

Annexure A

Submission to: Senate Select Committee on Regional and Remote Indigenous Communities

Understanding Alcohol as a Teratogen

Prenatal exposure to alcohol results in clusters of physical and neurodevelopmental primary disabilities unique to each individual and is largely a result of dosage and timing of alcohol exposure.

The effects of alcohol on the developing fetus (whether Indigenous or non-Indigenous) are well documented in the medical literature and evidence is mounting as to its long-term consequences. Science is investigating the link between the prenatal environment and adult diseases and some of that work is turning its attention to alcohol's pervasive effects and how that may be linked to the wider burden of disease. Preliminary data from a few scientific studies show a cause for concern. There are indications that, prenatal alcohol exposure alters DNA and gene expressions (epigenetic) that may predispose individuals to previously unrelated diseases including cancerⁱ. Perhaps this is not surprising given that alcohol is carcinogenic.

We are not wishing to overstate or sensationalise the issue here, but merely pointing out that prenatal alcohol exposure is very likely linked to a range of disorders and diseases in more ways than we currently recognise, strengthening the argument for greater prevention efforts.

Clearing up the confusion about the terminology

There is confusion about the terminology and it does not seem well understood by most Australians including many health professionals that Fetal Alcohol Syndrome is only one of the adverse consequences of alcohol exposure during pregnancy.

Fetal Alcohol Spectrum Disorders (FASD) is an umbrella, (educational) term used to describe a range of disabilities and a continuum of effects that may arise from prenatal alcohol exposure and it is widely recognized as the most common preventable cause of birth defects and brain damage in children. FASD is not a clinical diagnosis in itself but represents a range of diagnoses that fall under the spectrum. These diagnoses are Fetal Alcohol Syndrome (FAS), partial Fetal Alcohol Syndrome (pFAS), Alcohol Related Neurodevelopmental Disorders (ARND) and Alcohol Related Birth Defects (ARBD).ⁱⁱ

If Doctors have not been specially trained to diagnose FASD, they may misdiagnose affected children with ADD/ADHD, Autism/Aspberger Disorder or a Mental Health issue.

NOFASARD has increasing anecdotal evidence of children being purposefully mis-diagnosed in order to qualify for services.

Pregnant Women & Alcohol

Australian studies indicate that there is an increasing number of women of child bearing age drinking at risky levels and that 50% of pregnancies are unplanned. Some studies suggest approximately 59% of non indigenous pregnant women and 44% of Indigenous pregnant women continue to consume alcohol.^{iii iv}

Indigenous Australians are more likely to be non-drinkers than the rest of the Australian population, but when they do drink, they do so at much greater rates than non-indigenous Australians.^v In an in-depth study on alcohol use in the Kimberley region of Western Australia, also part of the Western Desert, Indigenous people were classified as either constant, intermittent or episodic drinkers^{vi}. Constant drinkers drink most of the time. Intermittent drinkers were those who drank around pay- day while episodic drinkers would drink heavily for a period but then have withdrawal periods lasting a month or more. The latter two of these categories can both be considered “binge drinking” which means that all three drinker categories put babies at high risk for FASD.

ⁱ Infante-Rivard C, Krajinovic M, Labuda D and Sinnett D (2002). *Acute Lymphoblastic Leukemia Associated with Parental Alcohol Consumption and Polymorphisms of Carcinogen-Metabolizing Genes.* EPIDEMIOLOGY 2002;13:277–281.

ⁱⁱ Chudley et al 2005 Fetal Alcohol Spectrum Disorder: Canadian Guidelines for Diagnosis CMAJ

ⁱⁱⁱ Wallace et al (2007) Australia New Zealand Journal Public Health (2007) vol. 31 no. 1

^{iv} Colvin L, Payne J, Parsons D, Kurinczuk JJ, Bower C. Alcohol consumption during pregnancy in non-indigenous West Australian women. *Alcohol: Clin Exp Res.* 2007; 31:276-284.

^v ABS • THE HEALTH AND WELFARE OF AUSTRALIA'S ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES • 4704.0 • 2003

^{vi} Hall W, Hunter E & Spargo R. Alcohol-related problems among Aboriginal drinkers in the Kimberley region of Western Australia. *Addiction*, 88, 1993, 1091-1100 .