## **FARE FASD Action Plan comments**

#### **TERMS OF REFERENCE**

(Based on NDRI studies and research for papers/proposals)

# **Prevention strategies**

Decisions about alcohol use during pregnancy are not the sole providence of women, but occur within the social context of Australian society. Australian per capita alcohol consumption is high by world standards (World Health Organisation, 2011) and is a behaviour that occurs and is often supported by complex social and cultural circumstances.

Well designed prevention planning should include findings from evidence based reviews of the research literature. However, literature reviews show that there is a dearth of evidence about what works in preventing and responding to FASD (Stade et al, 2009). There is limited information on the impact of larger scale community intervention such as warning labels and taxation on alcohol in relation to consumption by pregnant women, suggesting the need for more intervention research.

### Intervention needs

#### **Paternal Interventions**

Paternal alcohol consumption during preconception. Emerging evidence that paternal alcohol use contributes to DNA damage to sperm and fetus (low birthweight, congenital heart defects, reduced cognitive ability). Animal studies support impact of paternal alcohol consumption on fetus even in the absence of maternal alcohol exposure.

Male partners have important impact on maternal consumption during pregnancy through social facilitation. NDRI study 75% of women who drank during pregnancy usually drank with their partner, with 40% noting that partner usually initiated a drinking occasions. International research notes that heavy drinking pregnant women are more likely to have partners who are heavy drinkers.

Research suggests that specific risk factors may include recent maternal drug use (Accornero et al 2002), high life stress (Lynch et al 2003), maternal psychopathology (Sood et al, 2001), custodial changes, current drug use in home, and violence exposure (Delaney-Black et al 2000). Several of these factors have a level of partner involvement.

## Preconception

Preconception is an important intervention point. Haycock (2009, 2011) in his study of epigenetics, suggests that there can be a timelag in alcohol's tetrogenic effects on embryonic development. That is, there can be a delayed impact of alcohol on the developing embryo when alcohol use occurs prior to conception and pregnancy.

Often consumption occurs in the non-recognised phase of pregnancy – need for prevention activity during preconception and child bearing years.

# Choline supplementation.

Choline supplementation has been shown to reduce learning deficits and spacial working memory during and after prenatal alcohol consumption in animal studies (Thomas, 2011). Could be a possible future 'after the event' treatment.

# Social determinates of use

Research suggests that specific risk factors may include recent maternal drug use (Accornero et al 2002), high life stress (Lynch et al 2003), maternal psychopathology (Sood et al, 2001), custodial changes, current drug use in home, and violence exposure (Delaney-Black et al 2000).

# Women who drink to risky levels while pregnant

NDRI Study. Some women who drink to risky levels while pregnant stated that they were concerned about drinking during pregnancy, but less so than about their use of other drugs, particularly tobacco. Combined prevention efforts may therefore be an important consideration, as will be intensive individually targeted programs to assist in moderating use of multiple substances.

'Risky' women are less likely to have a planned pregnancy. Research suggests that unplanned pregnancies can result from ineffective contraception use often associated with the use of alcohol (23). The combination of drinking and ineffective contraception suggests that interventions with combined messages for women who drink to risky levels may be an important form of intervention.

# **Management issues**

Infants and children impacted upon by fetal alcohol effects are diagnosed under other disabilities and receive services under these alternative classifications. The aetiologies of disabilities are important as they can determine treatment protocols, and at a community level, can have an important impact on policy, funding and focus of prevention activity.

Participatory research with women who cease consumption once pregnancy is recognised could assist in the development of prevention programs.

A recent Canadian study reports that a higher proportion of the population is affected by less severe FASD outcomes than those affected by FAS, and this replicates the findings of a German study (Loser, 1999) which notes that the number of severe cases of FAS decreased between 1973 and 1999 but the number of mild cases increased. If this pattern also proves to be in play in Australia then it has implications for policy and funding recommendations as it introduces the issue of the prevention paradox. The prevention paradox comes into play when more harm may be prevented by targeting a larger although lower consuming proportion of the population (Hawks, 1989).

Calculating accurate economic costs for Australia will be an essential part of any future focus on FASD. Included in these costs, but often hidden from discussions about FASD, is the likelihood of FASD affected children and adults being overrepresented in the criminal justice system.

Early days of intervention in Australia, need to ensure evidence based and where evidence doesn't exist provide best option using clinical wisdom while intervention research is conducted.

### References:

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Lynch ME, Coles CD, Corley T, Falek A. Examining delinquency in adolescents differentially exposed to alcohol: the role of proximal and distal risk factors. Journal of Studies on Alcohol. 2003;64(5):678-86.

Thomas J. Epigenetics and FASD Choline as a treatment for FASD: choline as an epigenetic factor. In: University of British Columbia, editor. 4th International Conference on Fetal Alcohol Spectrum Disorder Vancouver: The University of British Columbia; 2011. p. 363-6.