independent research projects include: gender differences in alcohol metabolism; human health effects of alcohol and wine-derived phenolic compounds; and potential allergens in, and adverse reactions to, wine. The AWRI has been the recipient of a recent research grant from Cancer Australia to undertake a study on the effectiveness of enhanced resveratrol containing wine on reducing biomarkers for colorectal cancer in humans in conjunction with Melbourne Health; a research grant from the [former] Australian Education and Rehabilitation Foundation to study the effectiveness of enhanced resveratrol containing wine on reducing biomarkers for cardiovascular disease in elderly humans with the University of Aberdeen; a grant from the National Wine Foundation to study the effectiveness of enhanced resveratrol containing wine on reducing biomarkers for cognitive decline

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and dysfunction in elderly humans with the Brain Sciences Institute of Swinburne University; and a research grant from the State Government of South Australian in conjunction with the Edmund Mach Foundation, Italy to study the transformation and transfer of phenolic compounds from grapes into wine. Other research co-investigators have included the CSIRO Human Nutrition, Department of Medicine at the University of Western Australia, the Heart Research Institute, Monash University, The Alfred Hospital (Melbourne), and Population Research and Outcomes Studies at the University of Adelaide.

The AWRI also provides alcohol-related health and nutrition lectures to wine marketing and wine science students at The University of Adelaide and University of South Australia, science and bioscience students at The University of Melbourne, medical students at Flinders University, and conducts a workshop on alcohol-related health and nutrition at the triennial Australian Wine Industry Technical Conference. It has also produced and published an educational booklet entitled *The A-Z of information on wine and health issues*, which was initially co-sponsored by the Australian Government Department of Health and Aged Care.

I will be happy to provide further comments and feedback on request, as well as participate in any additional public consultations or forums.

Yours sincerely,



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Comments on Draft National Drug Strategy Development Discussion Paper - October 2015

1. Background and general comments

Background

Previous policy documents specific to alcohol consumption in Australia include the *National Health Policy on Alcohol in Australia* which was adopted in 1989 as part of the National Campaign against Drug Abuse by the Ministerial Council on Drug Strategy, and the *National Alcohol Action Plan 1995-1997*.

In 1997, an external review was undertaken of the policy and progress of the *National Drug Strategy 1993-1997*. The review revealed that in the community the mean level of alcohol consumption had declined since 1985, but the proportion of consumers who drank alcohol heavily at least once per week had only declined by approximately 4%, and consumers who habitually drank heavily were resistant to change (Single and Rohl 1997). Those consumers resistant to change included adolescent and young adult Australians and indigenous Australians. The proportion of all Australians identifying alcohol as contributing to the 'drug' problem had significantly increased over the four years. While there was some community support for whole of population strategies, most support was for strategies limiting alcohol advertising and the service of alcohol to inebriated consumers, and serving only low alcohol beverages at sporting events. Interestingly those consumers supporting whole of population strategies did not habitually drink heavily (ABS 1996).

The main focus of the *National Alcohol Strategy: A plan for action 2001 to 2003-2004* was harm minimisation, but the focus of the strategies therein shifted from alcohol consumption to consequences of use, and conveying these to Australian consumers. The strategies and objectives were also more focused on reducing the risk of and/or containing harm ensuing from consumption rather than reducing the overall level of consumption of an individual or a community (Heather et al. 1993). This Strategy considered that most at-risk consumption was ad hoc and irregular rather than associated with habitual heavy consumption (Stockwell et al. 1996) and hence that there was no definitive group of at-risk consumers that could be targeted (Cahalan and Room 1974, Clark and Cahalan 1976, Cherpitel 1991, Tracy et al. 1992, Skog 1993), apart from young adults. Indeed in 1995, while approximately two-thirds of Australian consumers drank alcohol at a hazardous level on one occasion, generally their consumption could be classified as 'safe' (McAllister 1993, Single and Rohl 1997) but the converse was observed for young adults. An objective was, therefore, to protect those individuals at higher risk of alcohol-related harm as well as specifically preventing harm in young adults, by focusing on at-risk consumption patterns. Initial results from a classroom-based alcohol education program in Western Australia, which enabled young adults to better identify and deal with high-risk consumption situations, suggested that such tailored programs could reduce harm in this high-risk group (McBride et al. 2000). Altogether there were 11 key strategic areas, which included community education and information, specific workplace education, improved training for health professionals to aid early intervention and access to treatment, improved effectiveness of legislative and regulatory initiatives and drink driving initiatives, promotion of safer drinking environments and the responsible marketing and provision of alcohol, as well as the usual whole of population strategies of price and taxation. This Strategy suggested that non-traditional partnerships could be formed with all stakeholders including the alcohol beverage industry, to improve the capacity of

individuals, families and the community to respond to alcohol-related harm. In addition, a primary aim of the *National Drug Strategy – A plan for action 2001 to 2003 > 2004* was also to achieve a balance between reducing the burden of alcohol-related harm and maximising the social and health benefits of low risk alcohol consumption.

The *National Alcohol Strategy 2006-2009-2011* was developed as a response to continued heavy alcohol consumption by certain Australians but there was no external review undertaken of the policy and progress of *National Alcohol Strategy – A plan for action 2001 to 2003 > 2004*, simply public and stakeholder consultations. The Australian Institute of Health and Welfare (AIHW) data highlighted that by 2004, 83% of Australians consumed at least one alcoholic beverage per week and 41% drank daily, and by 2005, 20% of Australians drank to intoxication at least once per month, including 30.5% and 25% of 20–29 year-old males and females, respectively (AIHW 2005). In contrast to the previous Strategy, this Strategy primarily focused on a reduction in heavy consumption, namely intoxication, and the ensuing physical and social harms. While there is no agreed definition for intoxication in Australia, it usually refers to a blood alcohol concentration (BAC) above 0.08%. A key finding from the community consultation was that intoxication was the community's greatest concern. Indeed, while not all occasions of intoxication result in significant physical and social harms, none of the health benefits of alcohol are also delivered. There were only four strategic areas, each with specific aims, for coordinated action to develop drinking cultures that supported a reduction in alcohol-related harms as follows: a reduction in the incidence of intoxication among consumers; enhanced public safety and amenity at times and in places where alcohol is consumed; improved health outcomes among all individuals and communities affected by heavy alcohol consumption; and the facilitation of safer and healthier drinking cultures allied to regulation of availability.

General comments on the Discussion Paper

If cultural change is again a key strategy of the National Alcohol Strategy to reduce alcohol-related harm, a starting point should be to identify what kind of drinking culture, that is, what attitudes about drinking and, more importantly, what drinking behaviours are desirable in Australia. This should flow from a thorough evaluation of *all* datasets and the peer-reviewed literature sets to determine what a normal drinking culture actually is and what 'safe' drinking behavior is. Simply put, what is a healthy relationship with alcohol? From a purely medical perspective, the Harvard Medical School suggests that while it is not possible to provide a definitive definition because of scientific uncertainties and individual differences in background risk for chronic diseases, a moderate amount may be healthy; this amount is one to two standard drinks per day (Harvard Medical School 2014). It is also clear from the peer-reviewed literature that drinking beyond this amount may no longer be considered as 'safe' (Gonçalves et al. 2015).

It is also implied throughout the Discussion Paper that alcohol consumption is a causative rather than a contributing factor to harm to the community or society. While it can be a causative factor for harm to an individual's health, the Ministerial Council on Drug Strategy (2011) suggested that excessive alcohol consumption should be considered as a behavioural risk factor contributing to social dysfunction. Indeed, estimation of the ill health and death associated with alcohol consumption is complex. While both can occur as a direct result of excessive alcohol consumption (for example, alcohol poisoning), in most cases alcohol consumption is only one of a number of contributing factors (AIHW 2014, WHO 2014).

Accordingly, it should be recognised in the Discussion Paper that the actual underlying individual or community problems triggering harmful alcohol consumption (both in amount and pattern) should be also be addressed as a national priority where possible.

2. Specific comments on the National Alcohol Strategy Development Discussion Paper 2015 (Sections 1.2 - 1.10)

1.2 Policy context section

While the Discussion Paper acknowledges that the majority of alcohol consumers actually drink alcohol responsibly, the overall tenor of the text is unbalanced and negative with selective use of datasets and statistics. It should also be acknowledged that in 2013, most people in Australia aged 12 and older drank at levels that did not place them at risk of harm over their lifetime—they either drank at low-risk levels (58%) or abstained (24%) (AIHW 2014).

Most importantly, the text also does not place current Australian alcohol consumption in context with that from previous years, which clearly shows that overall alcohol consumption has declined over the past two decades to reach 9.7 L of pure alcohol per person in 2013/14, which is the lowest level since 1962/63 (AIHW 2014). Consultation of the AIHW *National Drug Strategy Household Survey (NDSHS): Detailed Report 2013* reveals that “while almost 4 in 10 (37%) people aged 14 and over drink at least once a week, a substantial number have taken action to reduce their drinking. In 2013, 49% of recent drinkers (those who had consumed at least one full drink of alcohol in the last 12 months) had taken actions to reduce their consumption. The most common intake reduction actions were to reduce the amount of alcohol consumed at one time (30%) and/or to reduce the number of drinking occasions (29%). Lifetime risky drinkers were slightly more likely to have made changes to their drinking behaviour than low-risk drinkers.” (AIHW 2014).

Indeed, the AIHW *National Drug Strategy Household Survey (NDSHS): Detailed Report 2013* also reveals that “overall, Australia has seen a decrease in the proportion of daily drinkers, and this reduction was most noticeable among people in their late 30s to 50s”, that is, “a lower proportion of Australians aged 14 or older consumed alcohol in risky quantities in 2013 compared to 2010 where the proportion of lifetime risky drinkers and single occasion risky drinkers declined.” (AIHW 2014). In particular, between 2010 and 2013 for those aged 14 years and over:

- there was a decrease in the proportion of people exceeding the NHMRC guidelines for lifetime risk by consuming more than two standard drinks per day on average, from 20% to 18.2%;
- the number of people in Australia drinking at levels that placed them at lifetime risk of an alcohol-related disease or injury in 2013 fell by approximately 5.5% or 250,000 (3.7 million in 2010 down to 3.5 million in 2013);
- fewer people consumed five or more standard drinks on a single drinking occasion at least once a month, declining from 5.2 million in 2010 to 5.0 million in 2013. The proportion exceeding these guidelines declined from 29% in 2010 to 26% in 2013; and

- a higher proportion abstained from drinking alcohol, with this proportion rising from 19.9% in 2010 to 22% in 2013.

Accordingly, the statement “there is evidence to suggest that while per capita consumption remains stable, risky drinking and alcohol harm is increasing in Australia” is incorrect.

Furthermore, the conclusion that ‘drinking to hazardous levels is a cultural norm in Australia’ is inaccurate and emotive. It cannot be accurately drawn from the simple statistic cited in the text that ‘30% of men and 10% of women in Australia drink at a level that puts them at lifetime risk of alcohol harm’. The actual statistic from the AIHW *National Drug Strategy Household Survey (NDSHS): Detailed Report 2013* is also “males were twice as likely as females to drink at risky levels (26% and 9.7%, respectively)” (AIHW 2014).

In addition, the conclusion that “among young Australians, risky drinking is almost ubiquitous with 75% of men and 60% of women aged 18-24 have done so in the last year” cannot be correctly drawn from this simple statistic. The actual statistic from the AIHW *National Drug Strategy Household Survey (NDSHS): Detailed Report 2013* Online Table 4.6 reveals that of those aged 18-24 years, only 2.1% of males drank at risk of injury on a single occasion almost every day, 25% weekly but not daily, 25% monthly but not weekly and 13% yearly but not monthly, and for females, 1.6% drank at risk of injury on a single occasion almost every day, 14% weekly but not daily, 24% monthly but not weekly and 16% yearly but not monthly.

Regarding the annual cost of alcohol in Australia, it is not disputed that the harmful use and misuse of alcohol costs society, both directly and indirectly. Accurate figures and contexts should be provided. The Laslett et al. (2010) reference that cites a figure of \$36 billion is not from a peer-reviewed publication, rather an in-house report for the Foundation for Alcohol Rehabilitation and Education (FARE). A figure of \$14.352 billion for the direct societal costs of alcohol was cited, however, by Manning et al. (2013) in an Australian Institute of Criminology publication. Other estimates of the annual social (non-private) costs for Australia actually range from \$3.8 billion (Crampton et al. 2011) to the \$36 billion which includes the estimates of Collins and Lapsley (2008) for both individual and social costs. Given that these figures differ by a magnitude of 10, Marsden Jacob Associates (2012) in an analysis commissioned by the Australian Preventative Health Agency in 2013 to examine the basis on which differing cost figures were determined stated:

“The analysis concluded that caution should be exercised when using figures at either extreme of the range provided...Caution should be exercised in using the work of Crampton et al. (2011) on which the industry submissions largely rely. The assumptions in this cost analysis do not accord with widely held Australian norms. For example, this work excludes costs that would derive to the society from a child born with foetal alcohol syndrome on the basis that this is a “private cost”; other inappropriate assumptions have meant that this analysis yields costs (\$3.8 billion) well below those derived from an analysis based on assumptions and value judgements reflecting community preferences including as expressed in legislation. Caution should also be exercised in relation to figures submitted by a number of the public interest groups. Figures, such as costs of \$36 billion, are obtained by adding together separate analyses

reflecting different purposes and different concepts and methodologies and some double counting. These figures inflate the assessment of likely costs.”

1.3 Overarching goal section

Question 1 - Is this an appropriate goal for the NAS? If not, what should be the main goal?

It is stated that the goal of the National Alcohol Strategy is to act as an evidence-based framework, which would allow for national, state and local responses to issues. The overarching goal of seeking to “improve the health of all Australians by reducing the prevalence of risky alcohol consumption” is clear, as is the goal “improving treatment outcomes for people with alcohol dependence”. Clarification is required, however, concerning the separate goals of “preventing or delaying the uptake of alcohol”, and ‘to minimise health, social and economic costs, and the inequalities it concerns’.

Indeed, caveats should be considered regarding the text “inequalities”. Specifically, concerns about inequalities in health care access, service provision and health outcomes are more relevant for global indigenous populations rather than non-indigenous populations. For example, there is ample available evidence of inequalities in health status and health care between Aboriginal and Torres Strait Islander Australians and non-indigenous Australians. These inequalities are particularly apparent in chronic and communicable diseases, infant health, mental health and life expectancy (AIHW 2013; AIHW 2015; ATSIJC 2005; SCRGSP 2013). Many factors contribute to these inequalities, with perhaps the largest contributors being those related to social factors that lie outside the health care system (Osborne et al. 2013). There is also evidence that inequitable access to quality healthcare based on ethnicity has contributed to health disparities (Betancourt et al. 2003; SCRGSP 2013). Furthermore, key findings from the 2015 OECD report entitled *Tackling harmful alcohol use*¹, which included alcohol health policy recommendations suggest that people with more education and higher socioeconomic status (SES) are more likely to drink alcohol, with less educated and lower SES men, as well as more educated and higher SES women, more likely to indulge in risky drinking and experience alcohol-related harms.

It could be presumed from the text that ‘preventing or delaying the uptake of alcohol’ is more than merely preventing or delaying the uptake of alcohol past adolescence, that is past age of 19 years, when the brain is considered to be developed (Nixon et al. 2010, Carson 2015). It was previously believed that the human brain was structurally mature in early childhood, but developments in neuro-imaging have shown that the brain continues to develop during adolescence, both structurally and functionally until approximately 19 or 20 years of age. Indeed, the World Health Organization defines adolescence as ages 10-19 years which represents the developmental transition to adulthood during which the brain is in a unique and dynamic state (WHO 2008). While there is peer-reviewed literature that supports preventing or delaying the uptake of alcohol to reduce the likelihood that an alcohol use disorder will develop later in life, there is no literature to suggest that delaying past this age also reduces this likelihood.

¹ http://www.keepeek.com/Digital-Asset-Management/oecd/social-issues-migration-health/tackling-harmful-alcohol-use/summary/english_acc5aeb2-en#page2

For example, increased novelty seeking and risk-taking behavior is observed as adolescents experiment with adult aspects of life, including the initiation of alcohol consumption. Adolescents respond to the effects of alcohol differently from adults (Spear and Varlinskaya 2005). Adolescents are less sensitive to negative effects of alcohol, including cues that influence self-regulation of intake, but are more sensitive to positive effects, which may serve to reinforce or promote excessive consumption (Spear and Varlinskaya 2005). The different response of adolescents is related to age-related differences in ethanol absorption and metabolism (Walker and Ehlers 2009). Specifically, it takes a larger amount of alcohol for an adolescent to achieve similar blood alcohol concentrations to an adult (Spear 2007). At similar blood alcohol concentrations, however, adolescents demonstrate enhanced sensitivities or vulnerabilities to the effects of alcohol (Crews et al. 2000, Morris et al. 2010). For example, while adolescents appear less sensitive to effects that limit consumption, they exhibit increased sensitivity to the amnestic effects (blackouts) of alcohol intoxication (White and Swartzwelder 2004) and are more vulnerable to alcohol-induced neurodegeneration (Spear 2007, Nixon et al. 2010). First, the adolescent brain is still developing, such that alcohol may have teratogenic effects that appear as degeneration in regions such as the prefrontal cortex, mesolimbic system and hippocampus (Spear 2007, Clark et al. 2008, Nixon et al. 2010). Second, alcohol is neurotoxic in many of these regions, and these regions are more sensitive to alcohol neurotoxicity in adolescents than in adults (Crews et al. 2000, Evrard et al. 2006, Spear 2007). Studies are inconsistent, however, to the amount of alcohol that compromises cognitive function and causes neurodegeneration in adolescents (Hoffmann and Nixon 2015). Confounding factors include age, gender, genetics, drinking pattern and blood alcohol concentration.

In addition, for consistency with the October 2015 draft *National Drug Strategy 2016-2025*, the phrase “minimise alcohol-related harm” could be used, which was also used in the *National Alcohol Strategy 2006-2011*, and later in the Discussion Paper on page 13 on Guiding Principles. For example, the aim of the October 2015 draft *National Drug Strategy 2016-2025* is as follows:

*“To contribute to ensuring safe, healthy and resilient Australian communities through **minimising alcohol, tobacco and other drug-related health, social and economic harms** among individuals, families and communities.”*

Question 2 - Is a five year timeframe adequate, or should a longer period be considered such as ten years?

The five year timeframe is adequate to provide trends in measured data as well as to ensure that the evidence base is current and remains relevant to the Strategy.

1.4 Guiding principles section

Given that the National Drug Strategy is a framework, it is assumed these principles will also be used where applicable to guide the Intergovernmental Committee on Drugs (IGCD) and the Federal Department of Health in their implementation of the NAS.

Question 1 - Are these principles appropriate?

i Be action orientated – yes.

ii Be aligned and not duplicate – yes. While existing frameworks and networks within the alcohol sector should be used *and strengthened* wherever possible, they should also be evaluated and found to be effective prior to use.

iii Be evidence based – yes. This guiding principle is key to best practice, as is appropriate monitoring and surveillance processes which were minimal in the *National Drug Strategy 2006-2011*. From Brownson et al. 2009, the key concepts of evidence based principles and practice also include evaluation and feedback to stakeholders following monitoring and surveillance. Indeed Brownson et al. (2009) suggested that:

In summarising these various attributes of evidence based public health, key characteristics include:

- *Making decisions using the best available peer-reviewed evidence (both quantitative and qualitative research);*
- *Using data and information systems systematically;*
- *Applying program-planning frameworks (that often have a foundation in behavioural science theory);*
- *Engaging the community in assessment and decision making;*
- *Conducting sound evaluation; and*
- *Disseminating what is learned to key stakeholders and decision makers.*

iv Be coordinated – yes. There should be consistency nationally with, and between, the States and Territories. There should, however, be scope for innovative solutions as well as specific solutions for local issues. This may include implementing independent initiatives such as pilot and preliminary studies to generate evidence to support empirical studies.

v Promote clear information – yes. Direct engagement with the whole of community, including adolescents, young adults and other vulnerable population groups, is critical to achieving the aim of alcohol-related harm minimisation.

Question 2 - Are there other principles that should underpin this NAS?

Other principles that should underpin the *National Drug Strategy 2016-2021* are that the Strategy 'be annually audited and evaluated'. An annual audit and evaluation would ensure that the evidence base remains current and the strategies appropriate to minimise harm from alcohol.

1.5 Building on existing efforts and progress section

There is minimal empirical evidence provided in the text on existing efforts and progress, despite the statement included that “substantial progress has been made under the most recent strategy in 2006-11”.

Question 1 - What are the key successes to build on in the new NAS?

The text states that the National Drug Strategy will “recognise the importance of previous national drug strategies” and “include strong links with the former NAS and other jurisdictional strategies”. Such linkage may actually be inappropriate without an independent evaluation of their effectiveness. It is not apparent that extensive examination and evaluation of strategies has been undertaken since 2001 (an example of which is the public document *Alcohol in Australia: Issues and Strategies. A background paper to the National Alcohol Strategy: A Plan for Action 2001 to 2003/04*, Commonwealth of Australia 2001²), nor have key datasets and indicators been identified for such an evaluation. The *National Alcohol Strategy 2006-2009-2011* was also not informed by an independent evaluation of the *National Alcohol Strategy: A plan for action 2001 to 2003 > 2004*.

In addition, the text states that “the NAS will...be informed by the IGCD Statement of Priorities on Alcohol for 2014-2016”. This document is an internal work plan, however, and is not available to inform all stakeholders of the National Alcohol Strategy.

Question 2 - What are the key challenges going forward in reducing harms from alcohol in the future?

A key challenge is inconsistencies between Federal, State and Territories laws, relating, for example, to manufacturing, distribution, licensing and retailing activities. Another key challenge is adequate and guaranteed funding of strategies for their full lifetime. In addition, strategies should include short and longer term approaches to harm minimisation from alcohol, and be less reactive to community concerns.

There should also be provision for the addition of evidence based interventions on emerging issues throughout the lifetime of the NAS, to enable the NAS to be proactive rather than predominantly reactive. One example is the importation of powdered alcohol products, which emerged in mid 2015. The Victorian government, for example, banned the sale of powdered alcohol product with effect from 1 July 2015, where the Federal government considered that the issue was one for each State to regulate on, rather than enforce a national prohibition.

² The National Alcohol Strategy and its companion document ‘Alcohol in Australia: Issues and Strategies’ were endorsed by the Ministerial Council on Drug Strategy in July 2001. The documents were prepared for the Intergovernmental Committee on Drugs by members of the National Expert Advisory Committee on Alcohol (NEACA) with assistance from the NEACA project officer and secretariat. The Australian National Council on Drugs and a broad range of key stakeholders also contributed to the drafting of the documents.

Question 3 - Are there new stakeholders or industries that should be involved?

There should be engagement with consumers, the community and other stakeholders at all levels, which could further facilitate adoption of, or participation in specific strategies by stakeholders including the alcohol industry.

1.6 Evidence based strategies section***Question 1 - What areas of focus need to be addressed in evidence-based policy?******Question 2 - Are these appropriate in the development of the NAS?***

It is acknowledged that evidence-based approaches in the public health context require an understanding of the complexities of organisational structures, interactions and other dynamics that shape and influence decision-making at the local, state, regional, and national levels within which public health operates and within which policies and programs are established. The best available evidence, however, can contribute to the provision of better-balanced information and better-informed choices or decisions by policymakers. A key issue in evidence-based strategies, however, is a definition of what constitutes evidence. One of the key concepts in this definition is critical appraisal. Evidence can be defined as that “which furnishes proof,” and critical appraisal can be defined as an evaluation process “which determines the significance or worth of something by careful appraisal and study” (Spring 2007, Spring et al. 2008, Brownson et al. 2009). Such critical appraisal, preferably as independent peer review, would provide increased confidence in the current and emerging evidence base and effectiveness of the specific strategies chosen.

To improve stakeholder confidence in the reliability of the evidence for supporting strategies, following questions regarding Australian alcohol data sets are relevant:

- Were those who participated in producing or evaluating the scientific information well qualified?
- Was the process for considering the evidence transparent and free of conflicts of interest?
- What kind of evidence was considered?
- Was it from scientific studies or from anecdote or expert opinion?
- Was the information confirmed in more than one study?
- Do the studies represent all of the available studies on the topic?
- Were they of good quality?
- How were the results summarized?
- How do the conclusions relate to the information presented?

In addition, the range of experts engaged in providing evidence for policy could be broadened from the relatively small group of established Australian alcohol researchers to researchers from other academic disciplines to provide fresh approaches and strategies.

Furthermore, there appear to be no new strategies listed in the Discussion Paper compared to the two previous iterations of the Strategy, despite some 15 years of further research. There is also

no evidence provided in the Discussion Paper that those strategies listed, such as ensuing appropriate controls on alcohol advertising and promotion, controlling access and availability of alcohol, are actually effective. This appears to be assumed rather than based on critically appraised evidence given that they were also included in the previous two iterations of the Strategy, and the Draft National Drug Strategy of October 2015. In addition, evidence from international populations may require tailoring to the Australian population given cultural differences between countries.

It is also questioned whether community attitudes are a valid evidence base for strategies. Community priorities, however, may influence the potential adoption of these strategies.

In addition, provision needs to be made in the NAS for the examination, evaluation and potential adoption of emerging evidence to ensure strategies remain effective.

1.7 Working in partnership section

Question 1 - What are the key partnerships need to underpin implementation of the NAS?

All alcohol consumers, the community and stakeholders should be considered as key partners in the implementation of the NAS.

Question 2 - Are there particular partnerships that need to be established or strengthened?

The alcohol industry is not specifically cited in the text as a partner in the NAS, although it has been included in the stakeholder consultations to inform the development of the Strategy. Inclusion of the alcohol industry as a listed stakeholder provides an opportunity for the alcohol industry to provide retail and wholesale data, for example, and other resources to aid the implementation and eventual evaluation of the NAS, and to empower the alcohol industry to undertake specific strategies.

It is also questioned, however, whether longstanding relationships require strengthening after review as stated in the text. Rather, review may suggest that these longstanding relationships should be weakened.

1.8 Priority population groups section

Given that the title of section 1.8 is “priority population groups”, it could be considered inappropriate to begin a discussion of this topic with an unreferenced statement such as “whole of population strategies can be very effective at reducing total harm and social impact”.

The full quote from page 9 of the introduction to the *National Drug Strategy 2010-2015* is actually “Whole-of-population strategies *may* be more appropriate for alcohol and tobacco and for those

illegal drugs that are widely used, while approaches targeted to users and at-risk groups may be more appropriate for those drugs only used by a small percentage of the population.”

A citable example of an effective whole of population strategy in Australia that has minimised the alcohol-related harm of motor vehicle road accidents is legislation and enforcement on drink driving and associated random breath testing (Faulks et al. 2010). Indigenous Australians, however, still experience fatal road crashes at rates 2.8 times higher than the non-indigenous Australian population and rates of serious injuries 1.3 times higher (Henley and Harrison 2013). Furthermore, the majority (70%) of more than 90 fatal road injuries and 60% of approximately 1,600 serious road injuries per year are suffered by indigenous Australians resident in ‘outer regional’, ‘remote’ and ‘very remote’ localities (Henley and Harrison 2013). Accordingly, a different approach to indigenous Australian drink driving may be needed to incorporate cultural factors in outer regional and remote Australia (Fitts and Clough 2014).

It may be more appropriate, therefore, to simply state that specific strategies may be more effective at reducing total harm and social impact in vulnerable population groups that do not respond well to whole of population strategies.

Question 1 - Are the identified priority populations appropriate?

There is sound scientific evidence to support the inclusion of children and young people (Masten et al. 2008, Newton et al. 2013, Harris et al. 2014), as well as Aboriginal and Torres Strait Islanders as priority population groups for specific strategies (d’Abbs 2015). These were also considered separately in the previous iterations of the National Alcohol Strategy.

Clarification, a definition and peer-reviewed references are required regarding the priority populations of older people, children in care and people living in rural and remote communities.

Question 2 - Are there any other populations groups that should be prioritised? What evidence supports this?

Heavy alcohol consumers and individuals who are alcohol dependent are not cited in the text as a priority population group, although they respond differently from light to moderate alcohol consumers to whole of population strategies, such as alcohol advertising and pricing (Manning et al. 1995, Wagenaar et al. 2009, Ayyagari et al. 2013). The World Health Organization (WHO) recommends, therefore, that health professionals provide specific strategies such as alcohol screening, brief interventions, counselling and, when necessary, pharmacotherapy for heavy drinkers (WHO 2014).

1.9 Priority areas and actions section

An introductory statement in the NAS as to its vision for Australia’s drinking culture would provide clarity and context to the priority areas and actions as well as to what stakeholders are working towards in adopting these actions. For example, an explanation of the particular attributes of a positive drinking culture and the measures of success that are being sought in the NAS is required

in the text. In addition, balance is required in the overall tone of the text, with reference to role modelling of positive behaviours rather than only negative behaviours.

Question 1 - Are these priority areas appropriate?

Question 2 - What evidence based actions could be undertaken in priority areas.

Priority 1 Change the current drinking culture in Australia to reduce harmful drinking

This priority area is appropriate. A definition of the current drinking culture is required, however, for clarity as well as a definition of the desired future drinking culture. To be consistent with the NAS stated purpose of alcohol-related harm minimisation, it is suggested that the title of the priority be changed from “*Change the current drinking culture in Australia to reduce harmful drinking*” to “*Change harmful drinking cultures in Australia.*”

In addition, examples of actions provided are not necessarily evidence-based, such as health warning labels on packaging (Stockley 2001, Stockwell 2006, Wilkinson and Room 2009, Scholes-Balog et al. 2012).

A commitment to community education concerning standard drink labelling could, however, be included as an action. Standard drinks labelling has been an undervalued educational tool and a lost or wasted opportunity for the Federal government. The premise of standard drinks strategy is to enable consumers to self-monitor their consumption simply by counting the number of standard drinks that they consume on any one occasion. The units of a standard drink, 10 g alcohol, correspond with the initial 1987 and 1992 descriptions of the NHMRC for light to moderate, hazardous and harmful amounts of alcohol. While labels on alcoholic beverages are an opportunity to provide consumers with information regarding safe levels of consumption, recent surveys of approximately 80 consumers undertaken by the School of Marketing of The University of South Australia (personal communication, Gual et al. 1999), suggested that, depending on the age group of the consumer, between 40 and 86% of consumers are aware of the labelling, although only a smaller percentage was correctly able to interpret the labelling. The introduction of this labelling in December 1995 was, however, to be accompanied by an extensive education campaign for consumers, which did not eventuate, which limited the success of the labelling; this was acknowledged in the *Evaluation of the National Drug Strategy 1993–1997*. Indeed, there has been minimal formal education of the community although State and Territory drug and alcohol services have promoted, and continue to promote, standard drinks to their clients in the community. Thus, while the concept of including the number of standard drinks in the container on the label of each alcohol container is supported, an education campaign is also supported to increase the ability of consumers to interpret the labelling. The Australian Medical Association has continuously commented that a standard drinks media campaign should be re-launched in the community and supporting strategies should be sanctioned in clubs, hotels and restaurants, to support the standard drinks media campaign. Interestingly, this strategy has been adopted by countries including New Zealand and the United Kingdom.

Priority 2 Prevent and reduce alcohol-related injury and violence

This priority area is appropriate. It could be implied, however, from the text that any alcohol consumption causes assaults, child abuse, family and domestic violence, self-directed violence and road trauma. Heavy alcohol consumption is generally a contributing or secondary factor

rather than a primary factor, and the text should be reworded to also consider other contributing factors in order to reduce alcohol-related injury and violence such as mental health and socio-economic issues (Kertesz et al. 2005, Laslett et al. 2012, Martiniuk et al. 2015, Newbury-Birch et al. 2015). For example, in night time assaults, factors contributing to alcohol-related harm include a permissive environment, poor cleanliness, crowding, loud music, a focus on dancing, poor staff practices as well as cheap alcohol availability (Hughes et al. 2011, Moore et al. 2011).

Regarding road trauma, a separate priority could be to *Prevent and reduce alcohol-related road trauma*, given that preventing and reducing road trauma requires specific and targeted legislation and enforcement strategies (Lahaussé and Fildes 2009, Hall et al. 2010, Siskind et al. 2011, Ferris et al. 2013).

Priority 3 Prevent and reduce alcohol use during pregnancy

This priority area is appropriate. Specific and targeted strategies are required to reduce alcohol consumption during pregnancy and the potential for alcohol-related harm to the developing foetus. In Australia, prenatal alcohol use is common, reported in up to 47–60% of pregnancies (Colvin et al. 2007, AIHW 2014). Although it has been suggested that indigenous Australian women are less likely to drink during pregnancy, for example, only 20% reported doing so in a large national survey (ABS 2006, Fitzpatrick et al 2015) those who do drink are more likely to do so at hazardous levels (Colvin et al. 2007). Indeed, Cameron et al. (2013) concluded that although their study of 2731 pregnant women enrolled in the *Griffith Study of Population Health: Environments for Healthy Living* birth cohort study (2007-2011) suggested that national alcohol and pregnancy policies and public health programs may have had some effect in reducing alcohol consumption by pregnant women, they may not have affected the behaviour of specific at-risk groups and that “more localised strategies for high-risk subpopulations” were required.

Priority 4 Protect young people from alcohol related harm

This priority area is appropriate. The statement that “to address the growing levels of alcohol related harm experience by these vulnerable populations” appears inconsistent, however, with data from the AIHW *National Drug Strategy Household Survey (NDSHS): Detailed Report 2013* which showed that “a lower proportion of Australians aged 14 or older consumed alcohol in risky quantities in 2013 compared to 2010 where the proportion of lifetime risky drinkers and single occasion risky drinkers declined”, and that “in 2013, the proportion of young people abstaining from alcohol rose”. Indeed “younger people are continuing to delay starting drinking with the average age among those aged 14–24 trying alcohol for the first time increasing from 14.4 in 1998 to 15.7 in 2013” (AIHW 2014).

Clarification should be made however, as to whether young people refers to those aged below 18 years of age or aged 18-24 years, as adults aged 18-24 years, were more likely to drink at harmful levels on a single occasion than the rest of the adult population (AIHW 2014).

Concerning those aged below 18 years of age and attending school, while parental attitudes and behaviours influence children, secondary school based education programs are also appropriate. For example, a 2014 meta-analysis of 28 randomised controlled studies with 39,289 participants showed that overall, the effects of school-based preventive alcohol interventions on adolescent

alcohol use were small but positive among studies reporting the continuous measures, whereas no effect was found among studies reporting the categorical outcomes (Strøm et al. 2014). Continuous outcomes refer to frequency of alcohol use and quantity of alcohol use and categorical data refers to the proportion of students who drank alcohol.

The School Health and Alcohol Harm Reduction Project (SHAHRP), for example, aimed to reduce alcohol-related harm by enhancing students' abilities to identify and deal with high-risk drinking situations and issues (McBride et al. 2003, 2004, 2007). The SHAHRP study involved a quasi-experimental research design, incorporating intervention and control groups and measuring change over a 32-month period. It was undertaken in 14 metropolitan, government secondary schools (13 to 17-year-olds) in Perth, Western Australia, which represented approximately 23% of government secondary schools in the Perth metropolitan area with stratification by socio-economic area. Over 2,300 intervention and control students from junior secondary schools were involved where the retention rate of the study was 75.9% over 32 months. The intervention was a classroom-based program, with an explicit harm minimisation goal, and was conducted in two phases over a two-year period. It incorporated evidence-based approaches to enhance potential for behaviour change in the target population. The results were analysed by baseline context of alcohol use to assess the impact of the program on students with varying experience with alcohol. The results showed that knowledge and attitudes were modified simultaneously after the first phase of the intervention in all students. The program had little behavioural impact on baseline supervised drinkers; however, baseline non-drinkers and unsupervised drinkers were less likely to consume alcohol in a risky manner, compared to their corresponding control groups. In line with program goals, early unsupervised drinkers from the intervention group were also significantly less likely to experience harm associated with their own use of alcohol compared to the corresponding control group. Unsupervised drinkers experienced 18.4% less alcohol-related harm after participating in both phases of the program and this difference was maintained (19.4% difference) 17 months after the completion of the program.

The SHAHRP study indicates that a school drug education program needs to be offered in several phases, that program components may need to be included to cater for the differing baseline context of use groups, and that early unsupervised drinkers experience less alcohol-related harm after participating in a harm reduction program (McBride et al. 2003). Australia's SHAHRP has now been adopted by several countries (and their governments) including the UK. For example, McKay et al. (2014) have undertaken a secondary analysis of data from a non-randomised trial of SHAHRP, a classroom-based alcohol education intervention, involving UK school children (aged 13-16 years old). Results showed that there were significant positive changes in knowledge about and attitudes towards alcohol in baseline abstainers, supervised drinkers and unsupervised drinkers. Significant positive behavioural effects in terms of amounts consumed, frequency of drinking and self-reported alcohol-related harms, were observed almost exclusively among baseline unsupervised drinkers. These behavioural effects support those previously observed in Australia and suggest that the intervention is a viable health promotion tool in the UK.

Midford (2007) also published the following commentary concerning school drug education in Australia which has remained relevant:

“School drug education is seen by governments as an ideal prevention strategy because it offers the potential to stop use by the next generation. Australian schools expanded drug education substantially during the 1960s in response to rising use by young people, and in 1970 the first national drug education programme was launched. In the mid-1990s the level and quality of drug education increased noticeably. Unfortunately, subsequent national initiatives have failed to capitalise on the gains made during this period. Some good quality, independent research, such as the Gatehouse Project and the School Health and Alcohol Harm Reduction Project (SHAHRP), has been conducted in Australia. However, national-level momentum is being lost, because there is little commitment to the development of evidence-based mass programmes. In this climate drug education has become vulnerable to short-term decision-making that emphasises palatable, policy-driven outcomes and focuses on strategies designed to bolster the legitimacy of these goals. So is Australia 'fair dinkum' about drug education in schools? There is a history of innovation, and past programmes have left behind pockets of expertise, but the challenge is to invest continuously in methods with evidence of success, rather than settle for cyclical programmes driven by the political and moral palliatives of the day. To do less is to fail the young people of Australia.”

Clarification, definition and peer-reviewed references are required, however, regarding the statement “closing the loophole that exposes children to alcohol advertising during live broadcasts”.

Priority 5 Improve outcomes for Aboriginal and Torres Strait Islander people and their communities

This priority area is appropriate. While indigenous Australians constitute only a small proportion (2.4%) of the overall population, numbering 400 000 people who identify as Aborigines or Torres Strait Islanders (Brady 2007), their communities have higher rates of abstinence and intoxication than in non-indigenous communities (Hunter 1993, Perkins et al. 1994, AIHW 2011, ABS 2013), with approximately 50% abstinent and 50% heavy drinkers. For example, indigenous Australian men and women consumed alcohol on an average of 2.75 and 1.40 days per week, respectively. Indigenous Australian men and women consumed an average of 44 and 15 standard drinks, respectively, on the days that consumption occurred (Kelly et al. 2006). The latest *Australian Aboriginal and Torres Strait Islander health survey: first results, Australia, 2012-13* data suggests that while the level of single occasion drinking risk was similar for Indigenous and non-indigenous Australians (52% compared with 45%), indigenous Australians were 1.4 times more likely to drink at levels of 'high risk' of short-term harm as non-indigenous Australians (37% compared with 27%). Similarly, while the level of lifetime drinking risk was similar for Indigenous and non-indigenous Australians, indigenous Australians were 1.4 times more likely to drink at levels of 'high risk' of lifetime harm than non-indigenous people. Furthermore, for the five year period 2006-2010 in New South Wales, Queensland, Western Australia, South Australia and the Northern Territory, approximately 3.4% of total indigenous deaths were related to alcohol consumption, with the majority of these due to alcoholic liver disease (AIHW 2013). Consistent with or consequent of this heavy drinking, indigenous Australians have higher rates of economic, health and social problems than non-indigenous Australians.

The Northern Territory government (for whom 28% of the population comprises indigenous Australians) initiated and implemented the Northern Territory Living With Alcohol Programme (LWAP) in 1992 which continued until 2000. It was culturally relevant for Indigenous Australian communities and comprised both general and community-based initiatives. The aim of the LWAP was to reduce the level of alcohol consumption and related harm in the Northern Territory and its remote communities down to national levels by 2002 by using strategies such as increased controls on alcohol availability and expanded education, drink driver programs, night-patrol programs, rehabilitation and treatment facilities, programs and services (Stockwell et al. 2001, d'Abbs 2004). It was funded from 1992-1997 by a Northern Territory specific alcoholic beverage levy on the sale of products containing more than 3% alcohol by volume.

Examples of community-based initiatives are in Tennant Creek, Curtin Springs and Elliott in the Northern Territory, and Derby and Halls Creek in Western Australia. The initiatives used measures to reduce the supply of, as well as demand for, alcohol, and indigenous Australian individuals were involved in the design and delivery. The emphasis in local restrictions was on alcohol availability and, specifically, take-away sales of alcohol and in particular, sales of cask wine. In Elliott beginning in 1991, for example, there was a ban on admission of children to public bars, a maximum purchase limit for take-away alcohol sales and cessation of Sunday sales. In Halls Creek beginning in 1992, no take-away alcohol sales were permitted before 12 pm, cask wine sales were only permitted between 4 and 6 pm and there was a limit of one cask per person per day.

In Tennant Creek beginning in 1995, front bar sales were only permitted between 9 am and 10 pm, where there were no sales were permitted on Thursdays. Thursday is the traditional pay and pension day. Wine was also only sold with meals in the front bar where only light beer was sold prior to 12 pm. Furthermore, there were no take-away sales of alcohol on Thursday and only between 12 and 9 pm on other days. Take-away alcohol sales were limited to 2 L wine casks such that wine could not be purchased in greater than 1 L glass containers. In addition, take-away alcohol sales were not permitted to taxi drivers for third party sales.

In Derby beginning in 1997, no take-away alcohol sales were permitted on Thursdays and only between 12 and 10 pm on other days, take-away sales of 4 L wine casks were also prohibited. In Curtin Springs beginning in 1997, no alcohol was permitted to be sold in front bars or as take-away to any indigenous Australian resident in, or travelling to Ngaanyatjarra Pitjantjatjara Yankunytjajara (NPY) lands.

Subsequent assessments of these restrictions on alcohol availability, which had wide spread community support, showed that they had a modest but real impact on alcohol consumption and a significant impact on indicators of alcohol-related harm, especially criminal charges and violence (d'Abbs and Togni 2000). Alcohol-related road accidents were also significantly decreased in Curtin Springs (d'Abbs and Togni 2000). The most significant impacts were for the Tennant Creek community which called their initiative 'Beat the grog'. For example, hospital-based indicators showed that admissions to the Accident and Emergency department decreased by 34% compared with the same months in the preceding year, which included decreases in fractures, head injuries, general injuries, gastrointestinal conditions, lacerations and stab injuries (Gray et al. 2000). These decreases were sustained over the life of the initiative (d'Abbs and Togni 2000), such that the

combined impact of the LWAP levy and programs and services funded by the levy reduced alcohol-related harm both in the short- and long-term in the NT (Stockwell et al. 2001, Chikritzhs et al. 2005).

Another community-based initiative was the establishment of sobering up centres across Australia. They are non-custodial safe overnight accommodation for publicly intoxicated individuals (who have committed no offense) as an alternative to the arresting and holding of individuals in police cells and watch houses. They have been instrumental in the decriminalisation of public intoxication which, for example, was decriminalized in the Northern Territory in 1975 and in state of New South Wales in 1979 where it also legislated for alternative care for intoxicated individuals. In the Northern Territory alternative care was not legislated for another seven years such that significant numbers of indigenous Australians were subsequently apprehended and held in police custody cells without being charged. For example, in Tennant Creek in 1983, 94% of protective custody apprehensions were for indigenous Australians (Brady 1988). The first sobering up centre was opened in Darwin in the Northern Territory in 1983. The Tennant Creek sobering up centre was opened in 1984 by the Barkly Region Alcohol and Drug Abuse Advisory Group Inc (BRADAAG). The importance of the concept of a sobering up centre for indigenous Australians was highlighted by the Northern Territory coroner in 2003 while investigating the death of an indigenous Australian while in protective custody (Cavanagh 2003). The Royal Commission into Aboriginal Deaths in Custody facilitated the establishment of more centres across Australia. In the state of South Australia from 1991 to 2000, there were 6,486 admissions to centres, 97.1% of which were intoxicated indigenous Australians (Brady et al. 2006). In a sample of 6,486 admissions to centres in South Australia, the mean blood alcohol concentration (BAC) was 0.217% but ranged from 0.00-0.55%, significantly higher than non-indigenous intoxicated Australians, who had an average BAC of 0.159%. They were primarily residents of Ceduna and visitors from the broader region. High usage by indigenous Australians is related to the extent of their public drinking, a lack of appropriate accommodation, the role of the town as a service hub for indigenous Australians in the broader region and the activities of the mobile assistance patrol (MAP) (Byrne et al. 2001, Brady et al. 2003). Large numbers of indigenous Australians travel through the region in association with periodic ceremonial activity and as part of the normal high mobility of desert people (Peterson 2004, Taylor and Bell 2004).

These centres care not only for intoxicated indigenous and non-indigenous Australians in public places, but reduce social disruption and harm and violence by and against intoxicated individuals, and reduce the costs of health and law enforcement agencies. They are not alcohol treatment facilities but can identify and refer individuals to appropriate treatment facilities. No accident or complaint has occurred at a centre to date.

Indeed, for the specific groups of consumers who drink to intoxication, that is the 'at risk' group, the data suggest that direct and targeted interventions are the most effective measures to reduce alcohol consumption and the concomitant problems arising in those groups. Interestingly, the reintroduction of these direct targeted interventions is currently being considered by the Northern Territory Government and in particular the communities of Tennant Creek in the NT and Halls Creek in Western Australia. In the latter community, a local liquor accord, agreed to by hotel licensees, has been instigated which places specific and special resale restrictions on alcohol each

Wednesday; Wednesday is the day that many individuals within the local community receive their government welfare payments. A ban on all take-away alcohol is under discussion. A similar ban on take-away full-strength alcoholic beverages has also been reintroduced in the neighbouring community of Fitzroy Crossing where there has been a small but significant reduction in alcohol-related violence, suicide and injury as well as increased school attendance since the ban.

Priority 6 Provide an effective framework for advertising, promotion and sponsorship

This priority area is appropriate. The current text implies, however, that the current framework for advertising, promotion and sponsorship is not effective. Substitution of the words “Provide an effective framework” with “Enhance the framework” could be more appropriate given that the NAS intends to “build on existing progress, infrastructure and frameworks in place at local, states and national levels” (1.1 Purpose) rather than create new frameworks.

Clarification is also sought regarding the text “existing legislation” and whether the text refers to national, State and Territory or local legislation. Clarification is also sought regarding the text “proportional responses to alcohol-related problems”, and the relationship between the “development of risk-based regulatory frameworks and legislation” to “improve and develop evidence based proportional responses to alcohol-related problems”.

The independent and peer-reviewed evidence base for inclusion of the strategies “ensuing appropriate controls on price, advertising, promotion and sponsorship” should also be provided. These unreferenced and potentially unsupported strategies appear repeatedly throughout the NAS.

Priority 7 Enhance effective enforcement and controls on availability

This priority area is appropriate. A definition of, as well as the independent and peer-reviewed evidence base for inclusion of the strategies “effective pricing and taxation mechanisms” should, however, be provided. These unreferenced and potentially unsupported strategies also appear repeatedly throughout the NAS. In addition, cultural and local issues should also be considered concerning enforcement and controls on availability.

Priority 8 Improve treatment capacity, particularly with primary, acute and other health care settings

This priority area is appropriate. Although there is sound scientific evidence in primary health care for the effectiveness of alcohol screening and brief interventions in adults, they are under utilised nationally and internationally (Wilkes et al. 1997, Bertholet et al. 2005, Bray et al. 2011, Jonas et al. 2012, Drummond et al. 2013).

A meta-analysis of controlled trials of screening and brief intervention implementation strategies in primary health care to reduce heavy drinking suggests that to increase delivery of alcohol screening and brief interventions and decrease patients’ alcohol consumption, implementation strategies should include a combination of patient-, professional- and organisational-orientated approaches and involve mid-level health professionals as well as physicians (Keurhorst et al. 2015). Indeed, Pearson et al. 2004 suggested that the healthiest level of alcohol consumption actually depends on an individual's age, sex, overall health and lifestyle. This is a calculation which

is best determined by a medical practitioner. Accordingly, a strategy that has shown to be effective in the USA and in Australia, both in terms of cost and in decreasing risky alcohol consumption, including in 'at risk' groups, is the screening and interviewing of patients by primary health care providers (Ettner et al. 2014, Harris et al. 2014, Barnes et al. 2015, Duru et al. 2015, Keuhorst et al. 2015).

For example, brief interventions involve one to three short (5-10 minute) sessions comprised of personal feedback on alcohol-related health problems and risk, as well as advice, options of treatment and self-help (Ockene et al. 1999, Chang et al. 1999, 2000, 2005, 2006, Reiff-Hekking et al. 2005). Several controlled studies have examined the effectiveness and impact of brief interventions with pregnant women, for example, and all concur that pregnant women following the brief intervention were up to five times more likely to abstain from alcohol completely or at least reduce their alcohol consumption from heavy to light levels, with improved birth outcomes (Hankin et al. 2000, Handmaker and Wilbourne 2001, Hankin 2002, Sokol et al. 2003, Chang 2004, O'Connor and Whaley 2007). Inclusion of the pregnant woman's partner in the brief intervention improved the outcome for heavy alcohol consumers (Chang et al. 2005). Thus brief interventions appear to be an appropriate effort to modify problematic and potentially problematic alcohol consumption and to avert its adverse consequences in at risk pregnant women or those planning pregnancy. Even for women who are not 'at risk', a routine screening provides an opportunity to discuss the health effects of alcohol consumption in a non-judgemental, health-orientated setting to convey the message that these issues are important to the pregnancy and birth outcomes.

Motivational interviewing involves more comprehensive counselling and guides the recipients to explore their ambivalence about changing behaviour while focusing on the perceived discrepancy between current behaviours and overall goals (Miller and Rollnick 2012, 2014). It is particularly effective in reducing the consumption of heavy consumers. For example, in a pilot study of motivational interviewing, which was an empathic, participant-centred but directed session focusing on the health of the participant's unborn baby, all participants reduced their alcohol consumption and maximum blood alcohol concentrations throughout their pregnancy (Handmaker et al. 1999). Another pilot study entitled the Project CHOICES targeted non-pregnant women at high risk of a heavy alcohol-exposed pregnancy and hence giving birth to an alcohol-affected child (The Project CHOICES Intervention Research Group 2003). It consisted of four brief motivational interviews. At the six-month followup, 68.5% had reduced their risk.

The impediments to implementing the screenings, brief intervention and motivational interviewing include commitment, inadequate knowledge and skills among health care providers reinforced by limited education and training in medical school and in general practice, lack of time, and system barriers such as lack of intervention tools, protocol, referral or treatment resources (Nevin et al. 2002, Saunders 2004, Mengel et al. 2006). These impediments have been identified by both US and Australian primary health care providers. The literature, however, suggests that medical students and practitioners are not necessarily adequately trained in alcohol-related issues identify early abuse and dependence, intervene, and to give appropriate advice/recommendations about alcohol. Such training on alcohol abuse and addiction should be included in the curriculum of medical schools and in continuing education for medical practitioners so that they can be best prepared to prevent problems and identify and treat those

for whom prevention has failed. A Healthy Habits training program has been effectively initiated in the USA to address clinician certainty and confidence in diagnosing problematic alcohol consumption (Seale et al. 2005).

Priority 9 Guide practice through appropriate data collection and evaluation, and be responsive to emerging issues

This priority is appropriate. It is critical to the success of the NAS that *all* Australian alcohol-related datasets are identified prior to independent examination and evaluation in order to monitor the progress of the specific strategies and service delivery, and to determine the need to develop new programs and policies. Impact evaluations should also make maximum use of existing data and then fill gaps with new data. Agreed key performance indicators (KPIs) need to be selected prior to implementation of the NAS for monitoring performance throughout the implementation period, where the evaluation should aim to draw on different types of indicators (i.e., inputs, outputs, outcomes, impacts) to reflect the key changes and results related to the objectives of the NAS. Baseline data also need to be agreed on by all stakeholders prior to implementation of the NAS, and it is particularly important to check whether baseline data are available for the selected indicators as well as for socio-demographic and other relevant characteristics of the study populations. Regular feedback to all stakeholders is also required to ensure continued engagement with the NAS.

Priority 10 Improve responses for emergency services

This priority is appropriate. An audit, however, of all relevant existing emergency services and their responses should also be made to provide robust baseline data in order to determine what specific strategies are required to improve responses as well as to determine the key performance indicators. A feedback loop would also facilitate continuous improvement in responses for emergency services.

Priority 11 Improve criminal justice responses for alcohol-related offences

This priority is appropriate. An audit, however, of all relevant criminal justice responses for alcohol-related offences to provide robust baseline data in order to determine what specific strategies are required to improve responses as well as to determine the key performance indicators. A feedback loop would also facilitate continuous improvement in responses for the criminal justice system.

Priority 12 Reduce chronic harms and disease related to alcohol use

This priority is appropriate *but* should be an overarching priority for all the priorities (1-11) listed in the Discussion Paper together with reducing short-term harms related to alcohol use. Harm reduction is a central pillar of the harm minimisation approach. As of March 2009 at least 84 countries worldwide supported or allowed a harm reduction approach to drug policy (International Harm Reduction Association 2008³). Harm reduction is also supported by the following key international organisations:

- United Nations General Assembly
- UNAIDS - the joint United Nations Programme on HIV/AIDS

³ <http://www.ihra.net/>

- United Nations Office on Drugs and Crime
- World Health Organization
- International Narcotics Control Board
- United Nations High Commissioner for Human Rights.

The International Harm Reduction Association (2009) defines harm reduction as “policies, programmes and practices that aim to reduce the harms associated with the use of psychoactive drugs in people... the defining features are the focus on the prevention of harm, rather than on the prevention of drug use itself, and the focus on people who continue to use drugs”.

The text specifically states “includes increasing awareness of chronic harms of alcohol use such as cancer.” Given that the risk generally only significantly increases when consumption is above light to moderate for both men and women (Allen et al., 2009, Bagnardi et al. 2013, Cao et al., 2015), and that the relationship is complex where most meta-analyses of epidemiological studies have shown that alcohol consumption is associated with an increased risk of selected cancers (considered as alcohol-related cancers) but not of all cancers, highlighting the specific disease state ‘cancer’ in the text appears inappropriate. While epidemiological studies show that cancers of the upper aerodigestive tract (UADT) and breast are log linearly associated with alcohol consumption so that any amount of alcohol consumption is associated with some, however minor, increase in risk (Bagnardi et al., 2001, Corrao et al., 2004, IARC 2010, Bagnardi et al., 2013, 2015), thresholds for alcohol have been suggested for some other cancers such as colorectal (WCRF/AICR 2007, Bagnardi et al., 2013), no relationships have been found with some cancers (Baan et al., 2007) and even inverse or J-shaped relationships occur with some cancers (Jin et al., 2013, Bagnardi et al. 2015).

In addition, it is known that the cumulative effect of other lifestyle choices with alcohol contributes to the occurrence of cancer. Of all lifestyle factors related to cancer, the attributable risk for tobacco is approximately 20%, that for diet is 20–50%, that for physical inactivity is 5.6% and that for alcohol is 4–6% (Doll 1998, Begg et al., 2007, 2008, Song et al., 2014). It has also been suggested that the risk of developing a cancer of the UADT is less when an alcoholic beverage is consumed with food (Dal Maso et al., 2002). Further adding to the complexity of the relationship between alcohol and cancers, are observed differences in some studies between the different types of alcoholic beverages and their relationship with cancer (Ferrari et al., 2014, Benedetti et al., 2009). These differences may be related to the composition of the beverage or its pattern of consumption.

In addition, the text could also be considered as unbalanced as it does not include the WHO-recognised potential benefits of light to moderate alcohol consumption on the cardiovascular system, diabetes and dementias (WHO 2014), and the observation that a reduction in overall mortality has been observed consistently for light to moderate consumers (McCullough et al. 2002, Spencer et al. 2005, Lee et al. 2009, Ford et al. 2011, Sun et al. 2011, Stockley et al. 2012). The little publicised Australian study of 7,989 individuals aged 65-83 years followed for five years (Spencer et al. 2005) showed consistent results with the US Centres for Disease and Control (CDC) study of 16,958 US individuals followed for 18 years (Ford et al. 2011). In the Australian study, the eight selected low-risk behaviours included having no more than two alcoholic (total 20 g alcohol)

drinks/day. Individuals with five or more of the selected low-risk behaviours had a lower risk of death from any cause within five years compared with those having less than five. More importantly the study showed that while most individuals already have some healthy habits, almost all could make changes to their diet and lifestyle to improve their health. The study did not suggest abstinence from alcohol, and avoidance of heavier alcohol consumption is also inferred.

It is, therefore, inappropriate to state in Priority 12 that “specific measures to reduce *overall* consumption of alcohol in the community are included”. It would be more appropriate to state that “specific measures to reduce the *heavy* and *risky* consumption of alcohol in the community are included”, given that the measures of alcohol-related harm related to short-term and lifetime risk (NHMRC 2009).

Question 3 - Are there other areas that should be prioritised?

An independent and critical examination and evaluation of the strategies of the current *National Alcohol Strategy 2006-2011* should be undertaken before the development of specific strategies and finalisation and implementation of the National Drug Strategy 2016-2021 occurs. Given that conclusions may be drawn based on imperfect data, it will be important to be transparent about the limitations and describe how these may have affected the findings, conclusions and recommendations of the evaluation.

1.10 Monitoring implementation and progress section

Question 1 - Thinking about the priority areas and population groups identified above, or that have been identified, what existing data sources and indicators could be used to provide meaningful and reliable measure of harm reduction? What new data sources require development?

A commitment to funding investment in the National Alcohol strategy 2016-2021 is currently missing for both the National and State and Territory governments.

A commitment to further consultation on the actual draft of National Alcohol strategy 2016-2011 before implementation is also missing.

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