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Professor Kate Conigrave Chair Alcohol Guidelines Committee GPO Box 1421 Canberra ACT 2601

**Dear Professor Conigrave** 

### SUBMISSION TO THE NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL'S AUSTRALIAN GUIDELINES TO REDUCE HEALTH RISKS FROM DRINKING ALCOHOL

Thank you for the opportunity to make a submission on the review of the *Australian Guidelines to Reduce Health Risks from Drinking Alcohol 2009* (Guidelines).

Guidelines on alcohol consumption are important as they enable individuals to be able to make informed choices about their drinking and how these compare choices to epidemiological evidence on risk of harm. Indeed the Guidelines document states that they "...allow individuals to make informed decisions regarding the amount of alcohol that they choose to drink."

However, informed choice is only possible if consumers receive accurate, evidence-based and timely information. The Guidelines need to be actively promoted to ensure that the public are aware of them to make the most informed choice possible.

Unfortunately, awareness of the Guidelines continues to be low. In 2012 a review by Michael Livingston found that fewer than five per cent (2.6 per cent of men and 2.5 per cent of women) were able to accurately name low risk levels for short and long term drinking. In addition, between 30 to 50 per cent were unable to provide estimates for low risk drinking levels.<sup>3</sup> This demonstrates that there is a strong discord between the publication of the guidelines and their use and understanding by Australians. In short, the Guidelines are out of sight and out of mind.

This submission by the Foundation for Alcohol Research and Education (FARE), outlines four areas for improvement in the updating and review of the Guidelines, these include the need to:

- 1. Clarify the wording of Guideline 1
- 2. Provide clear and strong advice about risk associated with alcohol consumption during pregnancy
- 3. Promote the Guidelines to the Australian public
- 4. Ensure that people are able to understand the Guidelines to be able to incorporate them into their life.

Research commissioned by FARE relevant to the Guidelines review has also been summarised. Links to online versions provided where appropriate.

#### 1. Clarify the wording of Guideline 1

The current wording of Guideline 1 'For healthy men and women, drinking no more than two standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury' is unclear.

Guideline 1 is about the lifetime risk of harm, the cumulative average of risk over time. However, this is confused by the current wording of drinking 'no more than two standard drinks on any day.' This means that over the course of a week an individual who drinks three drinks on one day, two drinks the next and then nothing for the rest of the week, is drinking outside of the Guidelines. This individual's average consumption over the week is less than two standard drinks per day. Therefore, on average, this individual's alcohol consumption is within the Guideline as their cumulative risk of lifetime harm from alcohol-related disease is low.

Additionally, the inclusion of 'or injury' within the Guideline tends to add further confusion. This is because is it similar to Guidelines 2 which is directed at keeping the risk of injuries low. The reference to injury should be removed from this Guideline.

Therefore, the wording of this Guideline should be clarified. It should state that drinking should be limited to an average of two standard drinks or less per day to keep the lifetime risk of harm from alcohol-related disease relatively low.

# 2. Provide clear and strong advice about risk associated with alcohol consumption during pregnancy

It is important that the Guidelines continue to provide strong advice about the risks of alcohol consumption during pregnancy. This is because alcohol consumption during pregnancy is associated with a range of adverse consequences including miscarriage, stillbirth and Fetal Alcohol Spectrum Disorders. The most recent National Drug Strategy Household Survey (NDSHS) continues to show that 47 per cent of women drink during pregnancy. This rate has marginally improved since the 2010 survey, where 51 per cent of women said that they drank alcohol during their pregnancy and 49 per cent abstained.

Additionally, the 2010 survey found that one in five women or 20 per cent continue to drink even after being aware of their pregnancy. This rate is double that of women in Canada (10.8 per cent)<sup>4</sup> and the United States of America (10.2 per cent).<sup>5</sup> These lower rates are reflective of long-running public education campaigns on the harms of alcohol consumption and pregnancy.<sup>6</sup>

Awareness of alcohol harms and pregnancy in Australia does appear to be slowly improving. FARE's annual polling has shown an increase in the percentage of people who are aware that the recommended maximum number of alcoholic drinks a pregnant woman can have on any one day to avoid harm to the fetus is zero. In 2012, 61 per cent of respondents made the correct estimate (zero consumption), this has increased to 74 per cent in 2016. This change in awareness is outlined in Table 1 below.

Table 1. Awareness of the number of standard drinks for pregnant women to avoid harm to the fetus

		P			
	2012 (%)	2013 (%)	2014 (%)	2015 (%)	2016 (%)
Made correct estimate (zero standard drinks)	67	65	67	74	74
Estimated 1-2 standard drinks	24	21	21	14	14
Estimated 3 or more standard drinks	1	2	2	3	2
Don't know	8	11	10	9	10

Source: FARE's Annual Alcohol Polls 2012 to 2016.

There does appear, however, to be a disconnection between the numbers of people being aware that the number of standard drinks a pregnant woman can drink is zero and the actions of pregnant women themselves.

This view is substantiated by research undertaken by the University of Canberra. This found that women interpreted health messages to believe low/occasional alcohol consumption during pregnancy was okay. The women had also described receiving reassurance from health professionals about this and defended their views by emphasising associating low-level consumption with low risk.<sup>7</sup>

This highlights the need to continue to promote Guideline 4 so women and their partners are aware of the guidelines and the reasons for it.

It is also important that the Guidelines be promoted to health professionals, as they are a leading source of information for women about alcohol and pregnancy. It is also critical that the advice provided by health professionals is evidence-based and consistent with the Guidelines. Despite this, FARE's *Women Want to Know* project which was launched in July 2014 was the first time the Guidelines had been promoted to health professionals since their release in 2009. A baseline survey of health professionals knowledge of the Guidelines found that one in five had not heard of the Guidelines and only a third are familiar with their content.<sup>8</sup>

A key issue evident during the *Women Want to Know* project was health professionals' belief in the Guidelines and in particular, their faith in the evidence that underpins the Guidelines. Pre and post surveys were undertaken with health professionals (General Practitioners, Midwives and Obstetricians and Gynaecologists) and these showed that for Guideline 4a "for women who are pregnant or planning a pregnancy, the safest option is not to drink alcohol," one in 20 (five per cent) believe that the evidence does not support this advice, at any level of alcohol consumption. The belief in the strength of the evidence for Guideline 4a was highest among Midwives (73 per cent) and lowest among Obstetricians and Gynaecologists (45 per cent).<sup>9</sup>

For Guideline 4a "If you are breastfeeding, the safest option is not to drink alcohol", four per cent of health professionals believed that the evidence did not support this guideline for any level of consumption. Midwives were the group most likely to believe that there is strong evidence supporting the breastfeeding guideline for all levels of consumption (64 per cent), Obstetricians and Gynaecologists least likely (32 per cent).<sup>10</sup>

The evaluation also found that 11 per cent of health professionals were continuing to provide advice that was inconsistent with the Guidelines and undermined the Guidelines as well as perpetuating certain myths about alcohol consumption and pregnancy. Examples included that an occasional small drink is reasonable, that no alcohol in first trimester is safest, that one standard drink on special occasions was okay, to avoid binge drinking or that one standard drink per day was acceptable.

When asked what advice they give to women about alcohol consumption and breastfeeding examples included that women should plan breastfeeding around alcohol consumption (33 per cent of midwives said they advised this), to 'pump and dump' if drinking to excess, that an occasional small amount of alcohol is reasonable and that one standard drink on special occasions is ok. Again, these messages do not align with the guideline 4b.

Given that the advice from health professionals often departed from and undermined the Guidelines, the evaluation found that ensuring that correct advice is consistently given to women is more important in the immediate future than trying to encourage more health professionals to initiate the conversations about alcohol. The evaluation highlighted the need to convince health professionals of the evidence for the Guidelines, especially around low levels of alcohol consumption and potential for harm. The current evidence on this was insufficiently compelling for many health professionals to consider changing their current approach. Comments by health professionals included:

"FASD, this is a distortion of what is known to push the party line. It isn't evidence-based, it is more like a barrister making a certain argument by stringing things together and it is a tad patronising." – Specialist.

"Yes, there exists no evidence that drinking during pregnancy is good, but there is also no evidence that a little is bad." – Specialist.

"It is unconvincing we [still] don't know what safe levels are. They should be honest and say we think it is probably harmful – it would be OK to say that." – GP.

"... I didn't agree with the fact that there was no safe level of drinking when breastfeeding and it should be completely discouraged..." – Midwife.

"I just think that a blanket rule of there is no safe level of drinking whilst breastfeeding will make women feel guilty for having the occasional drink as the baby gets older." – Midwife.

The issue of evidence around low levels of alcohol consumption and pregnancy continues to be raised and debated. The review panel for the development of the 2009 Guidelines took a precautionary approach, with a standard of no risk being acceptable in this circumstance. This reflects the uncertainty around low levels of alcohol consumption. FARE recommends that this approach continue because the NDSHS shows that around 50 per cent of women continue to drink before being aware of their pregnancy. Added to this is that the *Women Want to Know* evaluation found that over one in ten GPs and specialists (and three per cent of midwives) believe that one or two drinks per day could be safely consumed without any risk to the fetus. Therefore, there is a need to continue to raise awareness among health professionals about there being no evidence that low levels of alcohol consumption are safe during pregnancy, that a precautionary principle needs to be taken and related to this, focus on convincing health professionals of the importance of giving a message that is always consistent with Guidelines.

The next edition of Guidelines should also provide information for health professionals and the public on the risks and evidence for women who may have consumed alcohol before being aware of the pregnancy and what assurances can (or cannot) be given around harm.

#### 3. Promote the Guidelines to the Australian public

As outlined earlier a key issue has been a lack of promotion since the current Guidelines were published in 2009. This has resulted in little awareness of them by the Australian public. The Guidelines provide a valuable, independent and authoritative source of information for Australians on alcohol and have a crucial role in raising awareness about safe drinking levels.

Unfortunately, too little work has been done by Governments to promote the Guidelines in fact Western Australian is the only jurisdiction to implement a public education campaign on the Guidelines since their release. Horizon Research undertook an independent review of the National Alcohol Strategy (NAS) in 2011. This included a qualitative review of the promotional products and communications materials produced by the Department of Health for the NAS including standard drink resources; information on the health risks associated with alcohol and promotion of the Guidelines. This review found that:

There is low awareness of the NHMRC guidelines.... These findings suggest that the Guidelines will not engage the community nor influence attitudes towards the consumption of alcohol merely by virtue of their existence or being the 'official' recommendations. Similarly, a 'low key' approach [to promotion] is unlikely to have a significant impact. A strategy based on 'general education' is too passive and does not challenge drinking habits which are seen to be hugely enjoyable and an integral part of Australian's social lives.<sup>13</sup>

Given the time, effort, and the cost spent in developing the Guidelines, this outcome is disappointing.

FARE has been measuring community awareness of the Guidelines over time and this awareness has declined.<sup>1</sup> Table 2, outlines that in 2012, 61 per cent of respondents said that they were aware of the Guidelines (three years after their release) but this has dropped to 53 per cent in 2016 (seven years after their release).

Table 2. Australians' awareness of the Guidelines between 2011 and 2016

	2011 (%)	2012 (%)	2013 (%)	2014 (%)	2015 (%)	2016 (%)
Yes, aware of Guidelines	12	14	11	13	17	12↓
Yes, but not familiar with content	42	47	41	39	41	41
Subtotal	54	61	52	52	58	53↓
No, not aware of the Guidelines	46	39	48	48	41	47↑

<sup>↑↓</sup> Arrows denote a significant change from the previous year's results (applied to 2016 data only).

FARE has also measured peoples' awareness of the recommended maximum number of standard drinks outlined in Guideline 1 and 2 for long term and short term risk. Of those who indicated they are aware of the Guidelines, 41 per cent were able to correctly estimate the maximum number of drinks a person can have to minimise long term risks (Guideline 1). Three in ten (30 per cent) made incorrect estimates and 29 per cent do not know. Table 3 provides an overview of this from 2011 to 2016.

Table 3. Awareness of correct estimate for Guideline 1 between 2011 and 2016

	2011 (%)	2012 (%)	2013 (%)	2014 (%)	2015 (%)	2016 (%)
Made correct estimate (two standard drinks)	38	37	35	39	43	41
Made incorrect estimate	35	30	28	35	29	30
Don't know	27	33	37	26	28	29

For Guideline 2, only 9 per cent know that the maximum number of standard drinks a person can have in one sitting to minimise short term risks is four. The majority (58 per cent) of people made incorrect estimates and 33 per cent did not know.

Table 4. Awareness of correct estimate for Guideline 2 between 2011 and 2016

	2011 (%)	2012 (%)	2013 (%)	2014 (%)	2015 (%)	2016 (%)
Made correct estimate (four standard drinks)	10	11	8	7	7	9
Made incorrect estimate	60	52	52	60	60	58
Don't know	31	37	41	33	33	33

Further analysis found that men (21 per cent) are more likely than women (14 per cent) to overestimate the number of standard drinks to avoid long term harms, citing more than two drinks per day. Men (9 per cent) are also more likely than women (4 per cent) to overestimate the number of standard drinks recommended to avoid short term harms, citing more than four drinks on a single drinking occasion.

Table 3 and 4 demonstrate that the level of awareness on the correct recommended maximums for Guideline 1 and 2 have remained stable since 2011. Highlighting that there has been very little to no change in Australians' awareness of the Guidelines over the last five years.

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<sup>&</sup>lt;sup>1</sup> Data for FARE's Annual Polls is gathered through a permission-based online polling, weighted by age, sex and location. The sample for this survey are selected among panel members with quotas applied to ensure that it reflects the current Australian population. More information on this process is available in FARE's Annual Poll publications.

The data from FARE's Annual Alcohol Polls continues to be in line with from the NDSHS. Data from the 2007 NDSHS found that 42.5 per cent of males and 50.2 per cent of women did not know correct estimates for long term risks (Guideline 1) and 37.5 per cent of men and 42.9 per cent of women did not know estimates for short term risk (Guideline 2). Data from 2010 showed 41.8 per cent of men did not know correct estimates for long term risk (Guideline 1) and 38.5 per cent of men and 45.9 per cent of women did not know correct estimates for short term risk (Guideline 2). <sup>14</sup>

Promotion is crucial. Research published in 2014 found that those who drank in excess of the Guidelines had very low awareness of the Guidelines and in particular the threshold levels for low-risk consumption. Over a third (39.2 per cent) said they did not know the consumption threshold for women (39.2 per cent) and 40.4 per cent did not the consumption threshold for men. More than a third (39 per cent) believed that the 2001 guidelines for men were still relevant (that men could consume between two to four standard drinks per day).<sup>15</sup>

Promotion can result in widespread knowledge. Denmark introduced a ten-year public education campaign from 1990 to 1999 on their drinking guidelines. After ten years this campaign resulted in more than half of respondents being aware of Danish drinking guidelines for their gender. An Australian study has also found that young people who had an accurate understanding of the Guidelines reported drinking at lower-risk levels. The authors note that this suggests "...that education and information aimed at conveying alcohol risk may be effective in reducing risky consumption." An ongoing, considered promotion strategy for the Guidelines is therefore warranted.

Table 4 also demonstrates that awareness of the actual content of the Guidelines, as measured by FARE Annual Alcohol Polls has remained stable from 2012 to 2016. This demonstrates the need to only promote the Guidelines but also explain their content and what it means for individuals.

## 4. Ensure that people are able to understand the Guidelines to be able to incorporate them into their life

The Guidelines state that "a range of plain-English booklets and other resources will be produced to help individuals, families and community groups to make choices based on the guidelines." Unfortunately, only two general brochures on the Guidelines were produced and the Government website <a href="https://www.alcohol.gov.au">www.alcohol.gov.au</a> established. These resources were found by Horizon Research review to be inadequate in appealing to the general public. It is disappointing then that these brochures and website remain the core strategies to promote the Guidelines and have not changed despite the review in 2011.

The translation of health and medical research is a core theme of the NHMRC Corporate Plan. Therefore, the promotion of the Guidelines and translating these so they can be easily understood and adopted by members of the public should be a core part of NHMRC's work.

There are several concepts that impact the adoption of the Guidelines by members of the general public, these include understanding: risk; standard drinks and alcohol-related disease and injury.

The Guidelines uses the "epidemiological definition of risk," which is "... a person's risk of experiencing an adverse health outcome is defined as the probability of the person developing that outcome in a specified time period."<sup>19</sup> The Guidelines also introduced a concept of lifetime risk of dying of an alcohol-related cause. This concept has received little attention. These definitions of risk need to be better explained so that people understand how risk relates to them and the probability of experiencing alcohol-related harm.<sup>20</sup>

Linked to understanding of risk is the difficulty people have in understanding 'alcohol-related disease or injury' as well as 'alcohol-related injury arising from that occasion.' The Horizon Research study found that these terms are too vague and broad and that they fail to emphasise the dangers of alcohol intake. The review found that the public to give little consideration to the health risks associated with alcohol and were not familiar with long term harm beyond heart, liver and kidney diseases.<sup>21</sup> Alcohol is linked

with numerous health conditions, it is a known carcinogen, <sup>22</sup> linked to cardiovascular disease, <sup>23</sup> mental health conditions, <sup>24</sup> and obesity. <sup>25</sup>

Awareness of the health risks associated with alcohol is low. FARE's 2016 Annual Alcohol Poll found only 6 per cent of Australians were aware of links to heart disease, stroke, mouth, throat and breast cancer. The proportion of Australian who knew that alcohol is associated with heart disease has also declined, from 56 per cent in 2014 to 51 per cent in 2016. This is concerning and highlights that lack of promotion of the Guidelines to the public. FARE's polling has also found high belief in claims that are scientifically questionable. In particular, the 2013 Poll found that 62 per cent of people believed that red wine is good for their health, <sup>27</sup> although the evidence to support this is weak, and these claims have largely been dispelled. <sup>28</sup>

A further difficulty to the adoption of the Guidelines is the publics' understanding of 'standard drinks' and how to calculate these.<sup>29</sup> Literature reviews have found people's ability to calculate standard drinks is very low.<sup>30</sup> Being unable to understand or calculate standard drinks has implications for those who want to adhere to the Guidelines to do so. Research by Michael Livingston has found that estimates of low-risk drinking levels varied substantially according to the amount of alcohol an individual consumes. Heavier drinkers were more likely to estimate higher thresholds for both short-and long-term harms.<sup>31</sup> This is a concern for those people who may believe that they are adhering to the Guidelines and not realising that they may be putting themselves at risk of alcohol-related harms.<sup>32</sup>

As part of the promotional material produced for the National Alcohol Strategy the Department of Health produced a 'standard drink glass.' This product was found by the Horizon Research review to have the most positive feedback of any items produced for the strategy as it helped people understand what a standard drink is.<sup>33</sup> It is important that the NHRMC produced and publicise a 'Standard Drink Glass', or a similar visual graphic that illustrates examples of typical sizes and strengths of popular beverages when the new Guidelines are released.

Lastly, the Horizon Report notes the universal awareness and acceptance of the 'two drinks in the first hour and then one per hour thereafter' rule.<sup>34</sup> While this formula was targeted at people who planned to drive after drinking, it has become accepted as the general drinking guidelines after a long and successful marketing campaign. However, as a general drinking guideline it is problematic as following this rule (by spending a few hours daily drinking) can have substantial long term health risks. To promote the next update of the Guidelines, a similarly long and sustained advertising campaign on multiple media platforms is necessary to ensure the public is equally informed on safe drinking guidelines and can incorporate them into their life.

In addition, as per the Horizon Research, review materials developed to promote the Guidelines should provide "A clear explanation of the guidelines and some indication of how they relate to the other recommendations such as Drink Driving. Also some comments about the role of 'alcohol free days' and some explanation of why there is no differentiation between men and women in the guidelines." 35

FARE has also included a table of commissioned research that is relevant to the Guidelines review; links to online access are provided. For further information on the issues outlined in the submission or the commissioned research, please contact Sarah Ward, Senior Policy Officer at <a href="mailto:sarah.ward@fare.org.au">sarah.ward@fare.org.au</a> or (02) 6122 8600.

Yours sincerely

MICHAEL THORN

CHIEF EXECUTIVE

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### Research commissioned or undertaken by FARE that is relevant to the Guidelines review

Date	Title	Summary	Link to online/hardcopy
September	Women Want to Know Evaluation	The Women Want to Know project encourages	http://www.fare.org.au/wp-
2016		health professionals to routinely discuss alcohol and	content/uploads/WWTK-Evaluation-
		pregnancy with women and provide advice	Report-Final-September-2016.pdf
		consistent with the Guidelines. The evaluation	
		found that the most successful elements of the	
		project were the reach of the promotion, and the	
		quality of the training developed. This 'cut through'	
		was encouraging given the challenges involved	
		reaching this audience.	
January	Risky business: The alcohol industry's	Reducing alcohol consumption for the top 20 per	http://www.fare.org.au/wp-
2016	dependence on Australia's heaviest	cent of Australian drinkers to the levels	content/uploads/research/Risky-business-The-
	drinkers	recommended in the Guidelines would see a 39 per	alcohol-industry's-dependence-on-Australia's-
		cent decrease in alcohol being consumed.	<u>heaviest-drinkers.pdf</u>
March	'I'm not clear on what the risk is':	An examination of women's experiences of alcohol	http://www.tandfonline.com/doi/full/10.1080/
2016	women's reflexive negotiations of	consumption during pregnancy and their views of	13698575.2016.1166186 Published in Health
	uncertainty about alcohol during	abstinence advice.	Risk and Society Vol 18. Issue 1-2.
	pregnancy		28 March 2016.
August	Conversations about alcohol and	This study examines media portrayal of alcohol and	http://www.fare.org.au/wp-
2015	pregnancy	pregnancy and women's response to this and to	content/uploads/research/Conversations
		health advice during their own pregnancies.	%20about%20alcohol%20and%20pregnancy.pdf
July 2014	Health professionals' use of Australian	A quota survey of health professionals found that	http://www.fare.org.au/wp-
	Alcohol Guidelines – Baseline Survey	while 78 per cent indicated they were aware of the	content/uploads/research/lpsos-SRI-
		Alcohol Guidelines, only 33 per cent were familiar	Report Baseline-survey-of-health-
		with the content.	professionals Quota-survey-FINAL-200514.pdf
July 2014	Health professionals' use of Australian	An open link website survey found similar findings	Hard copy available
	Alcohol Guidelines – Baseline Survey	to the quota survey above.	
	(website survey)		

Date	Title	Summary	Link to online/hardcopy
August	Measuring risky drinking: An	These findings support the continuing use of a risky-	http://fare.org.au/wp-
2013	examination of the validity of different	drinking definition of five or more drinks, based on	content/uploads/research/Measuring-risky-
	episodic drinking thresholds in	the Guidelines.	<u>drinking.pdf</u>
	predicting alcohol-related harms		
August	Over the limit: A profile of Australians	51.6 per cent of drinkers consumed in excess of	http://www.fare.org.au/wp-
2013	who drink in excess of the	either Guideline one or two in the 12 months prior	content/uploads/research/Over-The-Limit.pdf
	recommended guidelines	to 2010, with people aged 20 to 29 most likely than	
		any other age group to exceed both Guidelines.	
March	Perceptions of low-risk drinking levels	Australians generally overestimate the amount of	http://fare.org.au/wp-
2012	among Australians during a period of	alcohol they can drink on specific occasions and	content/uploads/research/Perceptions-of-low-
	change in the official drinking	most Australians are not aware of the	risk-drinking-levels-among-Australians-
	guidelines	recommendations in the Guidelines.	<u>FINAL.pdf</u>

#### References

http://fare.org.au/2016/10/women-want-to-know-project-evaluation/

Australia: A Review of the Evidence. *National Drug Research Institute and the Centre for Adolescent Health*. Commonwealth of Australia.

<sup>&</sup>lt;sup>1</sup> Heather, N. (2012). Drinking guidelines are essential in combatting alcohol-related harm: Comments on the new Australian and Canadian guidelines. *Drug and Alcohol Review*. 31(2): 153-155.

<sup>&</sup>lt;sup>2</sup> National Health and Medical Research Council (2009). Australian guidelines to reduce health risks from drinking alcohol. Department of Health and Ageing, Canberra. Page 1.

<sup>&</sup>lt;sup>3</sup> Livingston, M. (2012). Perceptions of low-risk drinking levels among Australians during a period of change in the official drinking guidelines. *Drug and Alcohol Review*. 31(2):224-30.

<sup>&</sup>lt;sup>4</sup> Walker, M., Al-Sahab, B., Islam, F. and Tamim, H. (2011). The epidemiology of alcohol utilization during pregnancy: an analysis of the Canadian Maternity Experiences Survey (MES). *BMC Pregnancy and Childbirth*. 11(52).

<sup>&</sup>lt;sup>5</sup> Tan, C., Denny, C., Cheal, N., Sniezek,J. and Kanny, D. (2015). Alcohol use and binge drinking among women of childbearing age – United States 2011-2013. Morbidity and Mortality Weekly Report 25 Sept 2015. Centres for Disease Control. <a href="https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6437a3.htm?scid=mm6437a3">https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6437a3.htm?scid=mm6437a3</a> w

<sup>&</sup>lt;sup>6</sup> Burgoyne, W. (2006). What have we learned: Key Canadian FASD Awareness Campaigns. Public Health Agency of Canada. http://www.phac-aspc.gc.ca/publicat/fasd-ac-etcaf-cs/pdf/fasd-ac-etcaf-cs e.pdf

<sup>&</sup>lt;sup>7</sup> Holland., K. McCallum, K. and Walton, A. (2016). 'I'm not clear on what the risk is': women's reflective negotiations of the uncertainty about alcohol during pregnancy. *Health, Risk and Society*. Volume 18, 2016 Issue 1-2. Pages 38-58.

<sup>&</sup>lt;sup>8</sup> Race, H. (2014). Health professional's use of the Australian Alcohol Guidelines, Baseline Survey. Ipsos Social Research Institute on behalf of the Foundation for Alcohol Research and Education (FARE).

<sup>&</sup>lt;sup>9</sup> Hall and Partners Open Mind (2016). Women Want to Know project evaluation.

<sup>&</sup>lt;sup>10</sup> Hall and Partners Open Mind (2016). Women Want to Know project evaluation. http://fare.org.au/2016/10/women-want-to-know-project-evaluation/

<sup>&</sup>lt;sup>11</sup> Callinan, S. and Room, S. (2012). Alcohol consumption during pregnancy: Results from the 2010 National Drug Strategy Household Survey. Foundation for Alcohol Research and Education, Canberra.

<sup>&</sup>lt;sup>12</sup> Alcohol think again website: Retrieved from: <a href="http://alcoholthinkagain.com.au/Alcohol-Your-Health/Risk-Assessment-Tool/Australian-Alcohol-Guidelines">http://alcoholthinkagain.com.au/Alcohol-Your-Health/Risk-Assessment-Tool/Australian-Alcohol-Guidelines</a>

<sup>&</sup>lt;sup>13</sup> Horizon Research. (2011). National alcohol harm reduction strategy: Qualitative evaluation of resources. The Australian Government Department of Health and Ageing, Canberra.

<sup>&</sup>lt;sup>14</sup> Livingston, M. (2012). Perceptions of low-risk drinking levels among Australians during a period of change in the official drinking guidelines. *Drug and Alcohol Review*. 31(2):224-30.

<sup>&</sup>lt;sup>15</sup> Bowden, J. Delfabbro, P., Room, R., Miller, C. and Wilson, C. (2014). Alcohol consumption and the NHMRC guidelines: has the message got out, are people conforming and are they aware that alcohol causes cancer? *Australian and New Zealand Journal of Public Health*. Vol 38 (1). 66-72.

<sup>&</sup>lt;sup>16</sup> Gronbaek. M., Stroger, U., Strunge, H., Moller, L., Graff, V. and Iversen, L. (2001). Impact of a 10-year nation-wide alcohol campaign on knowledge of sensible drinking limits in Denmark. *European Journal of Epidemiology*. 17(5):423-7.

<sup>&</sup>lt;sup>17</sup> Bowring, A., Gold, J., Dietze, P., Gouillou, M., van Gemert, C. and Hellard, M. (2012). Know your limits: Awareness of the 2009 Australian alcohol guidelines among young people. *Drug and Alcohol Review*. 31(2):213-23.

<sup>&</sup>lt;sup>18</sup> National Health and Medical Research Council (2009). Australian guidelines to reduce health risks from drinking alcohol. Department of Health and Ageing, Canberra Page: 8.

<sup>&</sup>lt;sup>19</sup> National Health and Medical Research Council (2009). Australian guidelines to reduce health risks from drinking alcohol. Commonwealth of Australia. Canberra. Page 33.

<sup>&</sup>lt;sup>20</sup> Horizon Research. (2011). National alcohol harm reduction strategy: Qualitative evaluation of resources. The Australian Government Department of Health and Ageing, Canberra. Page 35.

<sup>&</sup>lt;sup>21</sup> Horizon Research. (2011). National alcohol harm reduction strategy: Qualitative evaluation of resources. The Australian Government Department of Health and Ageing, Canberra. Page 17.

<sup>&</sup>lt;sup>22</sup> WHO International Agency for Research on Cancer (2010). Monographs on the Evaluation of Carcinogenic Risks to Humans. *Alcohol Consumption and Ethyl Carbamate* Vol 96.

<sup>&</sup>lt;sup>23</sup> Ronksley, P.E., Brien, S.E., Turner, B.J., Mukamal, K.J. & Ghali, W.A. (2011). Association of alcohol consumption with selected cardiovascular disease outcomes: a systematic review and meta-analysis. *The BMJ* 342:1-13 <sup>24</sup> Loxley, W., Toumbourou, J., Stockwell, T.R., et al (2004). The Prevention of Substance Use, Risk and Harm in

- <sup>25</sup> Suter, P. (2005). Is alcohol consumption a risk factor for weight gain and obesity? *Critical Reviews in Clinical Laboratory Sciencesi* 42:197–227.
- <sup>26</sup> Foundation for Alcohol Research and Education (2016). Annual Alcohol Poll 2016: Attitudes and Behaviours. Foundation for Alcohol Research and Education, Canberra.
- <sup>27</sup> Foundation for Alcohol Research and Education (2013). Annual Alcohol Poll 2013: Attitudes and Behaviours. Foundation for Alcohol Research and Education, Canberra
- <sup>28</sup> Stockwell, T., Zhao, J., Panwar, S., Roemer, A., Naimi, T., and Chikritzhs, T. (2016). Do "moderate" drinkers have reduced mortality risk? A systematic review and meta-analysis of alcohol consumption and all-cause mortality. *Journal on Studies on Alcohol and Drugs* 77(2), 199-200.
- <sup>29</sup> Horizon Research. (2011). National alcohol harm reduction strategy: Qualitative evaluation of resources. The Australian Government Department of Health and Ageing, Canberra. Page 24.
- <sup>30</sup> Kerr, W.C. & Stockwell, T. (2012) Understanding standard drinks and drinking guidelines. *Drug and Alcohol Review* 31(2):200-205.
- <sup>31</sup> Livingston, M. (2012). Perceptions of low-risk drinking levels among Australians during a period of change in the official drinking guidelines. *Drug and Alcohol Review*. 31(2):224-30.
- <sup>32</sup> Kerr, W.C., Stockwell, T. (2012) Understanding standard drinks and drinking guidelines. *Drug and Alcohol Review* 31(2):200-205.
- <sup>33</sup> Horizon Research. (2011). National alcohol harm reduction strategy: Qualitative evaluation of resources. The Australian Government Department of Health and Ageing, Canberra. Page 50.
- <sup>34</sup> Horizon Research. (2011). National alcohol harm reduction strategy: Qualitative evaluation of resources. The Australian Government Department of Health and Ageing, Canberra. Page 21.
- <sup>35</sup> Horizon Research. (2011). National alcohol harm reduction strategy: Qualitative evaluation of resources. The Australian Government Department of Health and Ageing, Canberra. Page 55.