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Devising and communicating public health alcohol guidance for expectant and new mothers: a scoping report

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CONTENTS

Executive Summary	4
Introduction and Aims	4
Methods.....	4
Findings	4
Key recommendations	6
Section 1: Guidance on alcohol consumption in pregnancy: underlying principles and evidence base.....	7
1.1 Introduction	7
1.2 Prevalence of alcohol consumption in pregnancy	8
1.3 Alcohol-related harm from consumption in pregnancy.....	11
1.4 UK guidance on alcohol in pregnancy.....	12
1.5 Communicating the new message.....	15
Section 2: Research aims and methods.....	18
2.1 Aim of the research.....	18
2.2 Research methods.....	18
Section 3: Focus group findings.....	20
3.1 Perceptions of the guidance	20
3.2 Making sense of the precautionary principle	22
3.3 Communication of the guidance	24
3.4. Abstinence guidance and the social context for drinking.....	29
3.5 Abstinence, pregnancy planning and surveillance.....	32
3.6 Benefits and drawbacks of abstinence guidance.....	36
Section 4: Discussion: Recommendations for guidance communication	39
References	45
Appendix 1 – participant information sheet.....	49
Appendix 2 – photos of activities	51

EXECUTIVE SUMMARY

Introduction and Aims

In January 2016, the Chief Medical Officers of the UK published new joint public health guidance on alcohol consumption. This encompassed revised guidance for the general population as well as specific recommendations relating to alcohol consumption for women who were pregnant or planning a pregnancy. A precautionary approach to evidence communication was adopted, leading to a recommendation that women who are pregnant or planning a pregnancy abstain from alcohol completely.

The aim of this research was to understand the experiences and perceptions of key stakeholders in response to revisions to the CMO guidance. This report identifies areas for further consideration in communication of public health messages on alcohol consumption in pregnancy. The report begins with an overview of the guidance and evidence context for drinking during pregnancy, including known levels of consumption and harm. Findings from focus groups with policy makers, health service practitioners, antenatal educators and parents, convened to discuss understanding and application of current guidance, are then presented. The report concludes with recommendations for improving communication of evidence on alcohol use in pregnancy.

Methods

Document analysis of the new CMO guidance and supporting literature was undertaken. Key findings from this review were then discussed with four stakeholder focus groups.

Findings

- **Interpretations of the precautionary principle.** The new guidance for alcohol in pregnancy is underpinned by a precautionary principle. This principle contrasts with the informed-choice approach that underpins alcohol advice for the general population. The rationale for this different approach is not articulated clearly in the guidance documents. In consequence, users rationalise for themselves. Some conclude that the guidance is intended to provide an extra layer of protection to the foetus. Some conclude it is intended to protect more vulnerable and less educated women who lack the capacity to interpret the evidence wisely. Some believe that it is meant to provide a strong message about alcohol consumption at a '*teachable moment*', leading to longer-term health benefits. Others conclude that the guidance is an example of over-reach, legitimising social surveillance of pregnant women, while failing to take account of the social and well-being cost of not drinking. Midwives noted that

the guidance was congruent with a normalised directive approach to communicating with women in pregnancy.

- **Clarity versus accuracy.** Midwives responsible for communicating the guidance and some new mothers appreciated the clarity of a simple abstinence message. However, many stakeholders, including new mothers and third sector workers, felt that a goal of message clarity was being unduly prioritised above a goal of message accuracy. These stakeholders felt that guidance communication should acknowledge that the underpinning evidence does not lend itself to clarity in relation to low level drinking in pregnancy. The lack of nuance in the clear abstinence message is not acceptable to all women, and sometimes led to mistrust and to mothers seeking alternative advice from other sources. Mothers tended to draw on advice from multiple sources. Competing voices from social networks and from online forums were influential.
- **Interaction with pregnancy planning.** Guidance to abstain from drinking while planning a pregnancy and throughout pregnancy is incompatible with women's lived experiences of pregnancy planning (or un-planning) in a culture of social drinking. Stakeholder experiences confirmed survey evidence that drinking, including heaving drinking, before becoming aware of pregnancy is common. Stakeholders in all groups were confused by and dissatisfied with the 'warning versus reassurance' conflict they perceived in the guidance for women who drink alcohol before they know they are pregnant. Many stakeholders believed the guidance was causing undue irresolvable anxiety, while some were concerned about providing false-reassurance.
- **Policing pregnancy.** Stakeholders felt that the guidance increased the likelihood of social surveillance both of women's alcohol consumption and of women's fertility. Intended mechanisms underpinning the guidance communication strategy are unspecified. However, several stakeholders perceived that social shaming was an implicit intended mechanism; that the unambiguous abstinence message and a logo suggesting that drinking in pregnancy is illegal were intended to increase the likelihood that others would intervene to discourage a pregnant woman from drinking. Several stakeholders had direct personal experience of social surveillance. Furthermore, in a context of widespread social drinking, compliance with an abstinence message can lead to mothers tacitly revealing a pregnancy before they are ready.
- **Ecological reach.** The guidance applies an individual biological solution to a complex ecological social problem, with little recognition of the social and interpersonal pressures and influences affecting choice. All stakeholders agreed that women who had made a decision not to drink in pregnancy appreciated support from social network members. Mothers, third sector workers and midwives believed that encouraging partners of expectant mothers to cut down or stop drinking for the duration of the pregnancy would be affirming, would help strengthen the family unit and would reduce the social cost of not drinking among expectant mothers.

Key recommendations

1. **Communicate underpinning principles.** Underpinning principles for a decision to develop a precautionary message rather than taking an informed-choice approach to specific guidelines should be transparent in the guidance document itself and in supporting information. Principles of honest communication and clear risk presentation should underpin communication strategies intended to deliver the guidance.
2. **Layer explanations.** Where the evidence base is not straightforward, users vary in the extent to which they value clarity or accuracy. Communication strategies should take account of this variation and should include opportunities for users to engage with the complexity underpinning a precautionary message. This could be achieved by taking a layering approach to evidence presentation, enabling users to access information to a depth that suits their own needs. Health professional bodies and third sector organisations should consider strategies to facilitate this approach to communication.
3. **Ensure congruence with reality of pregnancy planning.** Public health guidance for women in pregnancy should be congruent with the lived experience of 'pregnancy planning' and should reflect the reality that pregnancy occurs in the context of a spectrum of 'planning' behaviours.
4. **Set out intended mechanisms and avoid social shaming.** Intended mechanisms underpinning guidance communication strategies relating to women in pregnancy should be clearly specified. Those responsible for devising communication strategies should reflect on the role of social shaming and social policing as an intended or unintended mechanism for change, and alternative mechanisms should be considered. Strategies could include providing professionals with tools for managing layered conversations with women and family members and for re-framing the guidance in the positive – emphasising that there are no *benefits* to baby from drinking and that there may be benefits of abstinence to mother and her partner.
5. **Consider a social network message.** Consideration should be given to extending the guidance to include family members and partners with respect to the influence of *their own* behaviour and the benefits of temporary abstinence, both for social support and for personal health reasons. This recommendation needs to be considered in the light of recommendations above to avoid exacerbating social shaming behaviours or further restricting maternal choice.
6. **Research social impact of message as part of guidance development.** Although a consultation on guidance communication took place, qualitative research on with target audiences is also recommended, including pre-testing of messages to identify perceived validity in 'real-world' social drinking, pregnancy planning and pressured parenting contexts. Unintended negative effects and alternative message framing should be considered.

SECTION 1: GUIDANCE ON ALCOHOL CONSUMPTION IN PREGNANCY: UNDERLYING PRINCIPLES AND EVIDENCE BASE

1.1 Introduction

In January 2016, the Chief Medical Officers of the UK published new joint public health guidance on alcohol consumption. This encompassed revised guidance for the general population as well as specific recommendations relating to alcohol consumption for women who were pregnant or planning a pregnancy. Following an evidence review, guidance for men was revised to a lower level of recommended consumption, down from no more than 21 units per week to no more than 14. While guidance for women was maintained at no more than 14 units. Women who were pregnant or planning a pregnancy were advised to abstain from drinking alcohol.

The guidance document aims to fulfil a public right to information about the risks of alcohol consumption and is explicitly underpinned by principle of informed choice.

People have a right to accurate information and clear advice about alcohol and its health risks.

(DoH, 2016, p2)

Individuals will make their own judgements as to risks they are willing to accept from alcohol, whether to drink alcohol, and how much and how often to drink. These guidelines should help people to make informed choices.

(DoH 2016, p2)

This report considers a subsection of the guidance relating to drinking while planning a pregnancy or when pregnant and considers the principle of informed choice with respect the specific guidance for this target population.

The report considers the impact of the guidance from the perspectives of key stakeholders. It is divided into four sections.

Part 1 summarises the evidence on drinking in pregnancy and outlines the new guidance. The development process and underpinning principles of the guidance are discussed.

Part 2 describes the research aims and focus group methodology.

Part 3 sets out the focus group findings of participatory focus groups with alcohol policy participants, midwives, third sector sector antenatal educators and new mothers. The findings address stakeholder views of the CMO guidance, and perceptions and experiences of alcohol guidance in pregnancy.

Part 4 sets out a series of recommendations and options for improved communication of information on alcohol in pregnancy and introduces a filter of considerations for communication of alcohol guidance in pregnancy synthesised from the research. This filter takes account of the limitations of guidance-based approaches and the wider UK alcohol context, as well as the ethical considerations related to intended and unintended change mechanisms.

1.2 Prevalence of alcohol consumption in pregnancy

This section summarises evidence of current alcohol consumption during pregnancy in the UK. Key points are summarised in **Box 1** at the end of this section.

Reliable estimates of drinking in the general population are difficult to obtain, and problems are exacerbated for studies of drinking in pregnancy. Most research studies use retrospective self-report data which is subject to reporting error. Under-reporting of alcohol consumption by the general population may be by as much as 40% based on the gap between self-reported consumption and that derived from alcohol sales data (Boniface and Shelton, 2013). This is partly attributable to varying glass sizes, drink strength, and lack of knowledge and understanding of alcohol units (White et al., 2003; Wilkinson, 2011; Boniface et al., 2013). Stigmatised drinking practices, such as drinking above recommended levels, dependent drinking and drinking in pregnancy are more vulnerable to reporting bias, with respondents tending towards giving more socially desirable responses (Boniface, Kneale and Shelton, 2014).

Drinking in the UK population

By international comparison, UK citizens drink a lot of alcohol. Britons over the age of 15 on average drink 11.6 litres of pure alcohol a year (WHO, 2014). The long-term trend over the last half century has been a steady increase in alcohol by UK citizens as the cost of alcohol consumption has fallen in real terms (PHE, 2016). However, over the last ten years population levels of alcohol consumption have declined, from 64.2% of adults reporting drinking in the previous week in 2005 compared to 56.9% in 2016 (ONS, 2017).

On average, UK women drink less than men. The 2016 ONS Opinions and Lifestyle Survey found that around half (51.3%) of women had consumed alcohol in the previous week compared to two thirds (62.8%) of men (ONS, 2017). Just under a quarter of women (25.3%) and a third of men (28.2 %) reported 'binge drinking' (exceeding 6 units of alcohol for women or 8 units of alcohol for men) on their heaviest drinking day. Younger women were more likely to binge drink more than older women, with women aged 16-24 being most likely to binge drink; men of all ages under 65 were equally likely to binge drink.

Health Survey for England data, collated by the Health and Social Care Information Centre, suggests that adults who drink are more likely to be employed than unemployed, with regular consumption associated with higher household income

and higher earners more likely to report drinking at least 5 days a week. (HSCIC 2014). The correlation between affluence and heavy consumption is reversed in those characterised as dependent, who are more likely to be economically marginalised (Jones and Sumnall 2016).

The NHS estimates that around 3% of adult women and 9% of adult men in the UK show signs of alcohol dependence with a further 15-20% characterised as drinking to levels likely to cause harm to health (NHS Statistics on Alcohol, 2015). The heaviest drinkers are disproportionately represented in overall consumption statistics, with data from England illustrating that approximately a third of alcohol sales can be accounted for by around five per cent of drinkers (characterised as consuming over 50 units per week) (PHE, 2016).

Prevalence of any drinking in pregnancy

Recent estimates for prevalence of alcohol consumption in pregnancy vary considerably. The SCOPE (Screening for Pregnancy Endpoints) survey interviewed around 18,000 women at two time-points, concluding that alcohol use was '*prevalent and socially pervasive*' during pregnancy in Ireland, the UK, Australia and New Zealand; three-quarters of UK participants reported having consumed some alcohol in pregnancy (O'Keeffe et al, 2015). Much lower estimates of prevalence of drinking in pregnancy among UK women were gathered from Infant Feeding Surveys – a (now discontinued) five-yearly UK-based survey based on a representative sample of new mothers (McAndrew et al, 2010). The Infant Feeding Survey, found that prevalence of *any* drinking in pregnancy had fallen from 54% in 2005 to 40% in 2010. The overwhelming majority of respondents (93%) either reported not drinking or drinking less than 1 unit per week on average. A further 4% of respondents reported consuming between 1-2 units per week on average. Pre-pregnancy drinking behaviour is highly significant in understanding continuing consumption, with international evidence suggesting that prior weekly drinking is a strong predictor of continued alcohol use at any level during pregnancy, illustrated in Australia (Anderson et al. 2012), New Zealand (Mallard et al. 2013), Spain (Palma et al. 2007) and the UK (HSCIC 2012).

Prevalence of heavy drinking in pregnancy

A third of UK SCOPE study participants reported binge drinking (defined as six or more standard units per drinking occasion). Most of this drinking occurred in the first trimester of pregnancy. By comparison, only 1% of the sample reported binge drinking in the second trimester, suggesting that some first trimester consumption may be explained by lack of awareness of pregnancy (O'Keeffe et al, 2015). Slightly higher levels of heavy consumption were identified in the Infant Feeding Survey (3% drinking more than 1-2 units per week) (McAndrew et al, 2010). The General Lifestyle Survey of 2011 found that 5% of pregnant women were drinking on more than two days a week and, of these, 9% consumed more than two units on their heaviest drinking day, equating to 0.45% of total female respondents to the survey (GLS, 2013). Smith et al. (2014) found that 2.2% of surveyed pregnant women

who drank in pregnancy reported drinking more than 1–2 units once or twice a week. However, 2% of women who did not exceed the recommendation of 1–2 units once or twice a week reported heavy episodic drinking in the past three months. In all, Smith et al, identified that 5.4% of women sampled returned an AUDIT-C score that would position them in the harmful/hazardous category of this measure, this estimate is similar to that for dependent drinkers in the general female population.

Social characteristics and alcohol consumption in pregnancy

Drinking behaviour is associated with the social demographic of expectant mothers and reflects drinking patterns within the general population. Older UK women, those with higher educational attainment, and multiparous women are more likely to drink at all in the first trimester and more likely to continue to drink at low levels throughout pregnancy (HSCIC 2012; McAndrew et al., 2010), with similar findings found in Australia (Maloney et al. (2011). Drinking pre-conception and/or during the first trimester was more likely if women were multiparous and of white ethnicity (Smith et al., 2014; McAndrew et al., 2010).

The social profile those who drink heavily in pregnancy is likely to be different. Data from Australia suggests that women who drink heavily during pregnancy are more likely to have no other children, be single and to engage in other risk behaviours, including smoking and poorer diet (Tran, Najman and Hayatbaksh, 2014). This corresponds with international evidence suggesting that drinking alcohol and smoking in pregnancy tend to be associated behaviours (O’Keeffe, 2015). Those who binge drink after awareness of pregnancy are more likely to have no other children, be younger and be lower earners (Strandberg-Larsen et al. 2008), and are more likely to smoke and also use other illicit substances (Gladstone et al, 1997).

Box 1: Key points, alcohol consumption in pregnancy

- By international standards, the UK population has high rates of alcohol consumption.
- Many UK women consume some alcohol in pregnancy, however, self-reported rates of abstinence in pregnancy were rising prior to introduction of the 2016 guidance.
- Beyond the first trimester of pregnancy, overwhelmingly women either do not consume alcohol or consume alcohol at levels below that indicated in previous guidance.
- A minority of women continue to consume alcohol at levels above the previous guidance throughout their pregnancy.
- Women who drink any alcohol in pregnancy tend to be older, more educated and white.

1.3 Alcohol-related harm from consumption in pregnancy

This section briefly summarises evidence of alcohol-related harm from drinking in pregnancy and highlights the difficulties in utilisation of the current evidence base.

High levels of alcohol consumption during pregnancy are associated with a range of negative health outcomes for babies, including increased risk of low birth weight, miscarriage and premature birth, with higher levels of consumption correlated with higher risk (Patra et al. 2011). The risk of adverse birth outcomes increases with alcohol consumption over two units per week but has also been associated with low consumption (two units or less per week) in the first trimester (Nykjaer et al. 2014). Differences between baseline and elevated risks for these outcomes are not clearly specified.

Cognitive and behavioural disorders associated with drinking in pregnancy include Foetal Alcohol Syndrome (FAS), a condition in which children have restricted growth, facial abnormalities and learning and behavioural disorders which may be severe and lifelong (NOFAS-UK, 2011). FAS prevalence is estimated at 14.6 per 10,000 people, and occurrence has been found to be strongly associated with overall population consumption, with high consumption countries reporting higher FAS rates (Popova et al. 2007), however diagnostic variations may confound this analysis. Alcohol is further associated with partial foetal alcohol syndrome, ARDB (alcohol-related birth defects) and with ARND (alcohol-related neurodevelopmental disorders) as well as a range of adverse outcomes that fall under a non-diagnostic umbrella term of Foetal Alcohol Spectrum Disorder (FASD), incorporating a broad spectrum of physical and mental impairments, including learning difficulties, cognitive impairment such as language and problem-solving limitations, and difficulties with social function that are defined by their inferred cause – alcohol consumption in pregnancy. Inconsistent definition and diagnosis of FASD as well as inconsistent data collection across the UK makes incidence of FASD difficult to estimate (BMA 2015).

The epidemiological evidence base for foetal harm from drinking at low levels is described in the Department of Health Alcohol Guidelines Review as '*elusive*' (DoH, 2016, p27.). Demonstration of a relationship between low alcohol use and no harm is problematic with methodological variations, inconsistent definitions and absence of epidemiological evidence compounding this difficulty. Following a recent evidence review, Malmuk et al. (2017) concluded that there is a paucity of clear evidence, making it impossible to assess levels of harm from low levels of alcohol consumption. This may be due to lack of a robust methodology for inferring causal relationships and a lack of non-retrospective self-report drinking studies with this population. Kelly et al. (2009) argue that much research in this area has been of reduced quality due to small or non-representative samples as well as absence of control for confounders. The CMO guidance development team chose to apply a precautionary principle in light of this lack of evidence, strengthening guidance to abstain from drinking alcohol during pregnancy by removing a caveat clause advising women who did continue drinking to drink at low levels.

The guidance document stresses the use of the precautionary principle and makes the point that absence of evidence for harm cannot be equated with absence of harm. However, this explanation has been subject to conflicting media reporting. On the one hand headlines relating to the guidance itself have reflected a clear 'Don't Drink' message, on the other reporting of evidence reviews led to headlines suggesting there was 'no risk' from low levels of drinking in pregnancy:

'Light drinking in pregnancy does not harm unborn baby, study suggests'
The Independent, Sep 2017.

These mixed responses illustrate the difficulties in communicating risk where available evidence is unclear. Different interpretations are made even though the underlying evidence is the same.

Box 2: Key points, harm from alcohol consumption in pregnancy

- Heavy alcohol use during pregnancy is associated with negative outcomes for babies, including low birthweight, miscarriage, premature birth and foetal alcohol syndrome.
- There is a clear dose-response relationship for level of alcohol use and risk of harm.
- Evidence of harm at low levels of consumption is limited, however, absence of evidence does not mean absence of harm.

1.4 UK guidance on alcohol in pregnancy

This section summarises revisions in the UK guidance on alcohol in pregnancy from 1995 to 2016, including current recommendations for pregnant women (as well as those planning pregnancy). Key changes are summarised in **Boxes 3 and 4**.

Progressive strengthening of guidance

1995: Recommendations issued under the 1995 'Sensible Drinking' guidance (DoH, 1995), advised that pregnant women consume no more than 1-2 units of alcohol per week during pregnancy and for those likely to become pregnant. The 1995 report stated that evidence of harm at low levels was limited and highly variable, concluding that a low level recommendation was valid as:

... there is no good evidence that 1 or 2 drinks [8 or 16g of ethanol] per week has any adverse effect.

DoH, 1995, p15

2007: The guidance was reassessed by the Department of Health in 2007 as part of the development of the UK Alcohol Strategy: '*Safe. Sensible. Social*' (UK Gov. 2007). The statement was replaced with a recommendation that women who were

pregnant, or trying to conceive, should refrain from any alcohol use. However, the 2007 guidance went on to say that:

If they do choose to drink, to protect the baby they should not drink more than 1–2 units of alcohol once or twice a week and should not get drunk.

HM Gov. 2007, p3

The 2007 guidance represents the first recommendation of abstinence in pregnancy, but with the addition of a caveat that if women did drink it should be no more than 1-2 units per week.

2016: For the 2016 revised guidance this statement was further strengthened. The decision to strengthen was based on a conclusion by the guidance development group that overall the evidence of health impacts of alcohol use in the general population were stronger than they had been both in 1995 and 2007. The guidance acknowledges that, for all drinkers, no level of regular drinking can be considered completely safe. Furthermore, the group concluded that evidence relating to moderate consumption as a protective factor in the general population had weakened. This led to recommendations reduction in guidelines amounts for male drinkers in line with those for female drinkers.

With respect to specific guidance on pregnancy, the panel made decisions based on a review of the evidence which identified no guaranteed safe minimum for drinking during pregnancy in the context of constraints on availability of epidemiological evidence of harm at low levels of drinking. A precautionary recommendation to abstain was strengthened, specifically by removing the sub-clause advising women who still choose to drink to drink at low levels.

The precautionary recommendation, initiated in 2007 and then strengthened in 2016 is in contrast to the evidence-led, informed choice approach to guidance for the general population. The rationale for the 'better safe than sorry' approach was that:

The proposed guideline takes account of the known harmful actions of alcohol on the fetus; the evidence for the level of risk from drinking; the need for suitable clarity and simplicity in providing meaningful advice for women; and the importance of continuing with a precautionary approach on low levels of drinking when the evidence for its safety is not robust enough.

DoH, 2016. p15

On the one hand the guidance emphasises the right of the public to accurate information about alcohol, including of health risks, and for adults to be able to make 'informed choices' based on that information (DoH, 2016, p1). On the other, complexity is distilled in favour of a clear and unequivocal message relating to alcohol in pregnancy. The specific need for a clear, simple message to communicate to women planning a pregnancy or expecting a baby – set out in

the quotation above – not explained further. However, it does appear that the underpinning rationalisation in relation to pregnancy is values-based rather than evidence-led.

The adoption of the precautionary message is in line with changes made in Australian guidance in 2009; with the move from low alcohol use to new 'zero consumption' guidance for pregnancy. An evaluation of the impact of this shift suggests that, although the recommendation had high levels of popular support (Thomas et al. 2014) the guidance has had limited impact in terms of behaviour change, with consumption levels remaining stable and low (Powers et al. 2010). This suggests that in a population with widespread low level drinking in pregnancy women may find a 'low-risk' approach to consumption easier to operationalise than a no-risk approach.

Box 3: Progressive strengthening of the precautionary principle

- In the mid-1990s, Department of Health guidance advised pregnant women to drink no more than 1-2 units of alcohol per week (DoH, 1995). This guidance was based on evidence of harm at high levels of consumption and absence of evidence of harm at low levels of consumption.
- In 2007 an evidence review was carried out, which supported the 1995 findings, including that there was an absence of evidence of harm associated with low levels of drinking. However, at this stage precautionary principle was applied and the guidance was revised to state that women who are pregnant, or trying to conceive, should drink no alcohol. The 2007 guidance also stated that if women chose to continue drinking, they should consume at no more than 1-2 units per week. (UK Gov. 2007)
- This abstinence message was strengthened in 2016 guidance, including removal of advice relating to women who choose to continue drinking.

The revised 2016 guidance

The 2016 CMO guidance on alcohol was intended to

'inform the public about the known health risks of different levels and patterns of drinking'

(DOH, 2016, p2).

The guidance was the result of a lengthy evidence gathering process and interpretation process carried out by specially convened expert groups. A Health Evidence Expert Group conducted an evidence review, synthesising evidence from systematic reviews and meta-analyses of studies on alcohol related harm published since 1995. A Behavioural Expert Group assessed evidence for promoting behaviour change, with both groups then combining findings and recommendations on how new guidance should be developed and communicated, published as the Alcohol

Guidelines Review (DoH, 2016). The aim was for this to then be developed by a Guidelines Development Group, tasked with framing and communication of the new message.

Based on this evidence review, new guidelines on recommended alcohol consumption were issued to the general population, with specific content on alcohol and pregnancy. The guidelines relating to pregnancy attempt to strike a balance between giving a clear message that drinking alcohol, even at low levels, is potentially harmful and seeking to alleviate anxiety among women who have already drunk alcohol. **Box 4** contains the 2016 guidance statements relating to alcohol in pregnancy.

Box 4: Statements taken from the 2016 guidance

- If you are pregnant or planning a pregnancy, the safest approach is not to drink alcohol at all, to keep risks to your baby to a minimum.
- Drinking in pregnancy can lead to long-term harm to the baby, with the more you drink the greater the risk.
- The risk of harm to the baby is likely to be low if a woman has drunk only small amounts of alcohol before she knew she was pregnant or during pregnancy.
- Women who find out they are pregnant after already having drunk during early pregnancy, should avoid further drinking, but should be aware that it is unlikely in most cases that their baby has been affected. If you are worried about how much you have been drinking when pregnant, talk to your doctor or midwife.

(DoH, 2016, p5)

1.5 Communicating the new message

Ahead of formal release, a public consultation on all of the new guidelines was issued (UK CMO Guidelines Review, 2016), with specific advice to respondents that this was not focussed on assessing or critiquing the underlying evidence base but on whether the new recommendations were clear and easy to understand. To further support guidance communication, the Behavioural Expert Group were tasked with reviewing evidence on effectiveness of advisory information for public health messaging and with developing recommendations for communicating the revised guidance on alcohol consumption, including on alcohol in pregnancy. A series of recommendations were outlined in the Alcohol Guidelines Review (DoH, 2016b), including emphasising the key role of midwives and health professionals in supporting the message with their service users. It was further recommended that social marketing campaigns be used for dissemination. The Behavioural Expert Group recommended that the Guideline Development Group take the following into account:

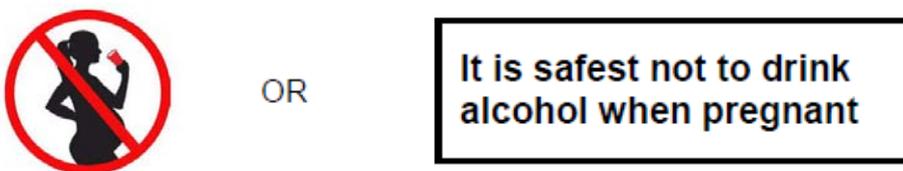
- Effective communication methods for guidelines – how to express risks and advice.

- Consider how clinicians might use new guidelines in public health advice.
- Consider how new guidelines might be mediated by industry.
- Consider how guidelines might support changes at the community and population level, e.g. via social marketing campaigns.

DoH, 2016b, p36

Despite this extensive process, the communication strategy (DoH, 2017) was brief (4 pages). A central thrust was that '*the alcohol industry and other partners*' would build on current approaches to communication with consumers. This included recommendations for incorporation into the existing voluntary code of conduct for the alcohol industry on product labelling, began in the Coalition Government 'Public Health Responsibility Deal' of 2010. Recommendations for product labelling were provided (Fig.1) in the communication strategy document and it was pledged by alcohol industry bodies that 80% of product labels would have adopted the alcohol and pregnancy logo by the end of 2013 (since met).

Figure 1: DOH suggested communication of guidance on drinking in pregnancy



The 2017 document significantly condensed the recommendations outlined in the Alcohol Guidelines Review. The CMO announcement of the guidance and the new, voluntary, labelling measures represented the key intended public communication measures. The document contained no discussion of the role of professionals, or third sector organisations in contributing to best practice in risk communication or to plans for wider marketing.

Box 5: Key points: UK guidance on alcohol in pregnancy

- Guidance on drinking in pregnancy was strengthened in 2016. Existing guidance advising pregnant women to abstain *or* to drink no more than 1-2 units of alcohol a week was replaced with blanket guidance advising pregnant women *and* women who are planning a pregnancy to abstain without any qualification of that advice for women who wished to continue.
- The guidance seeks to balance a warning of risks of 'long-term harm' with reassurance that drinking before becoming aware of the pregnancy is 'unlikely in most cases to have caused harm'.
- The underpinning evidence review found that evidence for harm from drinking at low levels in pregnancy was 'elusive', but that harm from drinking in pregnancy at low levels could not be ruled out.
- A precautionary principle underpinned the formation of pregnancy-related alcohol guidance, in contrast to informed choice approach taken for the development of guidance for the general population. The rationale for adoption of the precautionary principle is not explicit in the guidance document, however the guidance statements refer to an intention 'to keep risks to your baby to a minimum'.
- It was recommended that the new guidance be incorporated into existing voluntary alcohol labelling approaches adopted by industry, with suggested logos provided.

SECTION 2: RESEARCH AIMS AND METHODS

2.1 Aim of the research

The aim of this research was to understand the experiences and perceptions of key stakeholders in response to revisions to the CMO guidance. This focused on understanding, acceptance and use of the message advising abstinence from alcohol consumption when pregnant or planning a pregnancy.

2.2 Research methods

Focus groups were used to gather multiple stakeholder perspectives on issues and experiences of guidance communication. Ethical approval for the study was obtained from Cardiff University Research Ethics Board.

Research participants

Four groups of stakeholders who had different roles and responsibilities in relation to guidance communication and receipt were recruited. These groups comprised:

1. **Alcohol policy participants;** Group 1 was composed of two public health practitioners involved in policy development in Wales and two research and policy professionals from the third sector. Participants' roles were related to policy and strategy for communication of alcohol guidance.
2. **Midwives;** Group 2 comprised of five midwives from three Health Boards in Wales, two of whom had a role in provision of specialist substance misuse services. Participants' roles included communication of alcohol guidance in a clinical setting.
3. **Third sector parent support charity advocates, service and information providers;** Group 3 comprised four professionals and practitioners associated with NCT charity. Participants' roles included facilitating discussion and disseminating public health information with regard to pregnancy.
4. **New mothers;** Group 4 comprised five mothers with babies aged under eight months who had used the services of NCT charity. Participants' were target recipients of the intended alcohol in pregnancy guidance.

Alcohol policy professionals and third sector participants were identified through existing researcher networks in the field of enquiry and in consultation with project funders. Participants were approached initially by email and provided with information and with the opportunity to ask questions before agreeing to participate. Maternity care professionals and new mothers were recruited via e-flyers, disseminated by contacts in existing researcher networks.

Format and content of group discussions

The four focus groups were conducted face-to-face, except for Group 1 (alcohol policy participants) which combined face-to-face participation with teleconferencing. All group discussions lasted between 90 mins and 2 hours. New mothers attended the discussion group with their babies. All participants gave consent for audio-recording, transcription and for data to be used for the purposes of this report and subsequent research. The purpose of the study was outlined to all participants in an information sheet (**Appendix 1**) and verbally at the start of the group session.

Focus groups were semi-structured and were co-facilitated by the authors. At the start of the face-to-face groups (maternity care professionals, third sector antenatal educators and parents) participants were invited to take part in a statement sorting 'ice-breaker' activity intended to get the group thinking about the issues to be discussed. Participants were given a set of statements relating to the guidance and were asked to sort these according to strength of agreement (see photographs in **Appendix 2**). This then facilitated the discussion that followed. It was not possible to do this activity with Group 1, where several participants dialled in and Group 4 (new mothers) were given the opportunity to complete the activity individually as the presence of babies meant that group-level sorting was impracticable.

Each focus group was then given a five-minute presentation of the evidence relating to alcohol in pregnancy and of the issues to be discussed (handouts to accompany the presentation are provided in **Appendix 3**). For Group 4 (new mothers) this presentation was given as a verbal introduction to the discussion and without the accompaniment of handouts as this would have been impracticable with babies present. The remainder of the focus group comprised a discussion which was guided by an outline topic guide. The focus group discussions opened with a question relating to the statement-sorting activity and the presentation, '*What surprised you or caused you to have questions?*'. The topic guide then covered (i) participants' perceptions of the guidance, including aims values and evidence base, (ii) participants' perceptions and experiences of alcohol consumption in pregnancy, and (iii) participants' experience and perceptions of guidance communication and receipt.

Data analysis

Audio recordings were transcribed in full and read repeatedly to aid development of a coding frame. This frame was developed through these readings and with reference to the key literature already identified by the authors. Data was analysed thematically (Braun and Clarke, 2006), with all transcripts double coded by study authors. Any disputes or contradictions in coding were resolved through ongoing discussion and comparisons, before final identification of themes. The results of this analysis are presented below.

SECTION 3: FOCUS GROUP FINDINGS

Section 3 presents key findings from thematic analysis of focus group data, with illustrative quotes from participants throughout. Headings reflect main themes and include: participant awareness of the guidance and perceptions of the underlying principles in it; views on effective communication of the message; barriers and facilitators to following the guidance and the role of other influences on behaviour. Table 1, presented at the end of the section, provides an illustration of perceived benefits and drawbacks to the current guidance.

3.1 Perceptions of the guidance

This section presents participants' awareness of the 2016 CMO guidance on alcohol and pregnancy, followed by perceived reasons for current recommendations.

Content awareness

Participant groups were not equally familiar with the content of guidance on alcohol in pregnancy. Policy professionals, midwives and third sector participants tended to be aware that there was guidance advising women to abstain from drinking in pregnancy, though not all were aware that this extended to women planning a pregnancy. All but one of the new mothers were unaware of specific guidance to abstain, though all had either stopped drinking or had drunk at levels below the previous guidance once they knew they were pregnant.

New mothers were surprised to learn that the guidance that it covered the *whole of pregnancy* and suggested it would have been helpful if there was greater clarity about the impact of drinking during the different trimesters. Their assessments of risk at different stages of pregnancy tended to be influenced by other sources:

I genuinely thought that towards the end of pregnancy it was alright. So, I went to a wedding a month before my due date and everyone was like 'Oh, you'll be fine. Just a toast. Oh, the baby's cooked. Nothing can happen to it now'.

Group 4 – New mother

Mothers and third sector participants were also disappointed that guidance did not cover drinking alcohol while breastfeeding, particularly as it *did* cover the pre-pregnancy period. These participants were unaware of NHS guidance on alcohol and breastfeeding, which states that breastfeeding mothers should drink no more than 1-2 units per week and should not breastfeed within 2-3 hours of drinking (NHS Choices, 2016). Although most had received reassurance that drinking alcohol at low levels while breastfeeding would be unlikely to be harmful to the baby, it was felt to be informal and non-communicated through evidence. They also felt that evidence-based reassurance would be likely to impact on women's infant feeding decisions by removing a barrier to breastfeeding.

Credibility

Participants tended to feel that the lack of evidence from epidemiological studies in relation to low levels of drinking limited the credibility of the guidance to abstain from drinking altogether. Those who had read the documents recognised that the difficulty of the evidence gap had been acknowledged and considered by the guidance panel, however, not all participants felt that this acknowledgement was sufficient to justify the resultant statements:

It's using terms like '*elusive*' ... or '*hard to interpret*', which is another phrase that turns up in these background documents in the CMO guidance. It's a strange use of the language around any research finding.

Group 1 – Alcohol policy participant

Third sector participants and the new mothers group struggled to reconcile the guidance to abstain with the lack of underpinning epidemiological evidence, even when the discussion focused on the explanation that lack of evidence of harm is not evidence of lack of harm. Several people in the policy and third sector groups were concerned that lack of underpinning evidence might impact on parents' perceptions of the credibility of guidance for pregnancy more broadly. They were further concerned that the guidance might be failing to live up to a stated aim to present the data in a way that enabled informed choice:

It's just disbelief! If you find out that it's not, actually... this very specific statement, '*It's not safe to ...*'. What if it is? Then I know, we know, but nobody's shown that to be true. How does that impact on public health messages? It used to be no more than one to two units a week. Was that evidence based? [...] It's just interesting how this compares to other guidance in pregnancy. It's almost too simple, if this has been made deliberately simple to try to get rid of any ambiguity, is that the right thing?

Group 3 – Third sector participant

The new mothers group suggested that absence of underpinning evidence might cause them to take the guidance less seriously. One mother, who felt the guidance might have helped her to explain her own decision not to drink to others, expressed disappointment that evidence against drinking at low levels was not stronger:

I think if there was some evidence base behind it, it would be better, wouldn't it? If you could really point to some issues. Then people might say, '*Well then, I really won't*'. But if there's nothing to back it up ... '*Well, I'm still going to have one or two, because there is no reason not to*'.

Group 4 – New mother

Others – particularly in the midwifery group – felt that the stakes were too high to wait for epidemiological evidence of harm from drinking alcohol at low levels. It was suggested that known harm from drinking at higher levels, and understanding of physiological effects observed through studies of foetal scans, were sufficient to afford considerable credibility to the guidance – particularly as there was no known *benefit* from drinking in pregnancy:

I've seen [...] scans where a mum's had a drink and then the effect on the movements of that baby due to the alcohol. So, there are some little snippets of research of low level drinking around that [...] there's definitely [scan] evidence coming up, which midwives are aware of. We know that high level of drinking has an impact [...] I wonder whether we need to turn it round [...] actually, is it, in the absence of evidence, is it bad for us to say, '*It's still No Alcohol, No Risk*' [...] which is where the Heads of Midwifery have gone down. They've said: We know that high level drinking causes problems, we've got some sort of bits of evidence that are popping up around low level drinking, and the impact on things like foetal movements, which we know end up in still births, so actually, it's better that we go with '*No alcohol in pregnancy*', so that it's out there and it's clear.

Group 1 – Alcohol policy participant

3.2 Making sense of the precautionary principle

We discussed the precautionary principle underpinning the new guidance and participants expressed different views of the rationale for this. In policy maker and antenatal educator groups, concerns were expressed that the reason for changing the message had not been fully articulated in the guidance and that the communication strategy should have been more explicit in stating that this was a change in approach rather than a change in the evidence base. The various interpretations for the aims of the precautionary approach are presented here.

To provide an extra level of protection for the unborn baby

It was suggested that the primary justification for a more precautionary approach in pregnancy as compared to the general population was to afford unborn babies, who were not able protect themselves, an extra layer of protection. Participants tended to believe that this rationale for additional caution would be consistent with the agendas of most mothers who had decided to carry a pregnancy to term. However, in the midwifery and third sector groups it was pointed out that this was problematised by the legal status of unborn babies:

It's the protection of the unborn child, isn't it? Which is a dichotomy, because it hasn't got any rights within the law, and yet we're still using the mother to enforce the rights of the unborn child.

To make the guidance easier to understand

Participants across all groups shared a belief that the evidence base was difficult to interpret and tended to understand the advice to abstain as being intended to provide clarity rather than accurately reflecting risk of harm. It was widely recognised that the abstinence message may be too simple for those who would prefer advice which reflected an uncertain and complex evidence base.

While for some the trade-off between accuracy and clarity felt justified, others suggested that the simplification of the evidence was patronising:

If you assume that pregnant women are somehow less capable of understanding complex messages, compared to the rest of the population, then there's a very good argument [for taking a precautionary approach].

Group 1 – Alcohol policy participant

Participants in all groups believed that self-reported drinking levels could be inaccurate. Participants in all groups also tended to think that clear advice to abstain might be easier for some mothers to follow than the previous advice to restrict consumption to one or two units per week, and some felt that the precautionary principle was being employed in recognition of that. Midwives were most likely to believe that pregnant women struggled to make sense of complex messages and to suggest that many of their clients preferred clearer information. These beliefs applied particularly to women with lower educational attainment and those with mental health or substance misuse problems.

[More educated mothers] are more likely to have more of an understanding of what a unit is.

Group 2 - Midwife

Midwife 1: I think for the clientele that I work with, I think having a clear, *'You should do this, you shouldn't do that'*, women know where they stand. And I think a lot of women get confused by so many different messages that sometimes it's easier to say, right, *'You don't drink, or you shouldn't smoke, rather than....'*

Midwife 2: ... *you can drink one or two units, or you can smoke'*. Yes, because [a more complex message] fudges the boundaries.

Participants in the new parents group also believed that the clarity of the guidance was intended to safeguard *'vulnerable'* women who would find it more difficult to negotiate a complex message about low-level drinking. They did not include themselves in the category of *'vulnerable'*, suggesting that they were positioned to bring self-awareness of their own drinking behaviour and understanding of their

individual physiology into their decision making. While participants felt that different women would have different levels of capacity to interpret guidance, they felt women from all backgrounds would share difficulties in acting to *limit* intake. In particular, participants in the new mothers and third sector groups recognised in themselves a difficulty in '*keeping a lid on it*', in knowing when to stop drinking.

To stimulate broader life-style change

The Alcohol Guidelines Review suggests that changes to drinking in pregnancy can stimulate other healthy choices that will support positive outcomes for mother and baby. Participants in the policy and midwifery groups recognised this and further suggested that the precautionary guidance may have been intended to have a longer-term impact on health behaviour. Some believed that women were more susceptible to public health messages during pregnancy, therefore precautionary guidance was appropriate to take advantage of a '*teachable moment*'. Others also believed that persuading women to stop drinking at this time would result in longer-term benefits for families by setting the tone for a more permanent change in maternal drinking behaviours as women took on responsibility for the well-being of their children:

The other way to view it, to be a bit controversial, is to look at pregnancy as the start to parenting. [...] Would you be happy to see a mother looking after a baby who was drunk? If she's drunk, if she's had too much to drink, she's not capable. So, you could view pregnancy as being, '*This is the start of your parenting*'. [...] Roles and responsibilities.

Group 2 – Midwife

3.3 Communication of the guidance

This section presents participant views of barriers and facilitators for effective communication of the new CMO guidance. It discusses conversations between professionals and expectant mothers in practice settings, before considering application of a parents rights-based approach. It concludes with discussion of alternative sources of information that impact on message communication.

Communicating the guidance in a clinical setting

The role of professionals was variably described as: managing conversations around drinking to promote the guidance (by policy professionals); goal setting for behaviour change (midwives); not validating low level drinking (midwives). Midwives unanimously welcomed the clear '*abstain*' message, seen as supporting their role to encourage behaviour change. They perceived this message as being consistent with the tone of other forms of advice given to pregnant women – for example, in relation to smoking and losing weight – and recognised it as being in line with current policy initiatives centred on promoting the conditions for healthy pregnancies. One policy participant articulated this view:

I think pregnant women actually are very used to precautionary principles, because we give it to them all the time. So, whether it's about food that they're going to eat, or smoking, or BMI, there's lots of principles out there... And actually, I would say that I think pregnant women are happier with a clear message rather than the message we were giving before.

Group 1 – Alcohol policy participant

For midwives the clear 'no alcohol' message was helpful where women understated the amount that they drank in antenatal discussions, either because they really didn't know or were unable to count units, and in avoiding the challenge of women 'saving up' an allowance of drinks to use on a planned binge:

Thinking back, when we used to say, '*One to two*' [...] but you can't save those up and have them all in one go, it's not like that, it is very much ... So again, it's consistent with the extra messages that goes with it. If there's lack of that consistency then you can fudge – '*I'll have three one week and none the week after...*'

Group 2 - Midwife

Midwife participants tended to believe that expectant mothers were prone to deliberately understating their smoking and drinking levels in antenatal appointments to give socially acceptable answers and to present as a '*good mother*':

They might say, '*I have one or two units a week*', they'll just disclose what they think they should say.

Group 2 - Midwife

Midwives were the only group who consistently used the term 'disclosure' in conversations about alcohol in pregnancy, using the word 34 times in the course of the discussion. Usage appeared to reflect an understanding of their own role in eliciting problematic behaviour from reluctant clients. In contrast, the term 'disclosure' was used only four times among participants in the other three groups, with one of these mentions being a parent's reflection that 'disclose' was a stigmatising word. Participants also understood the midwife role to include nuancing the blanket abstinence advice in a way that was appropriate to the risks and level of understanding of the mothers they were supporting. Again, there was a tendency to believe that better educated mothers were more able to handle the ambiguities in the evidence:

[The midwife] will be able to gauge how much information a woman wants more, on top of that. So, it's about ensuring that you give the evidence, that that's done in a fairly simplistic form because you're giving

that on a lot of different topics, but actually, that there is access to those things should she want to go and find them out.

Group 1 - Alcohol policy participant

There were contradictions in the midwifery discussion about the value of a clear abstinence message. Some midwife participants felt that that every disclosure of alcohol consumption – even drinking 1-2 units a week in line with the previous guidance – should be discouraged and followed up.

Because what it could be doing is the woman is looking for your reassurance that that's okay, the health professional. But that's why we've got to be really consistent with the same message. Even if you say I only have one glass a week, you've still got to explore that because it's still one more than the recommended dose.

Group 2 - Midwife

We have got a substance misuse service in every health board, so women with problematic drinking, even on a low level, would actually be referred into service. So, it wouldn't be very high dependent drinkers, it would be moderate level drinkers.

Group 1 – Alcohol policy participant

However, for other midwives, the emphasis on clarity in the guidance presented a dilemma because it contradicted with their understanding that they should be taking a person-centred approach to consultation. This person-centred approach to antenatal consultations was described in by alcohol policy participants and by midwives themselves as fundamental to relationship-building between midwife and pregnant women, where the aim is to build a trusting partnership. Such a context would be more in line with a rights-based approach to information-giving, with risk on information provided but where the choice of the women is respected. Midwives and parents recognised that the contradiction raised by the absolute nature of the guidance could lead to self-censorship, in some cases midwife-advised self-censorship (by way of example, one participant in the new mothers group spoke of being told by her midwife not to disclose former recreational drug use). The contradiction was also perceived to risk a loss of trust between the midwife and the mother. Managing the contradiction could become an ongoing challenge for women who choose to continue drinking.

While midwives were happy with the abstinence message for women who knew they were pregnant, they found conversations with women who had drunk alcohol before discovering their pregnancy more challenging. A dissonance arose from an understanding that, on the one hand, they were expected to warn mothers of the potential harm that had been caused by drinking, while on the other they were expected to provide unevicenced reassurance that drinking in the early weeks was unlikely to have caused damage to the baby.

We have to be open and honest with them, and have to say, *'This is what the guidance says, it's unlikely you've caused any problems, but we don't know'*. And we have to just be transparent.

Group 2 - Midwife.

Communicating guidance from a parents' rights perspective

Third sector participants saw their communication role in different terms to that of a midwife operating in a clinical setting. These participants strongly favoured providing expectant mothers with opportunities to consider the complexity of the evidence, based on principles of respect and of providing the conditions for informed choice. They agreed with members of the midwifery group that different parents wanted different degrees of complexity, and sought ways to meet these varying needs – including by layering the complexity of available information:

I suppose the way we try and present information is respect an individual to make a decision for themselves. I do feel like for some parents you just want to be told, *'Do I do this, or do I do that?'*. Some people just want... for others, they do want to know everything, so if they've made this decision they want to know all the evidence behind it. All the reasoning.

Group 3 -Third sector participant

Participants in the third sector, midwife and new mothers groups felt that the abstinence message could be more respectful and more effective if it was reframed in terms of the potential positive benefits of abstinence for the woman herself. Bringing the woman's own health needs to the fore, rather than emphasising 'giving up' drinking for the sake of the baby alone.

The focus is always ... well, I guess quite rightly, on the baby's development, and you're just the vessel. But you should be ... everybody should be looking after you and people thinking about your ... that message as well – *'This is about you as well!'*

Group 3 – Third sector participant

Mediation of guidance by social network members

Participants in all groups recognised that official guidance was only one of many competing voices that could be significant in drinking decisions for pregnant women, with interpersonal relationships and social networks often acting to counter formal recommendations. In groups 1 and 2, policy professionals and midwives both stated that women were being advised not to seek out further information that could complicate the, otherwise simple, abstinence message of the CMO guidance:

...not to google anything. Because they google everything and then they get frightened even more. To come to us to speak about it only, and not to google it.

Group 2 - Midwife

This belief in the benefit of controlling the flow of information was challenged by one midwife as both paternalistic and unrealistic in a modern context, where other information sources are readily available. This impossibility of controlling competing sources was illustrated by one mum, who described a Facebook group that was highly influential in her decision making and provided a forum to reassure that the guidance was meant for 'others'.

I did [drink all the way through] and I knew that the guidance had changed as well. Only because I am on a Facebook group with 77 other women who were having babies at the same time. So nothing got past us. Anything about babyhood was posted on there and it was amazing. So we'd gone out of our way to find out... and then there was a lot of discussion and the thought that it might be about a need to safeguard vulnerable women, less well educated women, which might not understand what two units even are.

Group 4 – New mother

It was widely acknowledged that official public health guidance was impacted by competition from significant others in mothers' social networks. Participants referred to 'old wives tales', such as red wine being beneficial or the iron in Guinness being good for pregnant women.

This is a tricky subject in general as well, because of historic experience. So everybody has stories about ... my mum ... people drank all the way through your pregnancy and you're fine.

Group 3 – Third sector participant

I think that fits the generational aspect of it, because if you look at other issues, like breastfeeding, we know that women listen to a lot of other people besides the health professional. And the health professional is usually quite low down on that list.

Group 1 – Alcohol policy participant

Mothers themselves recognised that their decisions were influenced by the advice and experience of friends and relatives, which were often more prominent than discussions with midwives:

Generally, you hear what other people have done. Experiences of friends and family when they are pregnant. '*No. I didn't drink at all*' or '*No. I had one or two at events and that*'. I tended to go with what other people were

saying and I made a decision based on that, rather than looking for specific guidance. I didn't know it had changed.

Group 4 – New mother

Mothers also recognised the social difficulties that arose from following changed guidance in a social context where significant others had experienced a different advice landscape and against a backdrop of uncertain evidence. Taking a different decision to that of friends and family could be awkward. Women feared that they might be seen as judging the choices of others.

...it's very awkward for you to say, 'Well, actually, your daughter looks lovely, but I'm not going to drink'. And then my sister had a friend whose baby was conceived when she was at the work Christmas party and, you know, as drunk as she'd ever been and I remember my sister saying, 'Well, so-and-so did it and, you know, her baby is fine'. Then you can't really say anything because you're looking at their baby

Group 4 – New mother

3.4. Abstinence guidance and the social context for drinking

Interpersonal relationships and social networks were significant in mediating guidance messages by acting as competing voices. This section further discusses the role of these relationships in impacting adherence to guidance within social drinking contexts.

Abstinence and social network drinking

Participants agreed that social drinking was a deeply embedded cultural practice and that most women enjoyed a drink from time to time. Those in the third sector practitioner and new mothers groups discussed giving up drinking as a social loss to the mother, exacerbated where soft drink alternatives were presented as lacklustre and second best. For example, new mothers discussed their experience of being served soft drinks in less attractive glasses. Participants tended to weigh the potential loss of personal enjoyment of drinking, and of other behaviours restricted in pregnancy, against advice to abstain.

You're certainly weighing up. If I drink red wine or coffee or eat chocolate or whatever it is, you're saying it's going to have all these negatives. Mmmmm. Would I rather enjoy myself and have all these benefits or not enjoy myself? There seems to be two sides to it all.

G3 – Third sector participant

It was difficult for women to avoid social drinking even if they planned to do so, with special occasions positioning the non-drinker outside the celebration. This had the

effect both or of reducing the woman's own enjoyment and causing tensions with contrasting views held by significant others:

I was at Christmas, we spent it with [partner's] family, his cousin is a GP and she's had three children, she said, *'I didn't drink a drop with the first, I drank a little bit with the second, I drank probably more with the third ... and he's alright'*. And there I am with like a glass, and the champagne goes 'round. And my mother-in-law's like, *'Oh, she says it's alright, and she's a GP'*.

Group 4 – New Mother

In contrast, several participants felt that the clear abstinence guideline was helpful for mothers a UK context of widespread social drinking; particularly given that historically drinking in pregnancy has been normalised, so that influences from older generations tend to work in the opposite direction to guidance to abstain. Several policy and practitioner participants felt that a clear abstinence guideline made it easier for mothers to resist social pressure to participate in drinking when they would prefer to abstain.

The partner saying, *'Oh, you can have this, you're okay, one won't harm'*. Where if it's 'NO', it's very clear.

Group 2 - Midwife

If you're around a lot of social drinkers who would say, *'Well, go on. You can have one. You're allowed one while you're pregnant'*. Whereas, *'No alcohol; No risk'* is clear message, it's something clear that [mothers] can then put over.

Group 1 – Alcohol policy participant

There was no evidence from the new mothers or third sector practitioner groups that the abstinence advice was prompting a broader lifestyle change, though some participants noted that the changes of lifestyle associated with having a baby had been a sufficient disincentive to drinking. On the whole, new mothers tended to view the advice to abstain as one of many short-term sacrifices – alongside restricted foods – to be endured temporarily for the sake of the baby, rather than a permanent life-style change.

Just an interlude. Talk in our NCT class about bottle of Champagne in the fridge for as soon as the babies are born. But, of course, none of us felt like it... There is a picture of my mum having a big piece of cheese cake after the baby is born.

Group 4 – New mother

Abstinence and partner drinking

Participants in all four groups referred to the role of partners in mediating mothers' drinking decisions. Third sector participants and mothers suggested an opportunity was being missed in that the guidance only targeted pregnant women and was not addressed to partners. Midwives observed that guidance targeting couples would be in line with current practice of opportunistically engaging partners in antenatal discussions:

Any health behaviour change that we want the woman to make, we talk about the partner and the wider family being involved in it, because we know that they're far more likely to be successful in doing that.

Group 2 - Midwife

New mothers discussed the sense of unfairness they felt from their partners being able to continue to enjoy alcohol while they had had to refrain. Examples included the assumption that they would be 'Designated Driver' on nights out, watching their partner finishing a whole bottle of wine that they would previously have split between them on a night in, and finding themselves feeling miserable and extra sober in the context of partners' drunkenness. Women sometimes struggled to communicate this impact to their partners:

My husband [...] would say, '*There is no medical reason for me to give up drinking*'.

Group 4 - New Mother

Partners' drinking choices also impacted directly on women's ability to abstain from drinking. For example, one mother said that her partner was unhappy to continue socialising in the pub with their group of shared friends if she was not going to have a drink herself. Another described her experience of her partner ordering a bottle wine in a restaurant early in the pregnancy, which meant she had to repeatedly prevent the waiter filling her glass, leaving her feeling uncomfortable that she had tacitly revealed her pregnancy to a stranger.

Participants in the midwifery, third sector and new mother participant groups felt that the guidance could have done more to encourage partners to reduce their own drinking as a way of demonstrating emotional support. NCT practitioners suggested that such messages could tie in with a process by which partners become emotionally involved in the pregnancy, encouraging feelings of making the transition to parenthood together. Another suggestion - from the new mothers group - was that existing public health messages around temporary abstinence could tie in encouragement to partners to support pregnant women by changing their own behaviour:

All that publicity that's being done on Stoptober and Dry January. They could put in some messages, '*Here are some reasons you could give up alcohol... your partner's having a baby. Why don't you both try not having a drink?*'

Group 4 - New mother

3.5 Abstinence, pregnancy planning and surveillance

This section presents discussion of the difficulties in adhering to abstinence recommendations, in relation to decisions on planning and disclosing pregnancy. The practicalities of the current guidance are considered, along with contrasts between lay and official knowledge of alcohol impacts.

Before you are pregnant

The advice to abstain from drinking if planning a pregnancy was controversial in all groups. Parents, third sector participants and policy makers pointed out that women often spent many years trying to become pregnant, and that long-term abstinence could represent a significant curtailment of enjoyment.

Yeah, I think you know you shouldn't drink as much... but it's really hard to think '*I shouldn't drink so I won't.*' Whereas, if it's just this time. We planned our pregnancy around going to festivals and I would think, '*As long as I can drink at festivals...*' But then, once we'd done that we could try and get pregnant.

Group 4 – New mother

The length of time window over which a woman might become pregnant was also discussed. Some participants felt that abstinence in pregnancy was justified precisely because it was for a defined and temporary period in a woman's life. The inclusion of pre-pregnancy risked this justification being stretched to breaking point, with some women potentially in a position where they were abstaining for decades.

How far down the line do you have to go? Do you say, '*Don't drink at all if you're of childbearing age?*' That's the whole of your twenties and thirties! That's almost a lifetime. If there's a chance that you might become pregnant, I don't think women think that far in advance.

Group 1 – Alcohol policy participant

Before you know you are pregnant

Participants in all groups agreed that an assumption that every pregnancy is (or should be) planned, underpinned the guidance. Several midwives felt that had merit in being congruent with wider aspirational public health goals for more women to be healthy and prepared for pregnancy, including being a healthy weight and non-smoking, and to envisage pregnancy as a foreseen life-event:

So, I think we've got a responsibility to ensure that people are aware of life events, coming down, further down the line, but they're aware of them.

Group 1 – Alcohol policy participant

However, it was commonly felt that an assumption of planned pregnancy was incongruent with many women's experience of actual 'pregnancy planning' and was therefore unrealistic. Midwives, parents and third sector workers agreed that pregnancies carried to term tended to occur along a spectrum from highly planned to complete surprise, with a wide band of *'if it happens it happens'* and *'a happy accident'* in between. This made it difficult for many women to operationalise the guidance even if, in retrospect, they would prefer to have done so.

The primary area of difficulty was that women often did not know that they were pregnant at the time when they were drinking. Participants in all four groups told personal stories of having inadvertently drunk alcohol in early pregnancy and discussions across groups confirmed that discovering a pregnancy after a session or several sessions of heavy drinking was a common experience for UK women,

From a personal perspective, I think it's challenging and it's quite a sensitive topic. I myself was nine weeks pregnant before I found out [...] and I did have two occasions of what I guess what you would call binge drinking in that I went on a hen night and had quite a few cocktails and then I was on holiday when I conceived my daughter, and obviously I was drinking that entire week. [...] When I found out I was pregnant I did think, *'Oh, I hope that didn't have any impact'*.

Group 1 – Alcohol policy participant

Third sector participants and parents felt that even if women did actively intend a pregnancy, abstinence guidance could still be difficult to stick to if becoming pregnant took a very long time. Participants concurred that, as drinking is such an integral part of social life, an ill-timed binge could be difficult to avoid.

We found it really hard and I actually went to a fertility expert, and he said to me, *'You're going to have to have an operation and come back'*. Um... so it was another month. I had a wedding when [my period was due]. I did a pregnancy test, and it was negative, and I had told I was going to need an op. So, I thought, *'Well, I can't be pregnant'*. So, I got completely sloshed at my friend's wedding. Woke up the next morning. Still hadn't come on. So, I did a pregnancy test and it was positive. So, I was like, *'Arghh, no!'* And I'd literally spent 18 months really cut down my drinking, I didn't stop, but I had, like, only a few glasses of wine, where before I might have had like half a bottle... so I did find myself in that situation, and I thought, *'Sugar, is it going to have caused problems...'* and we just went on the thing that, well, what can you do about it now?

Group 4 – New mother

Official guidance that early alcohol consumption is unlikely to cause harm was felt to be in conflict with a belief held by participants across all groups that harm would

be more likely in the early weeks of the pregnancy, particularly if consumption during this period was high. All groups discussed the likelihood that abstinence guidance could raise levels of anxiety among women who had drunk alcohol before knowing they were pregnant, with a Group 3 participant reporting that anxiety over drinking in early pregnancy was a common reason for calls to the NCT helpline. Concerns were expressed that this anxiety could be exacerbated by simplistic media reporting:

I hope it doesn't happen that you get those kinds of headlines where it says, 'X number of women *admit* to drinking in pregnancy'. [...] the effect of saying, 'Oh women, if you read this and you've had a drink, then feel afraid, feel very afraid...'

G1 – Alcohol policy participant

Tell-tale signs

Parents and third-sector participants pointed out that abstinence was a strong social signal of pregnancy and that if alcohol was avoided entirely it could be tricky for women to avoid disclosing a pregnancy before feeling ready to do so. For women who are trying for a baby, the 'tell-tale' sign of not drinking could be particularly uncomfortable, leaving them feeling exposed and under-scrutiny, without any of the benefit of actually expecting a baby:

If you're not drinking because you are pregnant then you are in some kind of nice pregnancy club, and then if you're trying... well, then you've got friends around thinking '*So-and-so's not had a drink, I wonder if she's pregnant*', and that sort of thing.

Group 4 – New mother

Anxiety over giving away a planned or actual pregnancy was acute in relation to social drinking occasions with colleagues. In this context women feared tacit disclosure of pregnancy as a result of obvious non-drinking would impact on status at work. New mothers described a range of strategies employed, with varying success, to hide non-drinking, including avoiding social occasions altogether, making up spurious reasons for not drinking and disguising soft drinks as alcohol:

The tell-tale sign to all my friends when I was pregnant, they spotted that I wasn't drinking. [...] I felt ... odd. Before I wanted to tell anyone, they knew. I'd stopped going out, or I was making up odd things about why I wasn't drinking...

Group 3 - Third sector participant

Social policing of drinking

Several participants described having received unsolicited comments from others – including strangers – about their decision to have a drink in pregnancy. Several participants in the midwifery group believed that this may be part of what the guidance was intended to achieve; in others words, that social pressure was an intended mechanism for achieving guidance compliance.

... I might feel guilty as a drinker, the other is that other people ... I might feel shamed by other people, and those are positive reinforcers.

Group 2 – Midwife

However, most saw such actions as an unwelcome unintended effect. They also saw intervention of others as an extension of a wider cultural belief that commenting on what pregnant women should and should not do is an accepted and normal part of life.

New mother participant: Yeah. I've had, *'You shouldn't be having that, should you'*. I'm like, *'I'm going to have a bottle of beer. It's fine.'* Or, if I was like, out having a glass of wine somewhere, at a gig. And someone I kind of knew, but not that well, and she was like, *'Well, you shouldn't be doing that should you?'* [She] looked at the bump, looked at the glass of wine. And I was like, well, *'One glass of wine, that's all I've had this week'*, and she was like, *'Still shouldn't have it, should you.'* And I was like, didn't really know her that well, and I was like, *'Cheers for that'*.

Heather: So, almost like, people feel they have a right to get involved.

Participant: Yes, of course they do. Soon as you're pregnant... people can say anything.

Participants tended to believe that the logo designed to support communication of the guidance (Figure 1) reinforced the idea that commenting on women's drinking behaviour was acceptable and that social stigma for women who chose to drink was appropriate.

Yes, and to feel it's somebody's right to go up to a woman and say, *'You can't do that! You shouldn't be doing that! Think of your baby!'*

Group 3 – Midwife participant

There's the stigmatisation risk, which is that women who are seen to be drinking or are drinking themselves, there's a risk of social stigma and someone coming up to you in a bar saying, *'What are you doing drinking?'*

Group 1 – Alcohol policy participant

Third sector and new mother participants were concerned that the logo made it look as though it was *illegal* for a woman to have a drink and that such prohibitive measures were applied inconsistently. These participants also tended to feel that the logo was disproportionate in relation to other risks. They questioned why there was no equivalent logo for risks associated with drinking in the general population and for other known pregnancy risks:

You don't get that stamped on cheeses, do you? On the basis of the evidence that sign should be stamped on everything for everybody, a red sign with a line through it.

Group 3 - Third sector participant

3.6 Benefits and drawbacks of abstinence guidance

In terms of overall evaluation of the likely impact of the guidance, participants in all groups had mixed feelings – though midwives were more likely to assess the guidance as being helpful overall (See **Table 1**).

Some participants felt that future children would be bound to benefit as the guidance, if followed, effectively minimises the risk of harm from alcohol to zero. Others believed that the impact on the health of the foetus would be negligible as they believed the guidance would not reach women before they knew they were pregnant and would be unlikely to reach heavy drinkers. Participants tended to think that some women appreciated a clear and simple message, however, others believed that many women who would prefer the information to incorporate greater complexity. Many participants felt that the clear abstinence message was unduly restrictive, encouraged shaming and social policing, risked 'harm' in the forms of irresolvable anxiety about early stage drinking and would also lead to unintended disclosure of pregnancy. Some participants saw the advice as an opportunity for health education for a new family, however, others felt that this aspiration was unrealistic in the context of wider social drinking norms. Several participants were concerned that the application of the precautionary principle might be working to undermine the credibility of public health guidance in general.

Table 1: Summary of elicited benefits/ dis-benefits

	Perceived benefits	Perceived dis-benefits / no impact
For the foetus	<p>The advice will reduce foetal harm:</p> <ul style="list-style-type: none"> Any amount of alcohol <i>may</i> harm the foetus. All alcohol-related harm to the foetus from alcohol will be eliminated if women follow the advice 	<p>The advice is unlikely to be effective in reducing harm from drinking alcohol in pregnancy:</p> <ul style="list-style-type: none"> No evidence of harm at low levels of drinking, previous guidance was sufficient Women who drink before they know they are pregnant will not be affected Guidance does not target the behaviour of dependent drinkers Alcohol use is already reducing among younger mothers
For the mother	<p>The advice is clear and easy to follow:</p> <ul style="list-style-type: none"> A simple do/ don't message is easy to understand It is easier to cut out alcohol than to cut down People underestimate how much they drink and don't understand unit sizes Mothers who are concerned that they might find it difficult to stop drinking have a clear opportunity to disclose and to access the support they need The advice is a helpful trump card for women who feel socially pressured to drink in pregnancy 	<p>The advice is partially unactionable and causes some harm:</p> <ul style="list-style-type: none"> Causes anxiety among mothers have consumed alcohol before they knew they were pregnant. Causes new mothers to feel they have 'failed' before their parenting journey has begun. The advice effectively forces premature disclosure of an intended or actual pregnancy The advice takes no account of the loss of social and well-being 'benefits' from drinking, this loss is extended by coverage of pre-pregnancy consumption, especially for mothers who have fertility problems The advice is unduly stigmatising of women who do not follow it and leads to social policing of women's choices
For the family and social network	<p>Teachable moment for new parents:</p> <ul style="list-style-type: none"> The advice to abstain will trigger a longer-term behaviour change at a teachable moment, this will have longer term benefits for the whole family 	<p>The advice has a poor fit with mothers' family and social network context:</p> <ul style="list-style-type: none"> Does not address partners' drinking behaviour Does not address the beliefs and decisions of other family members Does not address culture of 'special occasion' drinking

		<ul style="list-style-type: none"> • Is unrealistic in relation to the all-pervasive role of alcohol in our society • Will be treated as a temporary measure
For the health professional	<p>The advice is clear and easy to communicate:</p> <ul style="list-style-type: none"> • Women are not equally capable of making sense of nuanced advice • Women are used to receiving clear 'do/don't' messages in pregnancy, an abstinence message is consistent with this approach to advice giving • Advice will be consistent from all sources • Women who find it difficult to stop drinking can be appropriately referred • The advice can be nuanced appropriately in conversation with the mother 	<p>The advice is muddled and unlikely to underpin effective conversations:</p> <ul style="list-style-type: none"> • The advice from health professionals is muddled by conflicting messages from other sources. Women learn from social media and from their existing social networks. • In practice, the abstinence message is not always delivered by health professionals and nuanced conversations do not always accompany delivery. • The tension between a harm message and a don't worry message can lead to mothers receiving inappropriate reassurance • An abstinence message may undermine the relationship between the mother and the health professional if she feels she can't talk about her decision to continue drinking
For public health policy	<p>Wider public health / public understanding of science benefits</p> <ul style="list-style-type: none"> • Behaviour change in pregnancy can set the tone for a healthy parenting style • Potentially, improves public understanding of science, including that absence of evidence for harm does not equal lack of harm. 	<p>Harm to guidance credibility</p> <ul style="list-style-type: none"> • The lack of evidence of harm at low levels of drinking undermines the credibility of this guidance and, by extension, of all public health guidance • Failure to present absolute risks undermines women's decision making and makes it difficult to weigh advice about different sorts of risk in pregnancy

SECTION 4: DISCUSSION: RECOMMENDATIONS FOR GUIDANCE COMMUNICATION

The final section summarises key messages from this research and recommendations for enhancing reach and effectiveness of current guidance on alcohol and pregnancy, based on review of key documents and views of participants. We make six recommendations that can be utilised as a 'filter' of considerations for the development and dissemination of advice on alcohol and pregnancy.

1. Communicate the rationale for underpinning principles, including the precautionary principle

Guidance for pregnant women is underpinned by a different level of evidence to guidance given to the general population contained within the same document. The reasons for these differences, including adoption of the precautionary principle for pregnant women, are not explained clearly enough to avoid ambiguity for recipients. This results in message recipients developing their own explanations, which may not match the intentions of those who developed the guidance.

The evidence on harms from drinking at low levels in pregnancy is less clear than for heavier consumption. This should not preclude efforts to follow best practice in risk communication. The National Institute for Clinical Excellence (NICE) Expert Paper on risk communication (Sutton [no date]) defines the key components of risk messages as: information on the probability and severity of an outcome; information on recommended behaviour to avoid the risk. These components encapsulate the aims of public health guidance to both inform and to prompt behaviour change. Sutton outlines various means of communicating risk effectively, based on available evidence of impact, and suggests primarily that guidance must acknowledge that there are multiple drivers for behaviours, meaning assumptions over what type of information will lead to change may be flawed.

Drinking behaviour is impacted by multiple information sources and interpersonal influences, and guidance is also mediated by professionals tasked with communicating key messages. This suggests that a 'one-size-fits-all' approach to communication will have limited impact.

Recommendations:

- Ensure transparency, so that the rationale for employing a precautionary principle as opposed to taking an informed choice approach is clear in the guidance document and supporting information.
- The communication strategy should clearly articulate evidence of harm from heavy drinking in pregnancy and should be open about areas of uncertainty.
- Ensure guidance communication strategy adheres to existing risk communication standards and aligns with a wider agenda to improve public understanding of science.

2. Layer explanations: Communication and message complexity

The guidance prioritises clarity over accuracy. However, a 'clear' message will never be entirely clear if the evidence base is uncertain. Public health professionals cannot control the supply of information on any public health issue. Expectant mothers will seek out and receive information from multiple sources and make use of this in behavioural decisions. Communication strategies should take account of variation in mothers' information needs and should seek to align with the broader communication agendas of influential message mediators.

A message that prioritises 'clarity' over nuance is consistent with an assumption that the target population is struggling to integrate nuance into their own decision-making; it has been argued that this is a form of paternalism, which undermines the autonomy of individual women (Gavaghan, 2009). Our findings suggest that while some mothers like the 'clarity' of an abstinence message because it simplifies their own choices, others would prefer more 'accurate' information than is currently available in the guidance. For example, they want to know whether drinking is more harmful in early stages of pregnancy than later and about the evidence of impact from drinking alcohol while breastfeeding. They want to know about the uncertainty in the evidence around risk of drinking at low levels and are interested in the controversy surrounding interpretation. Such interest does not appear to be incompatible with individuals making personal decisions to take a 'better safe than sorry' approach, in line with the conclusions of the guidance panel, once the evidence has been considered.

There is a need to consider the role of health professionals in mediating the guidance. A communication strategy should relate to existing approaches used by health professionals when talking with mothers. While some health professionals favour 'clarity' in their communication with women, they also recognise challenges in integrating a 'clear' abstinence message with an ambition to provide a person-centred approach antenatal care. Health professionals also experience challenges and in marrying the warning of 'serious harm' from drinking set out in the guidance with advice to reassure women who have already drunk alcohol before they knew they were pregnant. In the absence of a communication strategy covering their role, maternity care staff will tend to draw on their own values, experiences and perceptions of women to guide their approach to communication, making personal judgments about the different capacities of different mothers to decide for themselves. It is unrealistic to assume that health professionals will be able to adequately nuance a message for all expectant mothers in their individual consultation sessions.

Parent support organisations may struggle to align an approach which elevates 'clarity' over 'accuracy' with their 'respect' agendas, and may resist giving women a message that they feel is over-simplified. Such organisations may feel compelled

to ensure that there is an opportunity for users to engage with complexity. Health professional bodies and third sector organisations may need to consider strategies to facilitate communication of complex messages. For example, public health and relevant third sector organisations could work together to develop a layering approach to evidence presentation, enabling users to access information to a depth that suits their own needs.

Recommendations:

- A guidance communication strategy should better reflect the complexity of the message, enabling parents to access information to a depth that suits their needs and advising professionals on how best to facilitate this. Consider options for layering communication of the evidence, to meet the different information needs of different parents.
- The contradiction in guidance between 'worry' and 'don't worry' in relation to early drinking should be acknowledged and clearer guidance for professionals on managing conversations on this should be developed.
- Consider inclusion of postnatal advice on alcohol in guidance alongside pre-pregnancy and pregnancy messages as well as through current channels.

3. Ensure congruence with the reality of pregnancy 'planning'

The guidance on abstinence during pre-pregnancy is underpinned by an unrealistic assumption about the level of planning associated with 'typical' pregnancies. In the UK, pregnancy 'planning' occurs along a spectrum. The reported 'unplanned' pregnancy rate is around 16%, with a further nearly 30% of mothers indicating that they were 'ambivalent' about whether their pregnancies had been planned (Wellings et al. 2013). Even in cases where pregnancies are desired and fully anticipated, the process of becoming pregnant can occur over extended timescales, lasting many years for some women. As one of our participants indicated, even extensively planned pregnancies can occur as a surprise.

A spectrum of planning behaviours and the potentially lengthy timescales involved in becoming pregnant problematise adherence to alcohol in pregnancy guidance. Public health professionals sometimes seek to resolve this dilemma by extending the focus of the guidance from alcohol consumption to encompass unplanned pregnancy, as, for example, in this statement,

There are two ways to avoid alcohol harm to your baby: don't drink while pregnant or if you're not ready to give up alcohol, make sure you don't get pregnant and are using an effective form of contraception.

Director of Public Health (DPH) for NHS Greater Glasgow and Clyde
(BBC News, 2017)

Communication strategies carefully consider the risks and benefits of this potential for scope creep and should recognise that in a context of widespread social

drinking, advice to abstain in 'pre-pregnancy' will be difficult for many women to adhere to, placing the guidance in risk being seen as over-reaching. Realistic messages should be incorporated into wider public health messaging on healthy lifestyles for the general population.

Recommendation:

- Public health guidance for women in pregnancy should take be congruent with the lived experience of 'pregnancy planning' and should reflect that pregnancy occurs in the context of a spectrum of 'planning' behaviours.
- Review communication approach to ensure that unrealistic assumptions are not being made in relation to the target population behaviour.

4. Clarify intended change mechanisms in the communication strategy and avoid social shaming

Intended mechanisms for change underpinning the guidance should be clearly articulated. Communication strategies should acknowledge the limitations of a purely guidance-led approach to message communication (exemplified by evidence of the impact of Australian guidance).

It is important to recognise that public health messages to pregnant women are delivered in a moralizing media discourse (Lowe *et al*, 2010) and a wider culture that tends to take for granted that pregnant women have a duty to minimise all risks to their foetus, at every opportunity and that '*everything the pregnant women does and feels (or does not do and does not feel) will impact on the foetus, for better or worse*' (Lee, 2014, p.131). In such a context guidance to abstain from drinking exposes pregnant women who do drink having their behaviour policed and feeling shamed for their decisions. It should be clarified whether shaming and indeed *policing* of women's behaviour is an *intended* mechanism for change (as some of our participants assumed). In light of women's negative experiences of these mechanisms in action, and is important to also carefully consider consequent unintended impacts of guidance, including potential for increased parental anxiety, inducing feelings of low self-worth and undermining mutual support.

Positive message framing, with focus on what is gained as well as what may be at risk, is also recommended for trialling with message recipients. Evidence suggests that gain-framed messaging can be more effective in encouraging some health prevention behaviours than negative messages (Gallagher and Updegraff, 2012), including higher intention to prevent FASD (Yu *et al.*, 2010). Although negative, loss-

Recommendations:

- Guidance communication strategies should be explicit about their intended mechanisms for change.
- Communication strategies should be reviewed in light of their potential to facilitate unintended mechanisms of shame, shaming and policing. Steps to reduce acceptability of shaming and policing should be taken, including advise to health professionals on more effective tools for managing conversations with women and, potentially, family members.
- Consider trialling positive message framing to include 'no benefits to baby' and benefits of abstinence to mother and, potentially, to significant others to be congruent with broader public health goals.

based, messaging may be preferred by health professionals, it can be less impactful for the general public (Wansink and Pope, 2015), reflecting findings here and suggesting that some women may respond more favourably to framing of not drinking as a 'temporary interruption' with associated benefits. To limit risk of causing anxiety, it may be beneficial to avoid fear messages, unless they are accompanied by support aimed at increasing perceived self-efficacy to change behaviour.

5. Address wider social constraints to individual-level decision making

The British Medical Association suggest that addressing alcohol-related harms, including FASD, should involve addressing high population consumption more broadly (BMA 2015), that the overall drinking culture should be considered when developing prevention approaches. As it stands, the guidance situates responsibility for foetal health with individual women, who are conceptualised as potential alcohol consumers making individual-level choices about how much to consume, and who are wholly and solely responsible for the health of their future children.

The guidance applies an individual biological solution to a complex ecological social problem. Not drinking is socially unusual in UK culture and for many women a period of abstinence is associated with some loss of pleasure and identity for drinkers, particularly if they do not receive social support for their decisions. Women's decisions are constrained and influenced by these wider social norms and also by the drinking behaviour of members their immediate social network and especially of their partner.

Current guidance does not address partners as key players in decision making. Partner behaviour has a strong influence on maternal drinking behaviour, our participants believed that having your partner or buddy alongside when attempting behaviour change can be helpful. Participants shared an understanding that if partners were also advised on why their drinking is relevant that this would be helpful in reducing likelihood of drinking both at home and at social events, as well as enhancing sense of shared responsibility for the pregnancy.

Recommendations:

- Recognise that abstinence from alcohol can be culturally challenging in a UK context and may be perceived as a social loss for some women
- Embed guidance in a framework of promotion of periods of benefits of periods of abstinence to the general public
- Consider a social network message to address role of partner and immediate family members' *own behaviour* in relation decision-making, including providing evidence of the role of social support in behaviour change. Such an approach would need to take account of the negative impact of social policing on women's experiences of pregnancy.

6. Research the social impact of messaging as part of guidance development

Although this research was relatively small-scale, it revealed several aspects of the guidance which women found difficult to interpret or challenging to operationalise. Incorporating existing research into the lived experience of women planning a pregnancy, the social drinking context of expectant parents and the impact of guidance not to drink in other national contexts might have revealed these problem areas and ensured that they were addressed more comprehensively in the communication strategy.

Recommendations:

- Qualitative research to understand the lived experience of women should be incorporated in the guidance development process, including pre-testing of messages to identify perceived validity in 'real-world' social drinking, pregnancy planning and pressured parenting contexts. Where problems are identified, unintended negative effects and alternative message framing should be considered.
- Include pre-testing of messages with target audiences to identify unintended negative effects and consider message framing accordingly.

Study strengths and limitations

This study adds to the literature on the impact and effectiveness of guidance on alcohol and pregnancy and makes practical recommendations for more effective message communication going forward. A strength of the study is that participants were represented from a range of roles, all having direct experience of the guidance. Thus the research balances and combines multiple perspectives on the complex issues involved communication and receipt of guidance, and incorporates a breadth of insight. Recommendations are likely to be relevant to development and dissemination of public health guidance more generally.

This research was a small qualitative study, drawing on a convenience sample of participants. A complete range of beliefs and behaviours in the wider population may not be represented. Further research may be needed to examine the issues identified here with wider groups of professionals and with mothers from a broader range of socio-economic backgrounds.

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APPENDIX 1 – PARTICIPANT INFORMATION SHEET



Research project: Identifying issues for consideration in devising and communicating alcohol guidance for expectant and new mothers

Who is doing the research?

This research is being undertaken by the DECIPHer research centre, Cardiff University, in partnership with Alcohol Concern Cymru. It is funded by Alcohol Concern Cymru. The project is being run by Dr Rachel Brown and Heather Trickey.

What is the purpose of the research? This research aims to explore the basis of current guidance on alcohol consumption during pregnancy to consider any limitations in impact, content and communication. We aim to work with a range of stakeholders to explore how issues around the development and distribution of guidance, giving consideration to how this may be improved.

What will it involve? We are inviting you to take part in a participative and collaborative workshop, which is audio recorded for later transcribing. We will begin the session by presenting key facts and issues relating to current guidance arising from our evidence review. We will then ask members to reflect on current messages and to consider and discuss alternatives. The aim is to develop suggestions for future guidance and health promotion activity on alcohol use in pregnancy.

Confidentiality and protection of participants All information collected as part of the research will be strictly anonymised so that no people or organisations are recognisable, unless you request otherwise. Content of the sessions will be used in publications, in both a final report to Alcohol Concern Cymru and in academic journals, conferences and other proceedings. Workshops will be audio recorded for accurate transcription and interview recordings will be retained for 2 years from

the date of publication, and held on a secure password-protected university server. The Data Protection Act will be adhered to for the storage of all written and electronic material, meaning it will be securely stored and only accessed by the researchers. The project has been approved by the Cardiff University School of Social Sciences Ethics Committee.

Consent from participants The aim of this information is to ensure you feel fully informed about what would be involved and to allow you the opportunity to ask questions prior to agreeing to take part. If you decide to participate, you will also be asked to sign consent form at the start of the workshop for our records.

Contact information: If you would like any more information about the project or have any questions, please contact:

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02922510090

Heather Trickey
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APPENDIX 2 – PHOTOS OF ACTIVITIES

