







### **About the Foundation for Alcohol Research and Education**

The Foundation for Alcohol Research and Education (FARE) is an independent, not-for-profit organisation working to stop the harm caused by alcohol.

Alcohol harm in Australia is significant. Nearly 6,000 lives are lost every year and more than 144,000 people are hospitalised making alcohol one of our nation's greatest preventive health challenges.

For more than a decade, FARE has been working with communities, governments, health professionals and police across the country to stop alcohol harm by supporting world-leading research, raising public awareness and advocating for changes to alcohol policy.

FARE is guided by the World Health Organization's (2010) *Global strategy to reduce the harmful use of alcohol* for stopping alcohol harm through population-based strategies, problem directed policies, and direct interventions.

If you would like to contribute to FARE's important work, call us on (02) 6122 8600 or email info@fare.org.au.

## **Contents**

Introduction	4
Recent reviews	4
Recommendations	5
Suicide prevention activities must include alcohol	7
1.1 Alcohol's involvement in suicide in Australia	7
1.2 Policy implications	10
1.3 Population level measures	11
2. The role of alcohol in comorbid mental ill-health	14
2.1 Alcohol's involvement in comorbid alcohol use disorders and mental ill-health	
	14
2.2 Policy implications	17
3. Housing and homelessness and social determinants	19
3.1 Policy implications	20
4. Fetal Alcohol Spectrum Disorder: the social and economics on society	21
4.1 FASD should be considered as neurological disability	21
4.2 Policy implications	25
Conclusion	26
References	27

### **Glossary**

Throughout this submission a number of terms are used. The terms 'mental health', 'mental ill-health' and 'mental disorder' have the meaning outlined in Box 1, Definition of key terms in The Social and Economic Benefits of Improving Mental Health - Issues Paper.

Where applicable FARE has used the terminology for alcohol use as described in the original paper/research. FARE has noted these in the submission when they appear.

## Introduction

The Foundation for Alcohol Research and Education (FARE) welcomes the opportunity to provide a submission to the Productivity Commission inquiry into Mental Health and respond to the Issues Paper on the Social and Economic Benefits of Improving Mental Health. The submission highlights the inextricable link between alcohol consumption and mental ill-health and suicide, and the need for preventive measures to reduce consumption among at risk populations with subsequent improvements in population mental health.

FARE's submission has four sections that respond to the Productivity Commission's Issues Paper, concentrated on the areas for which alcohol consumption is most relevant. Section one explores suicide prevention and outlines how addressing alcohol use is an important suicide prevention initiative. Section two explores comorbidities between alcohol and mental ill-health and makes recommendations on how to address alcohol in order to improve mental health in Australia. Section three focuses on the links between housing difficulties and homelessness, alcohol use, and mental ill-health. Sections four explore the impacts of Fetal Alcohol Spectrum Disorders (FASD) on mental health and rates of suicide, and make recommendations on how to aid prevention.

These sections highlight important policy measures that can help to reduce the harm caused by alcohol and in turn reduce alcohol's contribution to the burden of suicide and mental ill-health in Australia. Paramount among these policy measures is reducing alcohol availability through the implementation of alcohol taxation reform. Reformation of alcohol taxation, recommended by the Productivity Commission in the *Shifting the Dial: 5 year productivity review*, has the added benefit of raising significant revenue that can be invested in evidence-based suicide prevention measures and mental health service provision.

### Recent reviews

FARE commends two highly relevant reviews to the Productivity Commission for consideration. In 2018 the New Zealand Government undertook the *Government Inquiry into Mental Health and Addiction*. Acknowledging the scope of the problem, the inquiry included the full spectrum of mental ill-health, from mental distress to enduring psychiatric illness, as well as the social determinants that influence mental health outcomes and contributing factors such as addiction and use of alcohol and other drugs. This inquiry highlighted that: "...mental health and addiction problems cannot be fixed by government alone, nor solely by the health system. We can't medicate or treat our way out of the epidemic of mental distress and addiction affecting all layers of our society. We need to ensure practical help and support in the community are available when people need it, and government has a key role to play here..."

The New Zealand Inquiry recommends establishing an agency to have central government responsibility for social wellbeing. The inquiry also recommends that alcohol and other drug policy be led by this agency. Australia did have a similar prevention agency – the Australian National Preventive Health Agency. This could have been a similar coordinating body for improvement of social wellbeing and mental health in Australia.

FARE also draws the Commission's attention to the Coronial inquest into the deaths of thirteen children and young people in the Kimberley, Western Australia.<sup>3</sup> This inquest was specific to deaths in Western Australia, but the report highlights the devastating issue of suicide among Aboriginal and Torres Strait Islander peoples. The recommendations from this inquest are pertinent to this current inquiry, as well as demonstrating the need for urgent review of the availability of alcohol in Australia.

## **Recommendations**

FARE makes the following recommendations to the Productivity Commission to:

- 1. Recommend that preventive health become a key area for government policy action and reform.
- 2. Explicitly recognises the role of in suicide, and that suicide prevention activities should also encompass alcohol harm prevention initiatives in the final report of this inquiry.
- 3. Recommend action to reduce the availability of alcohol are undertaken in order to reduce instances of suicide and that measures that reduce the availability of packaged liquor for home consumption late at night, such as restricting the hours that retail alcohol outlets and online alcohol delivery providers can operate, are considered.
- 4. Support the recommendations from *Shifting the Dial* and that the alcohol taxation system, is reformed specifically by replacing the ad valorem wine equalisation tax (WET) with a volumetric tax.
- 5. Recommend a proportion of revenue generated from alcohol taxation reform be quarantined to fund health programs.
- 6. Implement the success factors identified in the Aboriginal and Torres Strait Islander Suicide Prevention Evaluation Project report *Solutions that work: what the evidence and our people tell us* are incorporated into suicide prevention programs for Aboriginal and Torres Strait Islander peoples.
- 7. Introduce selective interventions aimed at groups at higher risk of suicide including Indigenous children and young persons, are included in the government approach to suicide prevention.
- 8. Support the recommendations from the Coronial inquest into the deaths of thirteen children and young persons in the Kimberley region of Western Australia are adopted, in particular:
  - Recommendation 8: introduce restrictions on the purchase of take away alcohol across the entire Kimberley region
  - Recommendation 9: assess the feasibility of a Banned Drinker Register that is modelled on therapeutic support for those who are placed on it
  - Recommendation 10: that police be sufficiently resourced to enforce the proscription on "sly grogging" in the Liquor Control Amendment Act 2018 [WA]
  - Recommendation 11: That there be recurrent, or long-term funding to town based patrols in the Kimberley for the provision of diversionary services to those who are abusing alcohol
- 9. Establish and fund a national public education campaign to raise awareness on the long-term health harms of alcohol consumption and the contribution of alcohol to mental ill-health.
- 10. Improve the linkages and coordination between mental health, alcohol and other drug, and primary care services to facilitate earlier identification of, and improved referral and treatment for, mental and physical health problems.
- 11. Review the commissioning of alcohol and other drug treatment services by Primary Health Networks to establish if these are meeting clients' needs and recognising comorbid issues.

- 12. Include the collection of mental disorders on the Alcohol and Other Drug Treatment Services National Minimum Data Set. Undertake regular surveys of the Australian population for addiction and mental health issues.
- 13. Develop a strategy to ensure that there are no exits into homelessness from alcohol and other drug services and mental health, treatment facilities, including hospitals.
- 14. Invest in appropriate and secure housing, including transitional housing, to provide sufficient supply for those exiting treatment facilities.
- 15. Consider establishing a social wellbeing agency to tackle social determinants of health through a whole-of-government lens. At minimum, require the social determinants of health and their links with mental health to be considered in mental health strategies.
- 16. Recommend that FASD be listed as a neurological disability rather than an intellectual disability in the *National Mental Health Plan* and recognised as such by the Productivity Commission.
  - Adequate recognition of FASD as neurological disability would allow for the appropriate early intervention in childhood thereby lessening the impact of secondary effects of FASD.
- 17. Recognise FASD, rather than Fetal Alcohol Syndrome, in the National Disability Insurance Scheme and by the National Disability Insurance Agency, with appropriate support provided to support people with FASD.
  - The correct diagnostic terminology for FASD should be used in Australia, this broadening would allow appropriate early intervention services to be provided and thus lessen the impact of secondary effects of FASD.
- 18. A range of early intervention programs for children with FASD or suspected FASD are implemented, funded and evaluated across Australia to determine which are effective.
- 19. Training on FASD, how to recognise signs of FASD and where to refer for assessment, be developed and rolled out across Australia to professionals working in the fields of: education, police, justice, child protection and justice systems; both juvenile and adult.
- 20. Continue funding the successful awareness campaigns, such as FARE's *Women Want to Know* and *Pregnant Pause* campaigns, to continue to educate health professionals about the risks of alcohol consumption during pregnancy and support pregnant women to be alcohol free.
- 21. Effective mandatory pregnancy warning labels by implemented across all alcohol products in Australia to ensure that the women receive consistent messages about the risks of alcohol consumption during pregnancy.

## 1. Suicide prevention activities must include alcohol

The Productivity Commission's Issues Paper highlights suicide prevention as a specific health concern to address in the context of mental health. The paper reports that there has been no significant reduction in the proportion of deaths from suicide in Australia over the past decade. As a consequence, suicide prevention has been made a priority in the *Fifth National Mental Health and Suicide Prevention Plan* agreed to by governments. Alcohol is frequently involved and implicated in suicide yet frequently absent in policy discussions on the matter of suicide prevention.<sup>4</sup>

### 1.1 Alcohol's involvement in suicide in Australia

Alcohol is ubiquitous in cases of suicide and sudden or unexplained deaths in Australia. Alcohol use disorders are comorbid in a high proportion of cases of suicide. Internationally, it has been shown that after mood disorders, alcohol use disorders are the second most common psychiatric disorder in people who die by suicide.<sup>5</sup>

There are clear physiological mechanisms through which alcohol use can increase suicidality. Alcohol is known to depress the central nervous system which can cause impulsiveness and psychological distress; both are risk factors for suicidality. Alcohol can cause deficits in executive functioning of the brain, potentially contributing to limited problem solving abilities and difficulties in orientation to the future - these are two additional risk factors for suicide. People with alcohol use problems are also more likely to have relationship and work difficulties, which may in turn reduce social supports and increase their risk of suicide.

## 1.1.1 Alcohol is the most common substance present in the blood of completed suicides

Alcohol is commonly present in the blood of cases of completed suicides, homicides and sudden or unnatural deaths in Australia. Research conducted in New South Wales between 1997 and 2006 found that alcohol was present in 40.6 per cent of all cases, and the most common substance detected in the blood in cases of completed suicide not due to deliberate overdose. The median blood alcohol concentration found at autopsy was 0.10g/100ml with a range of 0.01g to 0.4g/100ml. In this situation, only 5.8 per cent had known histories of alcohol use disorders. Thus, 34.8 per cent of the cases did not have histories of alcohol use. This suggests that alcohol consumption frequently increases the risk of suicide.

Alcohol features heavily in sudden and unnatural deaths.<sup>9</sup> An Australian study examining deaths between 1997 and 2011 where there was a presence of very high alcohol concentrations concluded that alcohol contributed to 50 per cent of all homicides, 44.8 per cent of all suicides and 77.6 per cent of all cases of accidental death where the decedent was found to have a blood alcohol concentration of greater than or equal to 0.3g/100ml at autopsy.<sup>10</sup> Death from alcohol poisoning or overdose is likely to occur between 0.31 and 0.4g/100ml. At this level of alcohol consumption loss of consciousness and suppression of vital life functions is likely, leading to death.<sup>11</sup>

In the 263 cases where there was a presence of very high alcohol concentrations in death examined in 2013, 78.7 per cent had a history of 'reported alcohol problems', which included a treatment history or known alcohol dependency. However, none of the individuals were enrolled in any form of alcohol treatment at the time of death suggesting that risk of suicide, accidental death, and being a victim of homicide are likely to be higher in those who have had or do have an alcohol use disorder but are not

currently receiving treatment.<sup>12</sup> It also raises the possibility that treatment may be a protective factor for sudden or unnatural death in those with an alcohol use disorder.

An examination of substances present in the blood of Australian suicide decedents (not due to deliberate overdose) found that compared to other substances, alcohol was significantly more likely to be involved in suicides that occurred at night, between 6pm and 6am.<sup>13</sup> The study of those suicides with presence of very high alcohol concentrations found that for decedents who are highly intoxicated at the time of death (with a blood alcohol concentration greater than or equal to 0.3g/100ml), the majority of cases of sudden or unnatural death occurred in the home environment (81.4 per cent) and only a very small proportion on licensed premises (1.5 per cent).<sup>14</sup> Alcohol and intoxication are closely tied to the completion of the suicide where the death occurred late at night, in the home and with a presence of high alcohol concentration. Alcohol and intoxication may be a catalyst or unplanned contributor in completed suicides, particularly where a person does not have a history of alcohol problems.

### 1.1.2 Alcohol consumption increases the risk of attempted suicide

Not only is alcohol commonly present in high concentrations in the blood of those who complete suicide, there is evidence that acute alcohol use increases the risk of a suicide attempt. A meta-analysis of seven international studies of trauma hospitals and emergency rooms, one of which included data from an Australian emergency department, found that acute alcohol use increased the risk of suicidality. Acute alcohol use was defined as consumption within three to 24 hours of suicide attempt and was associated with a six-fold increase in the risk of a suicide attempt on average. Importantly, the higher the amount of acute use of alcohol consumed, the greater the risk of attempt of suicide with 2.7 fold increases in the risk with low levels of consumption, and up to 37.18 fold increases in the risk with high levels of consumption. The authors noted that this dose response relationship mirrors the relationship between alcohol and impulsivity, aggressiveness, depressed mood and impaired cognitive function which might explain some of the factors implicated in the association between higher levels of alcohol consumption and higher risk of suicide attempt.

A study of suicide cases in Queensland and New South Wales found that 21.6 per cent of persons who died by suicide had an alcohol use disorder at the time of death. Australian data has also shown that young and middle-aged people are more likely to have an alcohol use disorder at the time of suicide than older people. For instance, an analysis found that 24.7 per cent of people aged 35 to 59 years had an alcohol use disorder at the time of suicide compared to 13.4 per cent of people aged 60 years and older.

## 1.1.3 Increases in per capita alcohol consumption are associated with increased suicide risk across the whole population

At a population level, higher levels of alcohol consumption are associated with a greater likelihood of suicide risk. A systematic review (not including Australia) of sixteen population level studies, predominantly conducted in European countries, grouped countries according to detrimental drinking pattern. It examined the percentage increase in suicide rate with every 1-litre increase in per capita alcohol consumption. It found that in general, suicide rates increased with an increase in per capita alcohol consumption. Significantly, there was a gradient in this effect with the percentage increases in suicide rate largest in the countries with the most detrimental drinking pattern and smallest in the countries with the least detrimental drinking pattern. This suggests that for all countries, strategies to reduce alcohol consumption and availability can help to prevent suicide, and that the gains that will be made by preventive activities are likely to be greater in countries with more problematic drinking.

### 1.1.4 Suicide and alcohol in Aboriginal and Torres Strait Islander peoples

Aboriginal and Torres Strait Islander peoples are disproportionately impacted by both alcohol harm and suicide. This is despite higher rates of non-drinking among Aboriginal and Torres Strait Islander peoples.

Suicide and mental health issues experienced by Aboriginal and Torres Strait Islander peoples are significantly missing from the Issues Paper. This needs urgent correction.

Research evidence notes that the trigger for suicide among Aboriginal and Torres Strait Islander peoples is significantly different to that of the general population. The Senate Standing Committee on Community Affairs inquiry into 'Accessibility and quality of mental health services in rural and remote Australia' reported in December 2018. It found that suicide by Aboriginal and Torres Strait Islander peoples had very little to do with clinical mental health; rather it was associated with alcohol and other drug use, relationship difficulties, family conflict or a previous suicide attempt, intergenerational trauma, loss of culture, and other social determinants, such as employment, education, and housing.<sup>19</sup>

A Consultant Psychiatrist with the Kimberley Mental Health and Drug Service, who gave evidence to this inquiry, said that: "Suicide is almost never due to a mental illness. So it's is not due to something that we can diagnose and treat within a conventional Western model, within a Western framework of how our hospitals and our clinics are set up." The Psychiatrist noted the upstream factors of substance use, poverty, and children in custody and incarceration, as causes for suicide.

Several Aboriginal and Torres Strait Islander communities, who gave evidence to the inquiry, and who are involved with the National Suicide Prevention Trial, expressed their severe frustration with the lack of progress and cultural competence of this trial to their communities. The National Suicide Prevention Trial commenced in 2016-17 across 12 sites in Australia. The trials are led by Primary Health Networks (PHNs), funded by the Australian Government and will run until June 2020. The trial sites have higher than average suicide rates and the project is meant to provide support services relevant to each individual community. However, Aboriginal and Torres Strait Islander communities involved in the trial expressed disappointment, stating that the services are too prescriptive and did not take account of cultural considerations in service provision. Aarnja, the regional body for Kimberley Aboriginal people in Western Australia, explained how they designed their own suicide program out of desperation with the trial. The Aarnja program is a family empowerment project for extended, rather than nuclear, families and is based on local cultural frameworks.<sup>21</sup>

A Coronial inquest into thirteen suicides by Aboriginal children and young people in the Kimberley in Western Australia has found that the current suicide prevention programs in the area are not working, that they lack cultural sensitivity, and need urgent review. The inquest found that alcohol and the harm from alcohol featured heavily in all of these suicides, with some children themselves using alcohol to escape and cope with horrific life circumstances. Seven directly witnessed family violence in the home, and three went on to have relationships marred by domestic violence themselves.<sup>22</sup> The children and young people's lives were marred by extreme levels of violence across their families and communities. This violence was often in combination with alcohol consumption, usually at high levels. The Coroner outlined that the children and young people had prolonged exposure to traumatic events across their lifetime and they had through these accumulated life stressors, reached a point of despair.<sup>23</sup>

The Coroner noted that most of the children and young persons had no contact with mental health services prior to their death but they voiced suicidal ideation or intent prior to their death. Despite this, all but one had not been seen by a primary health service (a GP) or the mental health service.<sup>24</sup>

It is not specified in the Coroner's report if any of the children, young people, their parents or members of their families, had sought or completed alcohol treatment. However, alcohol treatment services are extremely limited in the Kimberley region of Western Australia, and as most had not seen a primary health or mental health service, it is very unlikely they had attended alcohol treatment.

There was significant involvement with the extended family caring or child protection system, with nine of these children placed into care of other family members for extended periods of time. This was due to the level of alcohol abuse in the home compromising the ability of the parents to properly care for their children.

Alcohol also featured heavily in the suicide itself. Seven of the cases involved significant alcohol use in the lead up to the deaths, and at least two of the young persons had very high blood alcohol levels when they died. The Coroner notes that "regrettably they were able to buy large quantities of "take away" alcohol during the day and night of their deaths." <sup>25</sup>

### The Coroner noted that:

"The children and young persons experienced some temporally proximal events shortly before death, such as an argument, a relationship breakdown, or other disappointment. Such events may not ordinarily have caused or contributed to a suicide, but in a person with those pre-existing vulnerabilities, it has the potential to act as a precipitant to self-harm and suicide.

Their pre-existing vulnerabilities caused them to become overwhelmed by these events, and with varying degrees of impulsivity, in twelve of the cases, they chose to end their lives.

A consideration of their pre-existing vulnerabilities has required an inquiry into some aspects of the home environments of the children, their physical health, any mental health treatments, and their school attendances. The evidence frequently reflected dysfunctional home environments, a history of poor physical health, little to no involvement with the mental health services, and poor school attendance rates."<sup>26</sup>

This impulsivity and extent of pre-existing vulnerabilities have not been adequately recognised by existing services. Numerous witnesses at the inquest spoke of the need for government agencies to work collaboratively with local communities to co-design and implement community-led programs that foster the health and wellbeing of Aboriginal people, and that may prevent future deaths by way of suicide. The Coroner makes 42 recommendations at the conclusion of the inquest, including at least four that address the availability and pervasiveness of alcohol in the region.

### 1.2 Policy implications

## 1.2.1 Recognition of the role of alcohol and alcohol harm reduction measures in suicide prevention

As highlighted earlier, alcohol is ubiquitous in cases of suicide in Australia. However, the Issues Paper is silent on this matter. Alcohol increases the risk of suicide in numerous ways but most significantly alcohol use, and particularly intoxication, can be a catalyst to suicide that might not otherwise be present. Alcohol is a drug that depresses the central nervous system, affecting breathing rate and heart rate. Alcohol can cause impulsiveness, psychological distress, and limit the executive functioning of the brain. All of this combined is the reason why alcohol is commonly present in the blood of cases of completed suicides.

Addressing alcohol is a suicide prevention measure; alcohol prevention initiatives that increase the price of alcohol and limit the availability of alcohol in Australia will make a difference to rates of completed suicide in Australia.

#### **Recommendations:**

FARE makes the following recommendations to the Productivity Commission to:

- 1. Recommend that preventive health become a key area for government policy action and reform.
- 2. Explicitly recognises the role of in suicide, and that suicide prevention activities should also encompass alcohol harm prevention initiatives in the final report of this inquiry.

### 1.3 Population level measures

### 1.3.1 Physical availability of alcohol

It is clear from the evidence that reducing the availability of alcohol is a suicide prevention measure, both in reducing suicide attempts and successful suicide completions.

The New Zealand Government Inquiry into Mental Health and Addiction noted that:

"Alcohol and other drugs are tearing families and communities apart. People and communities called for decisive action to limit the sale and promotion of alcohol, particularly around children and young people. As well as more treatment and rehabilitation services, people argued for a mature drug policy, with addiction treated as a health, not a criminal justice issue."<sup>27</sup>

The inquiry recommended that a much bolder approach to alcohol law reform was justified and that a strict regulatory approach was needed on the sale and supply of alcohol in New Zealand.

Given that alcohol-involved suicides and sudden or unnatural deaths occur predominantly at night and in the home environment, reducing the availability of off-trade alcohol that can be consumed late into the night in the home environment could help to prevent some cases of suicide. Indeed, a recent systematic review of the impact of the physical availability of takeaway alcohol on consumption concluded that restricting availability by modifying days and hours of sale and outlet density reduced per capita alcohol consumption.<sup>28</sup>

### **Recommendation:**

FARE makes the following recommendation to the Productivity Commission to:

3. Recommend action to reduce the availability of alcohol are undertaken in order to reduce instances of suicide and that measures that reduce the availability of packaged liquor for home consumption late at night, such as restricting the hours that retail alcohol outlets and online alcohol delivery providers can operate, are considered.

### 1.3.2 Pricing levers

Evidence from both Australia and internationally demonstrates that alcohol consumption can be best reduced by increasing the price of alcohol through taxation reform. Research shows that an increase in alcohol tax/price, concentrated on the lowest-priced alcohol, principally targets the heaviest consumers. <sup>29,30,31</sup> The most efficient way to achieve this in Australia is to transition the alcoholic products currently subject to the ad valorem wine equalisation tax (WET) to a volumetric tax, as applies to all other alcohol products.

To date, at least thirteen government reviews, including at Commonwealth and State and Territory levels, have recommended volumetric taxation for wine.<sup>a</sup> There is also strong evidence of support for alcohol taxation reform within the alcohol industry. Spirits and Cocktails Australia (formerly known as the Distilled Spirits Industry Council of Australia [DSICA]) and Brewers Association of Australia both support the introduction of a volumetric tax on wine.<sup>32,33</sup> Two of the largest wine producers, Treasury Wine Estates and Pernod Ricard Winemakers (formerly Premium Wine Brands), who collectively represent 20.1 per cent of Australian wine production, support reform of the WET.<sup>34,35</sup>

The Productivity Commission has previously demonstrated support for reform of the WET and the introduction of a volumetric taxation for all forms of alcohol in its 2017 five-year productivity review *Shifting the Dial*. In this review, it argued for a uniform volumetric tax rate for alcoholic beverages calibrated to reflect the health impacts of alcohol consumption.<sup>36</sup> The significant revenue generated from alcohol taxation reform could help to fund further evidence-based suicide prevention activities and improved mental health services in Australia. Economic modelling commissioned by FARE has estimated that alcohol taxation reform involving a volumetric tax across all alcoholic beverages would generate \$2.9 billion in revenue per annum.<sup>37</sup> If governments are serious in their commitment to suicide prevention and the prevention of mental ill-health, they must be equally serious in their commitment to control alcohol consumption through evidence-based policy reform.

In its recent productivity review, the Productivity Commission argued in *Shifting the Dial* that "combining tax measures with complementary measures aimed at addressing the harm associated with excessive alcohol consumption (such as education and treatment) is likely to amplify the benefits, while also soliciting greater public support". This statement highlights the importance of coordinating efforts to raise public awareness of the problem, to educate and treat problems associated with alcohol harm, while simultaneously addressing supply-side issues. This presents a double-win, delivering stronger public support for reform of alcohol taxes while addressing harm from alcohol directly by increasing awareness of these harms and how to minimise them.

<sup>&</sup>lt;sup>a</sup> Reviews that have supported implementation of a volumetric tax on wine:

<sup>•</sup> the 1995 Committee of inquiry into the wine grape and wine industry

the 2003 House of Representatives Standing Committee on Family and Community Affairs inquiry into substance abuse

<sup>•</sup> the 2006 Victorian inquiry into strategies to reduce harmful alcohol consumption

<sup>•</sup> the 2009 National Preventative Health Taskforce report on *Preventing alcohol related harms* 

<sup>•</sup> the 2010 Australia's future tax system (Henry Review)

<sup>•</sup> the 2010 Victorian inquiry into strategies to reduce assaults in public places

<sup>•</sup> the 2011 Western Australia Education and Health Standing Committee inquiry into alcohol

<sup>•</sup> the 2012 Australian National Preventive Health Agency Exploring the public interest case for a minimum (floor) price for alcohol, draft report

the 2012 Australian National Preventive Health Agency Exploring the public interest case for a minimum (floor) price for alcohol, final report

<sup>•</sup> the 2014 House of Representatives report on the *Inquiry into the harmful use of alcohol in Aboriginal and Torres Strait Islander communities* 

<sup>•</sup> the 2017 Interim Report on the Effect of red tape on the sale, supply and taxation of alcohol

<sup>•</sup> the 2017 Northern Territory Alcohol Policies and Legislation Review - Final Report

the 2017 Productivity Commission Shifting the Dial: 5 year productivity review

#### **Recommendations:**

FARE makes the following recommendations to the Productivity Commission to:

- 4. Support the recommendations from *Shifting the Dial* and that the alcohol taxation system, is reformed specifically by replacing the ad valorem wine equalisation tax (WET) with a volumetric tax.
- 5. Recommend a proportion of revenue generated from alcohol taxation reform be quarantined to fund health programs.

## 1.3.3 Specific measures to address the rates of suicide for Aboriginal and Torres Strait Islander peoples

It is clear that specific, appropriate measures must be taken in relation to suicides by Aboriginal and Torres Strait peoples. The Aboriginal and Torres Strait Islander Suicide Prevention Evaluation Project (ATSISPEP) report *Solutions that work: what the evidence and our people tell us* published in 2016, outlines the success factors for Indigenous suicide prevention identified by ATSISPEP. These were categorised, in accordance with the Living is For Everyone (LiFE) Framework, into three levels of intervention: universal (Indigenous community-wide), selective (at risk groups), and indicated (at risk individuals). They were then further categorised for particular risk groups. One of the success factors, categorised as 'universal/Indigenous community-wide', was reducing alcohol and other drug use.<sup>39</sup>

The common elements, identified by the meta-evaluation of community-led Indigenous suicide prevention programs that had been evaluated, were:

- "Community empowerment, development, ownership community-specific responses
- Involvement of Elders
- Cultural Framework
- Partnerships with community organisations and Aboriginal Community Control Health Organisations
- Employment of community members/peer workforce"40

The Coroner who led the inquest into the thirteen suicides of children and young people in the Kimberley, Western Australia made recommendations around alcohol sales including recommendation 8 to restrict the purchase of take away alcohol across the entire Kimberley region, recommendation 9 to implement a Banned Drinkers Register modelled on therapeutic support for those who are placed on it, recommendation 10 that police be sufficiently resourced to tackle sly grogging into drug communities, and recommendation 11 to provide long-term funding for town based patrols and diversionary services for those found to be abusing alcohol. In addition, the Coroner was clear on the need for these recommendations and services to be implemented in conjunction and consultation with local Aboriginal and Torres Strait Islander communities and individuals.<sup>41</sup>

#### **Recommendations:**

FARE makes the following recommendations to the Productivity Commission to:

6. Implement the success factors identified in the Aboriginal and Torres Strait Islander Suicide Prevention Evaluation Project report *Solutions that work: what the evidence and our people tell us* are incorporated into suicide prevention programs for Aboriginal and Torres Strait Islander peoples.

- 7. Introduce selective interventions aimed at groups at higher risk of suicide including Indigenous children and young persons, are included in the government approach to suicide prevention.
- 8. Support the recommendations from the Coronial inquest into the deaths of thirteen children and young persons in the Kimberley region of Western Australia are adopted, in particular:
  - Recommendation 8: introduce restrictions on the purchase of takeaway alcohol across the entire Kimberley region.
  - Recommendation 9: assess the feasibility of a Banned Drinker Register that is modelled on therapeutic support for those who are placed on it.
  - Recommendation 10: that police be sufficiently resourced to enforce the proscription on "sly grogging" in the *Liquor Control Amendment Act 2018* [WA].
  - Recommendation 11: That there be recurrent, or long-term funding to town based patrols
    in the Kimberley for the provision of diversionary services to those who are abusing
    alcohol.

### 2. The role of alcohol in comorbid mental ill-health

The Productivity Commission's Issues Paper highlights the high levels of physical comorbidities in people with a mental illness. These physical comorbidities are important to acknowledge. Equally, the significant comorbidity between alcohol use disorders and mental disorders, and alcohol consumption and mental ill-health, on which the Issues Paper is silent, must be recognised.

## 2.1 Alcohol's involvement in comorbid alcohol use disorders and mental ill-health in Australia

There are a number of possible explanations for the high levels of comorbidity between alcohol use disorders and mental disorders. For the association between alcohol use and major depressive disorders, three potential explanations have been posited in the literature:

- 1. Heavy drinking or alcohol use disorders cause depressive illness
- 2. Depressive illness increases alcohol use and causes alcohol use disorder (that is a self-medication explanation)
- 3. A reciprocal causal relationship exists between the two, or there is another causal mechanism common to both, for example a genetic predisposition to both disorders.<sup>42</sup>

The conclusion of reviews on this matter are that all three explanations are possible and probably coexist, but for the association between an alcohol use disorder and major depression, the first posited pathway is thought to be the strongest and most prevalent. However, for post-traumatic stress disorder (PTSD) there is evidence to suggest that alcohol consumption more often develops after traumatic experiences, often as a coping mechanism, rather than being a precursor to traumatic experiences. For example, the consumption of the develops after traumatic experiences, often as a coping mechanism, rather than being a precursor to traumatic experiences.

### 2.1.1 Levels of comorbidity between alcohol use disorders and mental disorders

It is well established in Australian general population health surveys that there are high levels of comorbidity between risky drinking<sup>a</sup> and a range of mental disorders. Rates of heavy alcohol consumption tend to be higher in those with a mental disorder than in the general population. In Australia's Mental Health and Physical Health Tracker from August 2018, it was reported that according to National Health Survey data, men with mental disorders were 15 per cent more likely to report consuming alcohol at high levels compared to the general population. Women with mental health disorders were 10 per cent more likely to report consuming high levels of alcohol compared to the general population.<sup>47</sup>

Alcohol use disorders often coexist with or are comorbid with mental disorders. This co-occurrence is often referred to as a dual diagnosis. In Australia, data from the 2007 National Survey of Mental Health and Wellbeing (NSMHWB)<sup>b</sup> revealed that 42.3 per cent of Australians with a lifetime alcohol use disorder (alcohol abuse or dependence) also met the criteria for a mental disorder<sup>c</sup> over the previous 12 months. People with an alcohol use disorder were 4.5 times more likely to have a mental disorder over the prior 12 months than those without an alcohol use disorder. Importantly, further analysis of this data has shown that alcohol abuse was the most common substance use disorder among those with either comorbid anxiety or depression. Alcohol dependence was the most common substance use disorder among those that met criteria for both anxiety and depression. The 2007 NSMHWB data also showed that people with PTSD are disproportionately affected by alcohol use disorders, with a 3.9 times higher prevalence of alcohol use disorder in people with PTSD than in those without PTSD.

The prevalence of dual diagnosis among those receiving treatment is even higher than the general population prevalence. For instance, an analysis of inpatients of Australia's first older adult specific alcohol and other drug treatment service found that 89 per cent of inpatients had at least one comorbid mental disorder. Similarly, there are high rates of comorbid alcohol use disorders among those receiving treatment for severe mental disorders. For instance, data from the 2010 Australian National Psychosis Survey found that 49.8 per cent of survey respondents with a psychotic disorder requiring treatment also had a lifetime history of alcohol abuse or dependence. Si

## 2.1.2 The issues are more severe and treatment more challenging in people with comorbid issues

People with co-occurring mental and alcohol use disorders typically have more severe disease than those with only one disorder, treatment is frequently more complex<sup>54,55</sup> more expensive,<sup>56</sup> requiring more treatment sessions, and treatment outcomes are typically worse with relapse more likely.<sup>57</sup> There is no Australian data on the extent to which comorbidity increases healthcare costs relative to having only a single alcohol use or mental disorder. However, an American study showed that having a dual diagnosis of an alcohol use disorder and depression was associated with more inpatient, outpatient and total healthcare costs than having only an alcohol use disorder.<sup>58</sup>

<sup>&</sup>lt;sup>a</sup> Risky drinking was defined by the National Health Survey 2014-15 as being average alcohol consumption of more than two standard drinks per day over the past year.

<sup>&</sup>lt;sup>b</sup> Data from 2007 National Survey of Mental Health and Wellbeing is the most up-to-date Australian data on alcohol use disorders and mental health disorders as the survey has not been funded since this time.

<sup>&</sup>lt;sup>c</sup> Mental health disorders examined included affective disorders, anxiety disorder and drug use disorders.

In young Australian adults, dual diagnosis has been associated with the existence of more externalising behaviour problems such as intrusive behaviours, aggression and delinquency.<sup>59</sup> This may exacerbate the severity of the alcohol use disorder and make progression to dependence more likely, lower the likelihood of recovery from either condition, and increase the risk of violence and justice system involvement.

## 2.1.3 Other people's alcohol consumption has significant negative mental health effects

Not only does one's own alcohol consumption have negative implications for mental health, so too does other peoples' alcohol consumption. Analysis of data from the Australian *Alcohol's Harm to Others* project clearly shows that having at least one heavy drinker within one's social circle of family, friends and co-workers is associated with a higher likelihood of being anxious or depressed and having mental ill-health.<sup>60</sup> This study of 2,622 randomly sampled Australians specifically showed that having an association with a problematic drinker<sup>a</sup> conferred a two-fold increase in the likelihood of anxiety or depression and mental ill-health compared to someone without a problematic drinker in their life. The mental health impacts are most significant when the problematic drinker is one's partner, with 42.4 per cent of such people reporting depression or anxiety and 22.3 per cent reporting mental ill-health. Of people with a close family member with an alcohol use disorder and depression, 35.1 per cent had depression or anxiety and 11.8 per cent had mental ill-health. Of people with an extended family member with an alcohol use disorder, 43 per cent had depression or anxiety and 12.5 per cent reported mental ill-health.

Furthermore, Australian data from the *Gender and Alcohol's Harm to Others* project shows that the mental health effects of a harmful, heavy drinking partner are particularly significant for women.<sup>61</sup> Australian data from this study showed that 44 per cent of those women with a heavy drinking spouse reported at least moderate anxiety or depression, significantly higher than the 22 per cent of those with a partner who did not drink heavily. Australian women with a heavy drinking partner were significantly less satisfied with their life as a whole, compared to those whose partner was not a heavy drinker.

## 2.1.4 Comorbidity increases the likelihood of being a victim of intimate partner violence

Alcohol use and mental disorders are commonly associated with intimate partner violence (IVP) in Australia. The 2005 *Australian Personal Safety Survey* estimated that alcohol is involved in 50 per cent of all partner violence and 73 per cent of all physical assaults perpetrated by a partner.<sup>62</sup> A more recent Australian study showed that having a mental disorder is associated with an increased likelihood of being a victim of psychological, physical and severe IPV.<sup>63</sup> Importantly, this study showed that having comorbid mental and substance use disorders (including alcohol) increased the likelihood of experiencing either psychological or physical IPV over and above the likelihood with a single disorder.

There are also clear mental health consequences from witnessing parental experiences of IPV. Adolescent children exposed to parental experiences of IPV were more likely to experience alcohol use disorders as young adults, as well as anxiety, nicotine, and cannabis disorders.<sup>64</sup> Females were more likely than males to experience alcohol use disorders and depressive disorders after exposure

<sup>&</sup>lt;sup>a</sup> The main focus of this study was the impact of the respondents' relationships with heavy and problematic drinkers on their mental health. Respondent's self-identified individuals in their lives that they considered to be a heavy drinker. Respondents also answered if that person's drinking had negatively affected on them in the previous 12 months ("problematic drinkers").

to IPV during adolescence. The authors in this study point out that the adolescents were not copying or learning alcohol and drug use behaviours from their parents but rather self-medicating with alcohol and other substances to cope with exposure to the traumatic experience of witnessing IPV.

It is clear from the Coronial inquest into the deaths of thirteen children and young people in the Kimberley, WA that IPV was a feature in the lives of all of those who died. Many of the children and teenagers witnessed horrific acts of violence between family members closest to them.<sup>65</sup>

### 2.2 Policy implications

### 2.2.1 Pricing

Policy measures that aim to control and reduce alcohol availability and curb harmful alcohol consumption can help to reduce the burden of disease due to mental disorders experienced not only by the drinker themselves, but by those whose mental health is affected by another person's drinking. The most important aspect of alcohol availability to address is price, through alcohol taxation reform. Because people with comorbid mental illness and problematic alcohol consumption are more likely to be socioeconomically disadvantaged, they are likely to be particularly sensitive to strategies that reduce alcohol availability by raising the price of alcohol through alcohol taxation reform. <sup>66,67</sup> As outlined in section one, the Productivity Commission have already demonstrated support for alcohol taxation reform and a move to volumetric taxation across all alcoholic beverages. Such reform will help to raise much needed revenue that can be invested in improving mental health service delivery.

#### **Recommendation:**

See recommendation 4 above

### 2.2.2 Public awareness

In addition to alcohol taxation reform, awareness raising about the high levels of comorbidity between alcohol consumption, suicide and poor mental health is needed. To achieve this, FARE recommends investment in a national public education campaign about the long-term health harms of alcohol consumption. This would include education about these mental health implications. There has never been a national campaign on this subject, and it could be funded by the revenue generated through alcohol taxation reform.

#### **Recommendation:**

FARE makes the following recommendation to the Productivity Commission to:

9. Establish and fund a national public education campaign to raise awareness on the long-term health harms of alcohol consumption and the contribution of alcohol to mental ill-health.

### 2.2.3 Improved linkages in service delivery

Priority Area 3 of the Fourth National Mental Health Plan 2009-2014 outlined the need for a nationally agreed planning framework for mental health services. This section outlined an action to "Improve linkages and coordination between mental health, alcohol and other drug, and primary care services to facilitate earlier identification of and improved referral and treatment for mental and physical health problems."

FARE contends that this action is still required.

#### Priority Area 3 outlines that:

"Many people who seek help for mental health problems or for problems associated with use of alcohol or other drugs will do so through their general practitioner. Often these problems will occur together and may be complicated by poor physical health. The impact of misuse of prescribed drugs as well as use of illicit substances needs to be recognised. The impact of combined mental health problems and substance use may require referral from primary care to more specialist assessment, treatment or support. However, the provision of services varies and is often poorly coordinated across and within drug and alcohol services, mental health services, and primary care.

The different service sectors do not always work well together, or have an understanding of roles, responsibilities or limitations. Developing better reciprocal understanding and awareness will support better joint service development and delivery that addresses the physical and mental health needs. This will also support a 'no wrong door' approach, and lessen the frustration experienced by consumers, their carers and families."<sup>68</sup>

This situation has not improved since the release of the *Fourth National Mental Health Plan* and thus this action is restated as a recommendation in this submission. The lack of coordinated and consistent implementation of these actions is a significant failing and a significant reason why past reforms have had limited success.

FARE notes that (as outlined in the *Fourth National Mental Health Plan*) this action requires work across all governments and acute health, community mental health, community support, income support, housing, Indigenous, primary care, alcohol and other drug services, and justice programs. Implementing this action will improve mental health across Australia, as people will receive the services they require.

The New Zealand *Government Inquiry into Mental Health and Addiction* recommended the need to significantly increase access to publicly funded mental health and addiction services for people with mild to moderate, and moderate to severe, mental health and addiction needs.<sup>69</sup> These people make up the bulk of people experiencing issues but have the least access to services, as existing services only cater for those in more emergent or crisis situations. This expansion of services would contribute to prevention efforts by assisting people before the situation developed further.

Another recommendation from the New Zealand Inquiry was the establishment of a target (performance indicator) for access to mental health and addiction services to cover the full spectrum of need. It was recommended that the Government commit to a staged expansion plan and include talk therapies, alcohol and other drug services, and culturally appropriate services. A further recommendation was that regular mental health and addiction surveys be undertaken on a national level. FARE commends all of these recommendations and posits that these are also applicable to the Australian situation.

The New Zealand Inquiry also recommended the need to transform primary care, as it is critical to the foundational responses to mental health issues and alcohol and other drug issues. FARE supports this and recommends a similar review for Australia. In 2015, in response to the issue of ice in the community the Australian Government moved the commissioning of alcohol and other drug services to PHNs through its *Drug and Alcohol Program*. This was a significant departure to previous funding arrangements, which was through treatment grants provided through the Australian Government Department of Health.<sup>70</sup> There has been no review of this transition in funding arrangements and whether the services commissioned are meeting the needs of the local communities and their links to other services such as mental health, housing, employment, and family violence. Data on comorbid mental health conditions is not collected within the Alcohol and Other Drug Treatment Services National Minimum Data Set so it impossible to get true estimates of the issue.

#### **Recommendations:**

FARE makes the following recommendations to the Productivity Commission to:

- 10. Improve the linkages and coordination between mental health, alcohol and other drug, and primary care services to facilitate earlier identification of, and improved referral and treatment for, mental and physical health problems.
- 11. Review the commissioning of alcohol and other drug treatment Review the commissioning of alcohol and other drug treatment services by Primary Health Networks to establish if these are meeting clients' needs and recognising comorbid issues.
- 12. Include the collection of mental disorders on the Alcohol and Other Drug Treatment Services National Minimum Data Set. Undertake regular surveys of the Australian population for addiction and mental health issues.

## 3. Housing and homelessness and social determinants

The Australian Institute of Health and Welfare publication *Alcohol, tobacco and other drugs in Australia* highlights the strong link between alcohol and other drug use and homelessness. Nine per cent of people presenting to specialist homelessness services report that they are experiencing problematic drug or alcohol use. Alcohol was the primary drug of concern.

In Australia, close to 5,000 people who presented in 2016-17 to specialist homelessness services (18 per cent) stated that they were leaving or had recently left an alcohol and drug treatment rehabilitation facility. The Northern Territory had the highest rates of this with 42.7 per 10,000 population, followed by Tasmania (16.3 per 10,000) and the ACT (15.4 per 10,000).<sup>71</sup>

The Journeys Home research, a longitudinal national sample of individuals exposed to high levels of housing insecurity, outlined that current circumstances of the individual are critical in understanding who is homeless and why. Journeys Home found that the prevalence of homelessness is higher for those:

- · experiencing recent family breakdown
- with current health and mental health problems
- currently unemployed
- using alcohol or illicit substances
- who have been recently incarcerated.

It also noted that homelessness and recent experiences of physical and sexual violence are also closely related.<sup>72</sup>

There is a significant overlap between people experiencing homelessness (or at risk of) and also experiencing mental ill-health and/or alcohol and other drug problems. This is not currently considered within the Issues Paper.

Homelessness and housing distress are part of the social determinants that impact on individuals' lives. The social determinants of health are the conditions in which people are born, grow, live, work and age. These social factors impact on our health and wellbeing and are shaped by the distribution of money, power and resources. They include, but are not limited to, employment, education, housing, climate, race, service provision, and access. The social determinants of health exacerbate comorbidities and result in poor health outcomes being disproportionately experienced by our most vulnerable populations. It is essential that different portfolios and levels of government work together to create environments conducive to health, tackling the social and economic disadvantages which have proven links to chronic conditions including mental health.

The New Zealand Government Inquiry into Mental Health and Addiction notes the need to:

"Take a whole-of-government approach to wellbeing to tackle social determinants and support prevention activities that impact on multiple outcomes, not only mental health and addiction. Despite the substantial benefits of focusing on prevention and promoting wellbeing, especially early in life, the balance of resources has not shifted to prevention and long-term investment in our future. Multiple agencies are engaged in fragmented and uncoordinated activities that target similar outcomes." <sup>74</sup>

The inquiry recommends establishing a social wellbeing agency to provide a clear locus of responsibility within central government for social wellbeing. The situation in Australia mirrors that of New Zealand. However, Australia did have an agency that was responsible for prevention — The Australian National Preventive Health Agency. It is a significant shame that this agency was disbanded in 2014 as it could have been the catalyst and coordinating body for this important work.

## 3.1 Policy implications

Make it clear that social determinants are broader than housing and any recommendations around housing must consider all the social determinants.

It is important that further work is done to ensure that those leaving an alcohol and drug treatment rehabilitation facility are not exited to homelessness. This is particularly in light of the large number of people who attended at specialist homelessness services in 2016-17 after attendance at an alcohol and drug treatment rehabilitation facility. This work should extend to include individuals leaving mental health treatment facilities as well. It is important that individuals are given the best chance to continue on their path of recovery when they leave a treatment facility, and exiting into insecure housing, or homelessness, puts individuals at risk of relapse.

#### **Recommendations**

FARE makes the following recommendations to the Productivity Commission to:

- 13. Develop a strategy to ensure that there are no exits into homelessness from alcohol and other drug services and mental health, treatment facilities, including hospitals.
- 14. Invest in appropriate and secure housing, including transitional housing, to provide sufficient supply for those exiting treatment facilities.

15. Consider establishing a social wellbeing agency to tackle social determinants of health through a whole-of-government lens. At minimum, require the social determinants of health and their links with mental health are considered in mental health strategies.

# 4. Fetal Alcohol Spectrum Disorder: the social and economics on society

The Issues Paper outlines that the Productivity Commission is interested to know where the gaps are in current programs and supports. FARE contends that FASD should be considered a gap. FASD is one of the adverse outcomes that is associated with alcohol consumption during pregnancy. Others include stillbirth, miscarriage, and low birth weights.

Fetal exposure to alcohol can cause a range of structural brain abnormalities, neurological problems, and neurodevelopmental deficits. These can occur at any stage during the pregnancy. While FASD is not a mental illness or disorder, people with FASD have higher rates of mental ill-health and experience higher rates of suicide completion.

### 4.1 FASD should be considered as neurological disability

Ten domains of neurodevelopment have been identified as those that are affected by alcohol exposure. These are: brain structure/neurology, motor skills, cognition, language, academic achievement, memory, attention, executive function, impulse control, hyperactivity, affect regulation adaptive behaviour, and social skills or social communication.<sup>75</sup>

A diagnosis of FASD requires evidence of severe impairment of brain function in at least three of these ten domains. The pattern of impairment in individuals is complex and diverse; differences are due to the timing of alcohol exposure, level of exposure as well as other genetic, maternal and environmental factors. FASD is also associated with a wide range of other developmental and behavioural conditions such as language disorders, attention deficit hyperactivity disorder (ADHD), anxiety disorders, Autism Spectrum Disorder as well as chromosomal abnormalities and congenital malformations.

People with FASD have been shown to have deficits in auditory processing, and as a consequence may be slower to process information and understand the information and instructions given compared to the general population.

In Australia, FASD has often been classed as an intellectual disability. A critical evidence review by the Telethon Kids Institute prepared for the National Disability Insurance Agency outlines that IQ scores are often used to determine eligibility for services or supports. However, IQ is not a good indicator of impaired functioning; individuals with FASD may have an average IQ, but have issues with adaptive functioning. This is their ability to apply knowledge and skills to different environments, conform with social standards such as school or in work environments and apply these skills in an adaptive manner, without excessive guidance and direction.<sup>76</sup>

Additionally, research on other variables demonstrates that lower education status and low socioeconomic status are associated with lower intellectual ability in children with FASD. Research of children from predominantly middle-class settings with mild to moderate prenatal alcohol exposure do not exhibit intellectual deficits.

Currently, the National Disability Insurance Scheme (NDIS) only recognises Fetal Alcohol Syndrome<sup>a</sup> under 'Congenital conditions - cases where malformations cannot be corrected by surgery or other treatment and result in permanent impairment.' Numerous organisations, including FARE, have made submissions to the National Disability Insurance Agency for this to be changed in order to recognise FASD and recognise it as a neurodevelopmental disability – to date these requests have not been adopted.<sup>77</sup>

The *Fifth National Mental Health and Suicide Prevention Plan* does not recognise FASD specifically. Additionally, it does not define intellectual disabilities. Inclusion Australia, the national representative body for Australians with intellectual disability (formerly the National Council on Intellectual Disability), defines intellectual disability as being a disability with significant limitations in both functioning and in adaptive behaviour, which covers many everyday social and practical skills.<sup>78</sup> From this definition, it is clear to see why FASD is often considered as an intellectual disability.

The *Fifth National Mental Health Plan* does note that people with intellectual disability are at least two to three times more likely to have a mental illness than the general population. However, people with intellectual disability experience significantly lower rates of treatment for their mental health problems compared with the general population. Mental illness in people with intellectual disability is often overlooked for a range of reasons such as the individual being unable to describe their experience or their behaviours being misattributed to their intellectual disability.<sup>79</sup>

## 4.1.1 Secondary effects of FASD, including mental disorders and alcohol and other drug problems, are due to the lack of recognition of FASD in the community

Far too frequently individuals with FASD are not recognised or able to receive a diagnosis. The literature review by the Telethon Kids Institute in 2015 outlines that:

"Commonly, the child affected by FASD first comes to the attention of health services within an educational environment, when they are identified as noticeably functioning at lower levels than their peers. Up to this point, affected children may have masked their neurocognitive deficits in social situations by being affable and chatty. However, attention deficits will emerge as the tasks children are required to perform become more complex. Other disruptions to cognitive functions vary, but can include diminished intellectual functioning, slower speed of information processing; deficient cognitive set shifting ineffective problem solving strategies; and, non-verbal and verbal fluency difficulties. Thus, although many of the social behaviours in children with FASD may seem acceptable at a young age, over time these behaviours become increasingly inappropriate and markedly different from peers. Further, as social interactions become more complex, requiring higher level communication skills, challenges in social communication and adaptive functioning emerge."80

When these primary disabilities are misunderstood, misinterpreted or misdiagnosed this can lead to the individual developing secondary effects. These secondary effects include mental health problems, drug and alcohol dependency, and contact with the criminal justice system. These are described as having being caused by the: "constant misunderstanding of primary disabilities and a poor fit between the individual's needs, developmental age and the environment." People with FASD are vulnerable to mental disorders and are at risk for abuse and neglect over their lifetime. A cohort study of individuals with FASD in the United States found that at 21 years of age, 90 per cent had mental health

22: SUBMISSION: PRODUCTIVITY COMMISSION: THE SOCIAL AND ECONOMIC BENEFITS OF IMPROVING MENTAL HEALTH

<sup>&</sup>lt;sup>a</sup> Previous diagnostic criteria for FASD included: Fetal Alcohol Syndrome (FAS), Partial-FAS and Alcohol-Related Neurodevelopmental Disorder and Alcohol-Related Birth defects. These diagnostic terms changed in 2016 with the release of the Australian FASD Diagnostic Tool.

problems, 60 per cent had been in contact with the justice system, 60 per cent had disrupted education, 40 per cent had substance abuse issues and fewer than 10 per cent lived or worked independently. Alcohol dependence has been reported in 83 per cent of the cohort.<sup>82</sup>

A recent study in Western Australia at Banksia Hill Youth Detention centre, undertaken in 2016 to 2016, found that out the 99 young people (aged 10 to 17 years old) who completed a full FASD assessment, 89 per cent (n=88) had at least one domain of severe neurodevelopmental impairment, and 36 were diagnosed with FASD. This equalled a prevalence rate of 36 per cent. Of these young people with FASD, 86 per cent had severe impairment in academic achievement; 72 per cent had severe attention impairments; 78 per cent had impaired executive functioning and/or language (69 per cent) domains. In addition, these young people with FASD had severe impairments with memory (56 per cent), motor skills (50 per cent) and cognition (36 per cent).<sup>83</sup>

Only two young people had been diagnosed with FASD prior to participation in this study. This demonstrates the huge gap in diagnosis and lack of recognition of FASD by multiple professional disciplines, health, education, child protection, police and justice.

The secondary effects of FASD are preventable and early childhood interventions are known to mitigate the impacts of FASD across the person's life. There also needs to be consistent education campaigns that outline the risks of alcohol consumption during pregnancy. As well as reducing the prevalence of FASD, these campaigns can increase awareness of FASD among professionals in sectors such as health, education, child protection and foster care, criminal justice and legal system and health professionals.

### 4.1.2 People with FASD have higher prevalence of mental disorder comorbidity

There is international evidence that people with FASD show a higher prevalence of some mental disorder comorbidities than the general population. For instance, a systematic review and meta-analysis of 127 international studies examined the pooled prevalence of comorbidities in people with FASD.<sup>84</sup> The review showed that people with FASD were disproportionately affected by conduct disorder, ADHD, intellectual disabilities, and lifetime alcohol or drug dependence. Specifically compared to the prevalence in the US general population, people with FASD had a ten-fold higher pooled prevalence of conduct disorder, a 97 fold higher prevalence of intellectual disabilities, an eightfold higher prevalence of ADHD, a 21 fold higher prevalence of lifetime drug dependence and a four-fold higher prevalence of alcohol dependence. Similarly, a study of mental health comorbidities in adults with FASD conducted in the United States showed that 72 per cent of the 25 adults studied had received psychiatric treatment of some kind, 60 per cent had alcohol or drug dependence, 44 per cent had depression, 40 per cent had some form of psychotic disorder and 52 per cent had some form of personality disorder.<sup>85</sup>

Because there is limited data on the prevalence of FASD in the Australian context, determining the extent of mental disorder comorbidities in this population is challenging. However, one study has attempted to examine mental disorder comorbidities in a small study of children with FASD enrolled in a multidisciplinary diagnostic clinic. This study of 31 families showed some mental disorder comorbidities are even evident in children with FASD with 61 per cent of the children with FASD also having ADHD, 22.5 per cent having a comorbid intellectual disability, and 12.9 per cent with comorbid Autism Spectrum Disorder.<sup>86</sup>

### 4.1.3 People with FASD are disproportionately at risk of suicide

Epidemiological evidence from the US shows that people with FASD are disproportionately at risk of suicide attempt or completed suicide, compared to the general population. Recent research exploring suicidal ideation and attempt in adolescents with FASD found an almost two-fold higher prevalence of ideation in adolescence with FASD (35.2 per cent) compared to their general population counterparts (17.2 per cent). There was also a much higher rate of serious suicide attempt in adolescents with FASD (13 per cent) than general population adolescents (2.4 per cent).<sup>87</sup>

There is no Australian data on the prevalence of suicidal ideation, attempts and completed suicides among people with FASD. However, internationally it is clear that people with FASD are disproportionately affected by mental disorder comorbidities as outlined in section two of this submission. There are also deficits experienced by people with FASD that increase their risk of suicidality such as having a learning disability, problems with executive functioning, greater impulsivity, more intense experiences of emotion and more social isolation.<sup>88</sup> People with FASD may also be less likely to be employed or in a relationship and have lower levels of education and social support more generally, hence they tend to lack many of the factors that can protect against suicide.

A study on the life expectancy of people with of FASD found that death by external causes (44 per cent) was the leading cause of death, and of this, suicide accounted for 15 per cent of deaths. The life expectancy at birth was 34 years.<sup>89</sup> It has been calculated that in the US, adults with FASD are five times more likely to attempt suicide than those in the general population.<sup>90</sup>

Most recently the Coroner's report on the inquest into the deaths of thirteen children and young people in the Kimberley region of Western Australia found that FASD was likely to have played a part these suicides. The Coroner stated that:

"I have not found that any of the children and young persons had FASD but a number of them were clearly vulnerable to the development of this disorder. Further, whilst none had been diagnosed with FASD, the circumstantial evidence would suggest that a number of them were likely to have been on the spectrum for FASD."91

The Coroner recommended that FASD as a neurodevelopmental impairment be recognised with the NDIS, as well as several other recommendations related to FASD. These recommendations included:

- Universal screening for FASD during infant health assessments and upon entering the child protection system or justice system or at risk of FASD.
- That consideration be given to additional funding for primary care services in areas with a high burden of neurodevelopmental impairment to increase diagnostic capacity for complex conditions including FASD, and to respond to the diagnosis by way of therapeutic services for children and young people diagnosed with FASD.
- That education campaigns be conducted in all secondary schools in Western Australia to alert students to (i) the dangers of consuming alcohol during pregnancy and (ii) the prevalence of FASD (with a culturally relevant education campaign for Aboriginal children).

### 4.2 Policy implications

The costs of alcohol misuse to Australian families and in particular children, is often overlooked. Each year, more than a million children (22 per cent of all Australian children) are affected in by the drinking of others. For individuals with FASD it is a debilitating lifelong condition that places significant burdens on the healthcare and judicial systems.

FASD requires a whole-of-government response. FASD crosses government departments and jurisdictional levels. People with FASD experience mental disorders, alcohol and drug use disorders, disrupted schooling and involvement with the criminal justice system at higher rates than the general population. In addition, people with FASD experience problems with day-to-day living, such as managing money and sustaining regular employment. As a result, the majority of adults with FASD may not be able to live independently.<sup>93</sup>

However, FASD can be prevented. Fundamental to this prevention is the reduction of harmful consumption of alcohol by the general population, and in particular by women during pregnancy. Prevention activities need to target the whole population to raise awareness of the potential risks associated with alcohol consumption during pregnancy and create a supportive environment for women who are pregnant or planning pregnancy to be alcohol free during this time. This should be done through public education campaigns and mandatory health warning labels on all alcohol products. In addition, targeted prevention initiatives are needed to support women most at risk of having a child or children with FASD.

Pregnancy is a critical window of opportunity and health professionals are key in preventing FASD. Women are often willing to make changes to their lifestyle, diet and alcohol consumption if advised by their health professional to do so.<sup>94</sup> It is therefore imperative that all health professionals are able to ask and advise women about their alcohol consumption at any stage of their lives. FASD is a good example of where adopting a social determinants approach to health would result in a reduction in the number of new cases and help support those who are affected.

FARE has developed and coordinated two programs to reduce drinking during pregnancy. The *Pregnant Pause* campaign encourages peer support for abstention from alcohol during pregnancy, and the *Women Want to Know* campaign which targets health professionals to ensure they are providing women with advice that is consistent with the National Health and Medical Research Council's Alcohol Guidelines. *Women Want to Know* and *Pregnant Pause* have been successfully implemented for a number of years. Unfortunately, funding for both projects has recently ended and further funding is required to maximise the effectiveness of these campaigns and reduce the harm caused by alcohol to children in Australia.

#### **Recommendations:**

FARE makes the following recommendations to the Productivity Commission to:

- 16. Recommend that FASD be listed as a neurological disability rather than an intellectual disability in the *National Mental Health Plan* and recognised as such by the Productivity Commission.
  - Adequate recognition of FASD as a neurological disability would allow for the appropriate early intervention in childhood thereby lessening the impact of secondary effects of FASD.
- 17. Recognise FASD, rather than Fetal Alcohol Syndrome, in the National Disability Insurance Scheme and by the National Disability Insurance Agency, with appropriate support provided to support people with FASD.

- The correct diagnostic terminology for FASD should be used in Australia, this broadening would allow appropriate early intervention services to be provided and thus lessen the impact of secondary effects of FASD.
- 18. A range of early intervention programs for children with FASD or suspected FASD are implemented, funded and evaluated across Australia to determine which are effective.
- 19. Training on FASD, how to recognise signs of FASD and where to refer for assessment, be developed and rolled out across Australia to professionals working in the fields of: education, police, justice, child protection and justice systems; both juvenile and adult.
- 20. Continue funding the successful awareness campaigns, such as FARE's *Women Want to Know* and *Pregnant Pause* campaigns, to continue to educate health professionals about the risks of alcohol consumption during pregnancy and support pregnant women to be alcohol free.
- 21. Effective mandatory pregnancy warning labels by implemented across all alcohol products in Australia to ensure that the women receive consistent messages about the risks of alcohol consumption during pregnancy.

## **Conclusion**

Alcohol use by individuals, as well as at a population level, has impacts on mental health and suicide. Improvements in the mental health of the nation could be made by the adoption of the recommendations contained in this submission. Actions to restrict the availability of alcohol will contribute to lower rates of suicide and improve mental health at the population level.

It is crucial that alcohol use by Aboriginal and Torres Strait Islander peoples be given dedicated funding, as well as recognition given to ongoing issues of intergenerational trauma, family breakdown and loss of culture. Specific support also needs to be given to those who are affected by FASD, and its status as an intellectual disability should be recognised. Work to prevent the occurrence of FASD is also of critical importance.

To improve overall wellbeing of the community it is not enough to have treatment programs for problems when they manifest. Instead careful attention must be given to preventive strategies that can reduce the burden of mental ill-health and suicide at a population level. Reduction in alcohol consumption, especially among vulnerable populations, is one preventive measure that would provide a cost-effective strategy to improve Australia's mental health.

## References

<sup>1</sup> New Zealand Government (2018). *He Ara Oranga – Report of the Government Inquiry into Mental Health and Addiction*. Retrieved from <a href="https://www.mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf">https://www.mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf</a>

- <sup>3</sup> Fogliani, R. V. C. (2019). *Inquest into the deaths of: Thirteen children and young persons in the Kimberley region, Western Australia*. Retrieved from <a href="https://www.coronerscourt.wa.gov.au/\_files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf">https://www.coronerscourt.wa.gov.au/\_files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf</a>
- <sup>4</sup> Witt, K. and Lubman, D.I. (2018). Effective suicide prevention: where is the discussion on alcohol?. *Australian and New Zealand Journal of Psychiatry*, 52, 6, 507-508.
- <sup>5</sup> Cornelius, J. R., Clark, D. B., Salloum, I. M., Bukstein, O. G., & Kelly, T. M. (2004). *Interventions in suicidal alcoholics. Alcoholism: Clinical and Experimental Research*, 28, 89S-96S.
- <sup>6</sup> Witt, K. and Lubman, D.I. (2018). Effective suicide prevention: where is the discussion on alcohol?. *Australian* and *New Zealand Journal of Psychiatry*, 52, 6, 507-508.
- <sup>7</sup> Witt, K. and Lubman, D.I. (2018). Effective suicide prevention: where is the discussion on alcohol?. *Australian and New Zealand Journal of Psychiatry*, 52, 6, 507-508.
- <sup>8</sup> Darke, S., Duflou, J., & Torok, M. (2009). Toxicology and circumstances of completed suicide by means other than overdose. *Journal of Forensic Science*, 54, 2, 490-494.
- <sup>9</sup> Darke, S., Duflou, J, Torok, M. & Prolov, T. (2013). Characteristics, circumstances and toxicology of sudden or unnatural deaths involving very high-range alcohol concentrations. Addiction, 108, 1411-1417.
- <sup>10</sup> Darke, S., Duflou, J., Torok, M. & Prolov, T. (2013). Characteristics, circumstances and toxicology of sudden or unnatural deaths involving very high-range alcohol concentrations. Addiction, 108, 1411-1417.
- <sup>11</sup> National Institute of Alcohol Abuse and Alcoholism (2018). *Understanding the dangers of alcohol overdose*. Retrieved 19 March, 2019, from

### https://pubs.niaaa.nih.gov/publications/AlcoholOverdoseFactsheet/Overdosefact.htm

- <sup>12</sup> Darke, S., Duflou, J., Torok, M. & Prolov, T. (2013). Characteristics, circumstances and toxicology of sudden or unnatural deaths involving very high-range alcohol concentrations. Addiction, 108, 1411-1417.
- <sup>13</sup> Darke, S., Duflou, J., & Torok, M. (2009). Toxicology and circumstances of completed suicide by means other than overdose. *Journal of Forensic Science*, 54, 2, 490-494.
- <sup>14</sup> Darke, S., Duflou, J., Torok, M. & Prolov, T. (2013). Characteristics, circumstances and toxicology of sudden or unnatural deaths involving very high-range alcohol concentrations. *Addiction*, 108, 1411-1417.
- <sup>15</sup> Borges, G., Bagge, C.L., Cherpitel, C.J., Conner, K.R., Orozco, R. and Rossow, I. (2017). A meta-analysis of acute use of alcohol and the risk of suicide attempt. *Psychological Medicine*, 47, 949-957.
- <sup>16</sup> Kolves, K., Draper, B.M., Snowdon, J., De Leo, D. (2017). *Alcohol use disorders and suicide: Results from a psychological autopsy study in Australia,* Retrieved from <a href="https://www.ncbi.nlm.nih.gov/pubmed/28965653">https://www.ncbi.nlm.nih.gov/pubmed/28965653</a>
- <sup>17</sup> De Leo, D., Draper, B., Snowdon, J., & Kolves, K. (2013). Suicides in older adults: A case-control psychological autopsy study in Australia. *Journal of Psychiatric Research*, 47, 980-988.
- <sup>18</sup> Nortsrom, T. & Rossow, I. (2016). Alcohol consumption as a risk factor for suicidal behaviour: a systematic review of associations at the individual and population level. *Archives of Suicide Research*, 20, 4, 489-506.
- <sup>19</sup> Senate Community Affairs References Committee (2018). Accessibility and quality of mental health services in rural and remote Australia. Retrieved from
- https://www.aph.gov.au/Parliamentary Business/Committees/Senate/Community Affairs/MentalHealthServices/Report
- <sup>20</sup> Senate Community Affairs References Committee (2018). Accessibility and quality of mental health services in rural and remote Australia. Retrieved from
- https://www.aph.gov.au/Parliamentary\_Business/Committees/Senate/Community\_Affairs/MentalHealthServices/Report Page 124.
- <sup>21</sup> Senate Community Affairs References Committee (2018). Accessibility and quality of mental health services in rural and remote Australia. Retrieved from
- https://www.aph.gov.au/Parliamentary Business/Committees/Senate/Community Affairs/MentalHealthServices/Report

<sup>&</sup>lt;sup>2</sup> New Zealand Government (2018). *He Ara Oranga – Report of the Government Inquiry into Mental Health and Addiction*. Retrieved from <a href="https://www.mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf">https://www.mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf</a>

- <sup>23</sup> Fogliani, R. (2019). Inquest into the deaths of: Thirteen children and young persons in the Kimberley region, Western Australia. *Coroner's report*. <a href="https://www.coronerscourt.wa.gov.au/">https://www.coronerscourt.wa.gov.au/</a> files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf, 147–197.
- <sup>24</sup> Fogliani, R. (2019). Inquest into the deaths of: Thirteen children and young persons in the Kimberley region, Western Australia. Coroner's report. <a href="https://www.coronerscourt.wa.gov.au/\_files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf">https://www.coronerscourt.wa.gov.au/\_files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf</a>
- <sup>25</sup> Fogliani, R. (2019). Inquest into the deaths of: Thirteen children and young persons in the Kimberley region, Western Australia. Coroner's report. <a href="https://www.coronerscourt.wa.gov.au/">https://www.coronerscourt.wa.gov.au/</a> files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf, 10.
- <sup>26</sup> Fogliani, R. (2019). Inquest into the deaths of: Thirteen children and young persons in the Kimberley region, Western Australia. Coroner's report. <a href="https://www.coronerscourt.wa.gov.au/files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf">https://www.coronerscourt.wa.gov.au/files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf</a>, 18.
- <sup>27</sup> New Zealand Government (2018). *He Ara Oranga Report of the Government Inquiry into Mental Health and Addiction*. Retrieved from <a href="https://www.mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf">https://www.mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf</a>, 9.
- <sup>28</sup> Sherk, A., Stockwell, T., Chikritzhs, T., Andreasson, S., Angus, C., Gripenberg, J., Holder, H., Holmes, J., Makela, P., Mills, M., Norstrom, T., Rasmstedt, M., & Woods, J. (2018). Alcohol consumption and the physical availability of take-away alcohol: Systematic reviews and meta-analyses of the days and hours of sale and outlet density. *Journal of studies of alcohol and drugs*. 79, 1, 58-67.
- <sup>29</sup> Callinan, S., Room, R., Livingston, M. & Jiang, H. (2015). Who purchases low-cost alcohol in Australia? *Alcohol and Alcoholism* 50(6), 647-653. doi: 10.1093/alcalc/agv066;
- <sup>30</sup> Holmes, J., Meng, Y., Meier, P.S., Brennan, A., Angus, C., Campbell-Burton, A. and Purshouse, R.C. (2014). Effects of minimum unit pricing for alcohol on different income and socioeconomic groups: a modelling study. *Lancet*, 383, 1655-1664. doi: 10.1016/S0140-6736(13)62417-4;
- <sup>31</sup> Vandenberg, B. & Sharma, A. (2016). Are alcohol taxation and pricing policies regressive? Product-level effects of a specific tax and a minimum unit price for alcohol. *Alcohol and Alcoholism*, 51(4), 493-502. doi: 10.1093/alcalc/agv133.
- <sup>32</sup> Distilled Spirits Industry Council of Australia (DSICA). (2012). Pre-budget submission 2012-13. Victoria: DSICA. Retrieved from
- http://www.dsica.com.au/Library/PageContentFiles/7e8adb48-141d-498e-9fbb-0f1c49c2cb1d/DSICA 2012 13 Pre Budget Submission Web Version.pdf
- <sup>33</sup> Brewers Association. (2012). Brewers Association supports ANPHA decision not to introduce minimum pricing. Retrieved from <a href="http://www.brewers.org.au/wp-content/uploads/2012/11/Brewers-Association-Media-Release-Brewers-Supports-ANPHA-Decision-not-to-introduce-Minimum-Pricing.pdf">http://www.brewers.org.au/wp-content/uploads/2012/11/Brewers-Association-Media-Release-Brewers-Supports-ANPHA-Decision-not-to-introduce-Minimum-Pricing.pdf</a>
- <sup>34</sup> Treasury Wine Estates. (2011). Tax reform for a sustainable Australian wine industry. Retrieved from http://www.treasury.gov.au/Policy-Topics/Taxation/Tax-Forum/Statements-and-Submissions/Submissions <sup>35</sup> IBISWorld. 2016. Wine production in Australia Industry Report C1214.
- <sup>36</sup> Productivity Commission. (2017). Shifting the Dial: 5 year productivity review. Retrieved from https://www.pc.gov.au/inquiries/completed/productivity-review/report
- <sup>37</sup> ACIL Allen Consulting. (2015). Alcohol tax reform: Economic modelling. Foundation for Alcohol Research and Education. Retrieved from http://fare.org.au/2015/09/alcohol-tax-reform-economic-modelling/
- <sup>38</sup> Productivity Commission (2017). Shifting the Dial: 5 Year Productivity Review, Report No. 84, 75.
- <sup>39</sup> Dudgeon, P., Milroy, J., Calma, T. Luxford, Y. Ring, I. Walker, R., Cox, A., Georgatos, G and Holland, C. (2016). Aboriginal and Torres Strait Islander Suicide Prevention Evaluation Project Report: Solutions that work: What the evidence and our people tell us. University of Western Australia, UWA.
- https://www.atsispep.sis.uwa.edu.au/ data/assets/pdf\_file/0006/2947299/ATSISPEP-Report-Final-Web.pdf do Dudgeon, P., Milroy, J., Calma, T. Luxford, Y. Ring, I. Walker, R., Cox, A., Georgatos, G and Holland, C. (2016). Solutions that work: What the evidence and our people tell us. *Aboriginal and Torres Strait Islander Suicide Prevention Evaluation Project Report*. Retrieved from
- https://www.atsispep.sis.uwa.edu.au/ data/assets/pdf file/0006/2947299/ATSISPEP-Report-Final-Web.pdf <sup>41</sup> Fogliani, R. (2019). Inquest into the deaths of: Thirteen children and young persons in the Kimberley region, Western Australia. Coroner's report. <a href="https://www.coronerscourt.wa.gov.au/">https://www.coronerscourt.wa.gov.au/</a> files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf

<sup>&</sup>lt;sup>22</sup> Fogliani, R. (2019). Inquest into the deaths of: Thirteen children and young persons in the Kimberley region, Western Australia. *Coroner's report*. <a href="https://www.coronerscourt.wa.gov.au/files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf">https://www.coronerscourt.wa.gov.au/files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf</a>

<sup>42</sup> Rehm, J. et al., (2017). The relationship between different dimensions of alcohol use and the burden of disease – an update, *Addiction*, 112, 968-1001.

- <sup>43</sup> Rehm J., Room R., Monteiro M., Gmel G., Graham K., Rehn N. et al. Alcohol use. In: Ezzati M., Lopez A. D., Rodgers A., Murray C. J. L., (2004). Comparative quantification of health risks: Global and regional burden of disease attributable to selected major risk factors. *World Health Organization*. 959-1109
- <sup>44</sup> Fergusson D. M., Boden J. M., Horwood L. J. (2009). Tests of causal links between alcohol abuse or dependence and major depression. *Arch Gen Psychiatry*, 66, 260–266.
- <sup>45</sup> Falk D. E., Yi H. Y., Hilton M. E. (2008). Age of onset and temporal sequencing of lifetime DSM-IV alcohol use disorders relative to comorbid mood and anxiety disorders. *Drug Alcohol Dependence*, 94, 234–245.
- <sup>46</sup> Forbes, M.K., Flanagan, J.C., Barrett, E.L., Crome, E., Baillie, A.J., Mills, K.L., & Teesson, M. (2015). Smoking, PTSD and alcohol use disorders in a nationally representative sample of Australian men and women. *Drug and Alcohol Dependence*. 156, 176-183.
- <sup>47</sup> Harris, B., Duggan., M., Batterham, P. Bartlem, K. Clinton-McHarg, T., Dunbar, J., Fehily, C., Lawerence, D., Morgan, M. and Rosenbaum, S. (2018). Australia's mental and physical health tracker: Background paper. *Australian health policy collaboration issues paper* no. 2018-02.
- <sup>48</sup> Teesson, M., Hall, W., Slade, T., Mills, K., Grove, R., Mewton, L., Baillie, A. & Haber, P. (2010). Prevalence and correlates of DSM-IV alcohol abuse and dependence in Australia: findings of the 2007 National Survey of Mental Health and Wellbeing. *Addiction* 105(12), 2085–2094.
- <sup>49</sup> Prior, K., Mills, K., Ross, J., & Teesson, M. (2017). Substance use disorders comorbid with mood and anxiety disorders in the Australian general population. *Drug and Alcohol Review*, 36, 317-324.
- <sup>50</sup> Prior, K., Mills, K., Ross, J., & Teesson, M. (2017). Substance use disorders comorbid with mood and anxiety disorders in the Australian general population. *Drug and Alcohol Review*, 36, 317-324.
- <sup>51</sup> Forbes, M.K., Flanagan, J.C., Barrett, E.L., Crome, E., Baillie, A.J., Mills, K.L., & Teesson, M. (2015). Smoking, PTSD and alcohol use disorders in a nationally representative sample of Australian men and women. *Drug and Alcohol Dependence*, 156, 176-183.
- <sup>52</sup> Bright, S., Walsh, K., & Williams, C. (2018). Point prevalence and patterns of mental health comorbidity among people accessing Australia's first older adult-specific alcohol and other drug treatment service. *Journal of Dual Diagnosis*, 14, 1, 70-75.
- <sup>53</sup> Morgan et al. (2014). Psychosis prevalence and physical, metabolic and cognitive comorbidity: data from the second Australian national survey of psychosis. *Psychological Medicine*, 44, 2163-2176.
- <sup>54</sup> Tiet, Q.Q., Mausbach, B. (2007). Treatments for patients with dual diagnosis: a review. *Alcoholism Clinical Experimental Research*, 31, 513–536.
- <sup>55</sup> Connolly, S.D., Suarez, L., Sylvester, C. (2011). Assessment and treatment of anxiety disorders in children and adolescents. *Current Psychiatry Reports*, 13, 99–110.
- <sup>56</sup> King, R.D., Gaines, L.S., Lambert, E.W., Summerfelt, W.T., Bickman, L. (2000). The co-occurrence of psychiatric and substance use diagnoses in adolescents in different service systems: frequency, recognition, cost, and outcomes. *Journal of Behavioural Health Services Research*, 27, 417-430.
- <sup>57</sup> Bruce, S.E., Yonkers, K.A., Otto, M.W., Eisen, J.L., Weisberg, R.B., Pagano, M., Shea, M.T., Keller, M.B. (2005). Influence of psychiatric comorbidity on recovery and recurrence in generalized anxiety disorder, social phobia, and panic disorder: a 12-year prospective study. *American Journal of Psychiatry*, 162, 1179–1187.
- <sup>58</sup> Lennox, R. D., Scott-Lennox, J. A., & Bohlig, E. M. (1993). The cost of depression-complicated alcoholism: Health care utilization and treatment effectiveness. *The Journal of Mental Health Administration*, 20(2), 138-152.
- <sup>59</sup> Salom, C.L., Williams, G.M., Najman, J.M., & Alati, R. (2014) Does early socioeconomic disadvantage predict comorbid alcohol and mental health disorders? *Drug and Alcohol Dependence*, 142, 146-153.
- <sup>60</sup> Ferris, J.A., Laslett, A-M., Livingston, M., Room, R. & Wilkinson, C. (2011). The impacts of others' drinking on mental health. *Medical Journal of Australia*, 195, S22-S26.
- <sup>61</sup> Callinan, S., Rankin, G., Room, R., Stanesby, O., Rao, G., Waleewong, O., Greenfield, T.K., Hope, A. & Laslett, A-M. (2018). Harms from a partner's drinking: an international study on adverse effects and reduced quality of life for women. *The American Journal of Drug and Alcohol Abuse*, DOI: 10.1080/00952990.2018.1540632,
- <sup>62</sup> Laslett A-M, Catalano P, Chikritzhs T, et al. (2010). The Range and Magnitude of Alcohol's Harm to Others. Alcohol Education and Rehabilitation Foundation. Retrieved from
- http://fare.org.au/wp-content/uploads/The-Range-and-Magnitude-of-Alcohols-Harm-to-Others.pdf
- <sup>63</sup> Salom, C.L., Betts, K.S., Williams, G.M., Najman, J.M., Scott, J.G. & Alati, R. (2014). Do young people with comorbid mental and alcohol disorders experience worse behavioural problems? Psychiatry Research, 219, 372-379.

- <sup>65</sup> Fogliani, R. (2019). Inquest into the deaths of: Thirteen children and young persons in the Kimberley region, Western Australia. Coroner's report. <a href="https://www.coronerscourt.wa.gov.au/">https://www.coronerscourt.wa.gov.au/</a> files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf
- <sup>66</sup> Bonevski, B., Regan, T., Paul, C., Baker, A.L. & Biquera, A. (2014). Associations between alcohol, smoking, socioeconomic status and comorbidities: Evidence from the 45 and Up study. *Drug and Alcohol Review*, 33, 169-176.
- <sup>67</sup> Salom, C.L., Williams, G.M., Najman, J.M., & Alati, R. (2014). Does early socioeconomic disadvantage predict comorbid alcohol and mental health disorders? *Drug and Alcohol Dependence*, 142, 146-153.
- <sup>68</sup>Council of Australian Governments (2008) Fourth National Mental Health Plan: An agenda for collaborative government action in mental health 2009-2014. Priority area 3: Service access, coordination and continuity of care. Australian Government, Canberra.
- http://www.health.gov.au/internet/main/publishing.nsf/%20content/9A5A0E8BDFC55D3BCA257BF0001C1B1 C/\$File/pla3.pdf Page 44
- <sup>69</sup> New Zealand Government (2018). *He Ara Oranga Report of the Government Inquiry into Mental Health and Addiction*. Retrieved from <a href="https://www.mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf">https://www.mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf</a>
- <sup>70</sup> Department of Health (2016). Drug and Alcohol Treatment Services PHN Circular 1-4 February 2016. http://www.health.gov.au/internet/main/publishing.nsf/Content/PHN-Circular1\_AOD
- <sup>71</sup> Australian Institute of Health and Welfare (2018). Alcohol, tobacco and other drugs in Australia. Australian Institute of Health and Welfare, Canberra. <a href="https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia/contents/introduction">https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia/contents/introduction</a>
- <sup>72</sup> Bevitt, A, Chigavazira, A., Herault, N., Johnson, G., Moschion, J., Scutella, R., Tseng, Y.P., Wooden, M. and Guyonne, K. (2015). Journeys Home Research Report No 6. Complete findings from waves 1 to 6. The University of Melbourne. Report prepared for the Australian Government Department of Social Services. <a href="https://melbourneinstitute.unimelb.edu.au/">https://melbourneinstitute.unimelb.edu.au/</a> data/assets/pdf\_file/0007/2202865/Scutella\_et\_al\_Journeys\_H ome\_Research\_Report\_W6.pdf
- <sup>73</sup> World Health Organization (Accessed 2019, April 2). Social Determinants of Health. Retrieved https://www.who.int/social\_determinants/sdh\_definition/en/
- <sup>74</sup> New Zealand Government (2018). *He Ara Oranga Report of the Government Inquiry into Mental Health and Addiction*. Retrieved from <a href="https://www.mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf">https://www.mentalhealth.inquiry.govt.nz/assets/Summary-reports/He-Ara-Oranga.pdf</a>
- <sup>75</sup> Bower, C., and Elliott, EJ, on behalf of the Steering Group. (2016). Report to the Australian Government Department of Health: Australian Guide to the diagnosis of Fetal Alcohol Spectrum Disorder (FASD).
- <sup>76</sup> Dudley, A., Reibel, T., Bower, C. and Fitzpatrick, J. (2015). Critical review of the literature: Fetal Alcohol Spectrum Disorders. Telethon Kids Institute.
- <sup>77</sup> FASD Hub (2019). National Disability Insurance Scheme and FASD. Retrieved 29 March, 2019, from <a href="https://www.fasdhub.org.au/fasd-information/managing-fasd/NDIS/">https://www.fasdhub.org.au/fasd-information/managing-fasd/NDIS/</a>
- <sup>78</sup> Inclusion Australia (N.D.). What is an intellectual disability? Retrieved 1 April, 2019, from https://www.inclusionaustralia.org.au/about-us/what-is-intellectual-disability/
- <sup>79</sup> Council of Australian Governments (2017). The Fifth National Mental Health and Suicide Prevention Plan. Council of Australian Governments. Retrieved from
- http://www.coaghealthcouncil.gov.au/Portals/0/Fifth%20National%20Mental%20Health%20and%20Suicide%20Prevention%20Plan.pdf
- <sup>80</sup> Dudley, A., Reibel, T., Bower, C. and Fitzpatrick, J. (2015). Critical review of the literature: Fetal Alcohol Spectrum Disorders. Telethon Kids Institute, 65.
- <sup>81</sup> Dudley, A., Reibel, T., Bower, C. and Fitzpatrick, J. (2015). Critical review of the literature: Fetal Alcohol Spectrum Disorders. Telethon Kids Institute.
- <sup>82</sup> Streissguth A.P, Bookstein F.L, Barr H.M, Sampson P.D, O'Malley K., Kogan J. (2004). Risk factors for adverse Life outcomes in fetal alcohol syndrome and fetal alcohol effects. *Dev Beh Pediatr*, 25, 228–38.
- <sup>83</sup> Carol Bower, C., Watkins, R., Mutch, R., Marriott, R., Freeman, J. Kippin, N., Safe, B., Pestel, C., Cheung, C. Shield, H. Tarratt, L., Springall, A., Taylor, J. Walker, N., Argiro, E., Leitão, S., Hamilton, S., Condon, C., Passmore, H. and Giglia, R. (2018). Fetal alcohol spectrum disorder and youth justice: a prevalence study among young people sentenced to detention in Western Australia. *BMJ Open*, 8:e019605. doi:10.1136/bmjopen-2017-019605

<sup>&</sup>lt;sup>64</sup> Schiff, M., Plotnikova, M. Dingle, K., Williams, G.M., Najman, J., Clavarino, A. (2014). Does adolescent's exposure to parental intimate partner conflict and violence predict psychological distress and substance use in young adulthood? A longitudinal study. *Child Abuse and Neglect*, 38, 1945-1954.

- <sup>85</sup> Famy, C., Streissguth A.P., & Unis, A.S. (1998). Mental illness in adults with fetal alcohol syndrome or fetal alcohol effects. *American Journal of Psychiatry*, 155, 4, 552-554.
- <sup>86</sup> Reid, N., Shelton, D., Warner, J., O'Callaghan, F. & Dawe, S. (2017). Profile of children diagnosed with a fetal alcohol spectrum disorder: a retrospective chart review. *Drug and Alcohol Review*, 36, 677-681.
- <sup>87</sup> O'Connor, M.J., Portnoff, L.C., Lebsack-Coleman, M. and Dipple, K.M. (2019). Suicide risk in adolescents with fetal alcohol spectrum disorders. *Birth Defects Research*, Jan 24, doi: 10.1002/bdr2.1465. [Epub ahead of print].
- <sup>88</sup> Salvatore, T., Brown, J., Martindale, J., & Harr, D. (2016). Fetal Alcohol Spectrum Disorder (FASD) and suicidal behavior: An introduction for criminal justice and mental health professionals. *Forensic Scholars Today*, 2(1), 4. <sup>89</sup> Thanh, N. X., & Jonsson, E. (2016). Life expectancy of people with fetal alcohol syndrome. *Journal of Population Therapeutics and Clinical Pharmacology*, 23(1), 53–59. Retrieved 21 March, 2019, from <a href="https://www.ncbi.nlm.nih.gov/pubmed/26962962">https://www.ncbi.nlm.nih.gov/pubmed/26962962</a>
- <sup>90</sup> Huggins, J. E., Grant, T., O'Malley, K., & Streissguth, A. P. (2008). Suicide attempts among adults with Fetal Alcohol Spectrum Disorders: Clinical considerations. *Mental Health Aspects of Developmental Disabilities*, 11(2), 33.
- <sup>91</sup> Fogliani, R. (2019). Inquest into the deaths of: Thirteen children and young persons in the Kimberley region, Western Australia. Coroner's report. <a href="https://www.coronerscourt.wa.gov.au/">https://www.coronerscourt.wa.gov.au/</a> files/inquest-2019/13-Children-and-Young-Persons-in-the-Kimberley-Region-Finding.pdf Pg 256.
- <sup>92</sup> Laslett, A.M., Mugavin, J., Jiang, H., Manton, E., Callinan, S., MacLean, S., & Room, R. (2015). The hidden harm: Alcohol's impact on children and families. Canberra: Foundation for Alcohol Research and Education.
- <sup>93</sup> Streissguth A., Bookstein F., Barr H., Sampson P., O'Malley K, and Young J. (2004). Risk factors for adverse life outcomes in Foetal Alcohol Syndrome and Foetal Alcohol Effects. *Journal of Developmental and Behavioural Pediatrics*, 25(4), 228-238.
- <sup>94</sup> Wilkinson, C., Allsop, S., Cail, D., Chikritzhs, T., Daube, M., Kirby, G. and Mattick, R. (2009). Report 2: Alcohol warning labels: Evidence of impact on alcohol consumption amongst women of childbearing age. Report prepared for Food Standards Australia New Zealand

<sup>&</sup>lt;sup>84</sup> Popova, S., Lange, S., Shield, K., Mihic, A., Chudley, A.E., Mukherjee, R.A.A., Bekmuradov, D., & Rehm, J. (2016). Comorbidity of fetal alcohol spectrum disorder: a systematic review and meta-analysis. *Lancet*, 387, 978-87.



### **FOUNDATION FOR ALCOHOL RESEARCH & EDUCATION**

PO BOX 19 DEAKIN WEST ACT 2600 02 6122 8600 | info@fare.org.au | www.fare.org.au