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RESEARCH REPORT

Alcohol use during pregnancy in the Eastern Cape: Research in support of FASfacts intervention

For the Eastern Cape Liquor Board

Submitted by the Critical Studies in Sexualities and Reproduction research programme
Rhodes University

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Alcohol use during pregnancy in the Eastern Cape: Research in support of FASfacts intervention

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Critical Studies in Sexualities and Reproduction

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Executive summary

This research, funded by the Eastern Cape Liquor Board, was conducted in support of the FASfacts intervention in Buffalo City. The FASfacts intervention has both a community education component and a support for pregnant women component. The community education component consists of the Train-the-Trainer Programme, aimed at community leaders and volunteers who are trained as facilitators to create awareness and educate community members. The Pregnant Women Mentoring Programme (PWMP) supports pregnant women in abstaining from substance use during pregnancy and whilst breastfeeding by providing them with a lay counselling service focused on education, emotional support and motivation.

In order to address the dearth of research on alcohol use during pregnancy in the Eastern Cape and to support the implementation of the FASfacts intervention, a range of quantitative and qualitative studies were carried out by the Critical Studies in Sexualities and Reproduction research unit of Rhodes University. In this report, we outline findings from each of the projects.

Project 1 consisted of a baseline and end term survey of drinking amongst antenatal clinic users in selected wards of Buffalo City, including the sites of the intervention. Project 2 was a qualitative research study using narrative methodology, which focused on the micro-level and macro-level networks that serve to either enhance alcohol use or support abstinence from alcohol during pregnancy. Project 3 consisted of a formative evaluation of FASfacts, providing input over a four-year period in order to maximize the effectiveness of the programme.

Ethical clearance to conduct all three projects was obtained from Rhodes University, tracking number: RU-HSD-16-05-0001. Permission from the Eastern Cape Department of Health and Buffalo City Metropolitan Municipality was sought and granted. All necessary precautions were taken to ensure that the rights of participants were respected, and that participation proceeded on an informed consent basis.

PROJECT 1

The baseline survey aspect of this study investigated the prevalence and features of drinking amongst antenatal clinic users in selected wards in Buffalo City. After the baseline, wards with the highest drinking prevalence were targeted for the FASfacts intervention. At the end of the intervention, data collection was repeated in antenatal clinics to ascertain whether there has been a community effect in

the reduction of drinking during pregnancy. In this end-term data collection, three intervention and two non-intervention sites were used, with the non-intervention sites forming the control sites.

Within the wards that received FASfacts intervention, individual pregnant women were also recruited into the Pregnant Women Mentoring Programme. The drinking patterns of these women were measured at the onset of their participation in the Pregnant Women Mentoring Programme and again 6 months later.

Baseline study

The research question driving the baseline study was: What is the prevalence of risky drinking, as defined by the different cut-off scores of measures of alcohol consumption amongst pregnant women attending antenatal consultations at clinics in low-resource settings in Buffalo City? Data were collected in sixteen government/public primary health care facilities and clinics that provide maternity services for pregnant women. Consecutive sampling of participants was used (i.e. all willing pregnant women who attended the clinics). The sample of 995 comprised of pregnant women attending antenatal clinics in the selected sites over a nine-month period. Data were collected through the use of a structured questionnaire including the Alcohol Use Disorders Identification Test (AUDIT). A rigorous process of forward and backward translation was used to translate the questionnaire into isiXhosa and Afrikaans. Health service providers were trained in data collection. Researchers visited the sites at regular intervals to provide support and input to health service providers in the data collection. Data were analysed through the use of descriptive statistics.

Two-thirds of the sample reported not drinking. For those who do drink, the large majority drink once monthly or less often. High levels of risky drinking were evidenced: 17.8% of the full sample, or 81% of those who report drinking, as measured on the AUDIT scale. Heavy episodic drinking (six or more drinks per occasion) was reported by 6.8% of the whole sample, or 31% of those who reported drinking.

End-term study

The research question driving this element of the study was: What changes in drinking patterns can be discerned across intervention sites in relation to non-intervention sites following the institution of the FASFacts intervention? The data collection procedure used in the baseline study was repeated at the intervention sites in 2019. Data were also collected at two sites that did not receive the intervention in order to compare any observed changes in drinking. Data collection methods were exactly the same as the methods used in the baseline study. Data collected before and after the intervention at these

sites were compared via chi-square tests of differences in percentage of women reporting any alcohol use and percentage of women scoring 3 or higher on the AUDIT-C (risky drinking). T-tests and analysis of variance (ANOVA) were used to compare mean AUDIT-C scores for all participants, and mean AUDIT-C scores among women who reported having drank.

Results show that overall there was a statistically significant increase in reported drinking in the three intervention sites compared to the control sites. In disaggregating the sites, increases were found in all three, but with sites 1 and 2 increases being non-significant (and hence possibly due to chance). Although participants in the intervention sites were more likely to report drinking than the control sites, the average levels of drinking among those who did drink did not rise.

There was no increase in reported drinking at the control sites. Therefore, the changes observed at the intervention sites are assumed to result from the intervention and not wider social changes that may have occurred between baseline and end-term collection of data.

Three explanations are offered for these findings: (1) the strong focus of the FASfacts intervention on raising awareness may have contributed to a willingness to discuss drinking during pregnancy with healthcare providers in the intervention sites; (2) pregnant women who were reached by the intervention were more likely to engage in drinking than those who were not – having been made aware of the issue of antenatal drinking, these women came to view the behaviour as widespread and 'normal'; (3) at site 3, a new service provider collected the end-term data – participants may have been more willing to report drinking to her. Unfortunately, it is impossible to know how much of the effect is explained by each of these possible explanations.

Pregnant Women Mentoring Programme

In order to evaluate the efficacy of the Pregnant Women Mentoring Programme, AUDIT-interviews were conducted with participants within 2 weeks of starting the programme, and again 6 months later. Data indicates that the participants of this programme successfully stopped drinking during pregnancy. These data must be read with caution, however.

Factors associated with drinking

Data collected at baseline and end-term were pooled, and inferential statistics were used to test whether age, employment, experience of intimate partner violence (IPV), parity, gestation, and alcohol use in the home may be associated with particular drinking patterns.

A small percentage (5.2%) reported experiencing intimate partner violence during their pregnancy. A substantial minority (40.6%) indicated that another person drinks in the home. The following variables

were found to be significantly associated with risky drinking: age; race; cohabitation; report of IPV; and other regular drinkers in the home. Interestingly, employment status, education status, parity and gestation were not associated with risky drinking.

Older age (35 to 45 years) is associated with lower AUDIT-C scores than younger age. Those who live with a partner drink less than those who do not. Those who identify as Coloured drink more than those who identify as African. Those who report IPV during pregnancy drink more than those who do not, and those who report that their partner or somebody else drinks regularly at home drink more than those who do not. Given the small percentage of participants who identified as Coloured and who reported IPV, the associations between these variables and risky drinking must be read with caution, although these results are consistent with other research.

PROJECT 2

The research questions asked in this study were: (1) How do women who have consumed alcohol during their pregnancies narrate the journey of their pregnancy? (2) How do partner and family members of women who consumed alcohol during their pregnancies narrate the journey of pregnancy? To collect the data, individual interviews were conducted with (1) women who drank alcohol during their pregnancies; and (2) the partners or family members of such women. The interviews were conducted according to the narrative method. Convenience and purposive sampling were used. Participants were recruited through FASfacts. A total of 25 participants (women, partners and family members) participated: 12 women, 12 partners/family members, and one participant who fitted both profiles. Only pseudonyms are used in this report. Themes emerging in the data fall within six broad narrative topics: painting personal situations; describing the social situation; explaining and justifying drinking during pregnancy; telling positive stories; and drawing on negative social norms.

Personal situations

Participants spoke about the pregnant women struggling to give up drinking and continuing to drink before and throughout pregnancy. Drinking was described as leading to conflict, with the women using any means possible to obtain alcohol and being untrustworthy. The pregnancies were described as unintended (although not necessarily unwanted). The challenge in terms of FASD is that many women with unintended pregnancies consume alcohol at pre-pregnancy levels prior to knowledge of pregnancy. Stigma and shame were experienced by the women and their families in relation to both the pregnancy, in particular early pregnancies, and the drinking. Stigma and shame regarding drinking during pregnancy led to the women engaging in self-exclusion from certain spaces and surreptitious

behaviour rather than decreasing their drinking. Despite a few isolated examples of misunderstandings (e.g. that Smirnoff is okay to drink during pregnancy), most participants knew and indicated that others knew about the dangers of drinking during pregnancy, with knowledge coming from various sources, including 'Xhosa culture'.

Social situations

Participants referred to a number of social problems that are common features of their lives. Crime was mentioned frequently, including the murder of family members. One participant spoke about the multiple hardships of growing up in a child-headed household. Economic insecurity, and the need to hustle for resources, was also frequently mentioned.

Justifying drinking

In their narratives, participants explained or justified drinking during pregnancy. A major factor reported was the lack of support from partners. This centred on three issues: not providing for the pregnancy and resulting child; cheating or being unfaithful; and denying paternity.

Stress was also mentioned as a major factor in drinking. Stress included fighting between partners, the disintegration of relationships, being diagnosed with HIV, carrying an unwanted pregnancy, poverty, and being in a child-headed household. The shock of being diagnosed with HIV during pregnancy, and the concomitant reluctance to share this news with others is worrying, as such disclosure may be particularly crucial for pregnant women.

Relatedly, trauma was referred to by participants as causing drinking in pregnancy. Traumas referred to by family members, partners and the pregnant women themselves included rape, losing loved ones during their pregnancies through tragic events such as murder, unplanned and unsupportable pregnancies, and intimate partner violence. Women experiencing domestic or intimate partner violence may feel caught in a vicious circle due to societal norms. They may internalise the stigma and consequently not ask for support when they are in need, and because they are afraid of additional violence by their husbands/partners if they become aware of their disclosure.

Participants spoke about the drinking culture in their community and the operation of many illegal shebeens. Within this context the consumption of alcohol is seen as normal and acceptable even during pregnancy. Some women spoke about peer pressure to drink, implying that not to drink means foregoing social recognition in friendship circles.

Positive stories

Family members and partners spoke about providing emotional and tangible support to the pregnant women. Women participants also indicated that they experienced support from some members of their family. Participants also spoke about the support provided by health care providers, the church and traditional healers.

Social norms

A number of problematic social norms were invoked by participants in this research. The first refers to what disability activists call able-ism – the discrimination of people based on their ability and the social creation of barriers to full participation in society by people with impairments. In this research, participants spoke of children with FASD being 'abnormal', a 'failure', 'ruined', and simply 'wrong'. In addition, particular gender norms (for instance, care-work as not being masculine or assertiveness not being compatible with femininity) define particular behaviours as acceptable and unacceptable for men and women.

PROJECT 3

In this project, input to the project team was provided through formative feedback on current research and thinking in public health regarding alcohol use during pregnancy, and on analysis of various elements of the interventions. Qualitative data were collected from the two interventions (Train-the-Trainer Programme and the Pregnant Women Mentoring Programme (PWMP)) in the form of the manuals and materials used, observations, and interviews with both participants and service providers. The aim of this data collection was to provide formative feedback on the ways in which the interventions may be improved. In particular, the research highlighted the ways in which the interventions manage or fail to empower community members and pregnant women, and the ways in which they can be improved upon. Feedback on aspects of the interventions took place during the roll-out of the programme.

Current research – a brief review

Traditional approaches to intervening in alcohol misuse have been to advocate for complete abstinence. The limitations of this approach have been highlighted (e.g. those most dependent are not reached and those not able to cease consumption are less likely to seek healthcare). A harm reduction model has, instead, been advocated. In this model, abstinence may be the final goal, but any step in that direction is supported, and motivational interviewing used to assist clients in behaviour change. This model enables users to achieve success in modifying behaviours, which increases self-efficacy.

Research shows that providing knowledge about the teratogenic effects of alcohol is insufficient to help drinking women change their behaviour during pregnancy. This is because, as indicated in our own study conducted in Project 2: alcohol may be used as a strategy to cope with stressors and negative emotions; alcohol enables people to maintain social connections; in certain areas alcohol use during pregnancy may be normalised; women may have a lack of attachment to a pregnancy; women may be addicted to alcohol. In addition, there is evidence that threat-based messages about the harm caused to the foetus by alcohol are perceived as over-stated and sensationalising, and are therefore rejected by the recipients.

Although research is definitive that frequent and heaving drinking (in particular binge drinking) during pregnancy is associated with adverse birth outcomes, studies on low to moderate drinking are inconclusive. Genetic, biological, social and psychological factors appear to mediate the effects of alcohol on the foetus. The teratogenic effects of alcohol are increased when there are nutritional deficiencies in the woman's diet.

Formative evaluations

We believe that the Pregnant Women Mentoring Programme (PWMP) and Train-the-Trainer Programme (TTP) are innovative and much needed interventions. The training of local community members to be trainers and mentors not only harnesses the resources of the local community, rather than 'importing' resources from outside, but it also ensures that the input given to the trainers and mentors stays within the targeted community. This hopefully promotes a bottom-up growth in community awareness about FASD. Furthermore, the provision of mentors to alcohol consuming pregnant women no doubt provides vulnerable women with much needed support and assistance.

The following are areas of strengths in the training manuals: the use of video clips and pictures; provision of information on foetal development, pregnancy and labour, and nutrition; attempts to include fathers; acknowledgement of societal or environmental factors which can lead to drug and alcohol abuse. The following were identified as areas for improvement: reduce the potential for blame and shame; move from an abstinence-based approach to a harm reduction approach; promote empathy for women who drink while pregnant; eliminate blaming or stigmatising language; reduce stigmatisation of people with FASD; build strengths and promote empowerment through positive messaging, and shifting the identities of women from drinkers; train mentors in basic listening skills and in motivational interviewing; ensure that information is contextually relevant and accurate.

The following are areas of strength in the training sessions: interactive and varied teaching methods; information presented in an accessible and helpful manner; training facilitator encourages participants;

participants value the knowledge provided; participants found the training space supportive; discussion was encouraged; and posters and pamphlets were distributed. Areas for change are: draw more off participants' current knowledge; avoid blaming pregnant women who drink; reduce the emphasis on the disabilities associated with FASD (to reduce stigmatisation); expand the focus from pregnant women to broader contextual issues, and beyond knowledge provision; avoid assumption that pregnant women are married; provide proper mentoring training; include harm reduction as well as abstinence messages; ensure that accurate information is conveyed at all times; streamline and translate training materials.

The following are areas of strength in the Pregnant Women Mentoring Programme: some women appeared to appreciate the support; some mentors had a warm and encouraging manner; the FASfacts social worker and community worker provide regular workshops for mentors. Areas for change are: lack of training of mentors in basic mentoring and listening skills; mentors provide a lot of unrequested information (e.g. about cleaning the house); questions tend to be close-ended, thereby not encouraging the women to express themselves; blaming language was evident in some sessions; the mentors seem to see their roles as teaching rather than mentoring.

Recommendations

On the basis of the results of the quantitative research, it is clear that interventions, such as the FASfacts one, are needed.

The variables that predict risky drinking suggest that the interventions should:

- Speak to the concerns of younger women in relation to drinking youth cultures and the stresses of pregnancy;
- Address home circumstances, in particular drinking norms within the home;
- Open up discussion of intimate partner violence, and provide support for those experiencing IPV (counselling, legal advice, referral etc.).

Although the results indicated that the Coloured participants drink at riskier levels than do African women, the small percentage of Coloured participants means that a recommendation to concentrate on Coloured women cannot be made.

Comparison of results from the baseline to the end-term surveys indicate an increase in the number of women reporting drinking, but no increase in the average amount of drinking reported. Three broad explanations for this have been provided in the discussion of this section of the report: (1) the

intervention encouraged women to report drinking in order to seek assistance; (2) the intervention led to normalisation of drinking; and (3) the increase is related to a data collection anomaly. The first possibility is a positive outcome; the second is not. It is impossible, from the current data collected, to know which of these possibilities holds sway.

Although the data collected from the Pregnant Women Mentoring Programme should be interpreted with caution, it is likely that this programme is of assistance to some women.

Findings from Project 2 make it clear that the participants' lives are marked by poverty and crime. These social conditions lead to a host of social problems, including poor access to quality education and healthcare, as well as the reality of child-headed households for some of them. Based on this research, the following recommendations are made:

- Understanding the social conditions within which pregnant women live is essential to all programmes. It should not be suggested that the problems the women are experiencing are their fault, or owing solely to their individual behaviour. Locating women's responses within context is essential. Furthermore a supportive, non-judgemental approach that not only prioritises the health and well-being of the foetus, but also the health and well-being of the pregnant woman would prove fruitful.

- Gender norms that include a lack of negotiation concerning contraception and reproductive decision-making mean that there are high levels of unintended pregnancies, which are a risk for drinking while being unaware of the pregnancy. Lack of support from partners features as a major factor in the women's drinking. The most severe form, intimate partner violence, was experienced by some women participants and confessed to by other male participants. As such, interventions need to work with the gender norms underpinning many of the problems observed in this research. This means working with partners as well as women, and addressing the problematic understandings of masculinity that are pervasive in many social situations. While working with men and with couples is important, it is equally important to provide the support services to women who have experienced intimate partner violence, or who have had their sexual partner deny paternity. Referral to, and encouragement to use, social services that assist women with, inter alia, restraining orders, and maintenance is important.

- Unintended pregnancies, early reproduction, HIV and drinking during pregnancy all attract a high level of stigma and shame. Despite the knowledge of the harms of alcohol use during pregnancy that virtually all participants had, drinking continued. Some women mentioned

trying to stop, some mentioned taking "temporary breaks". Understanding and working to undo the stigma experienced by women who drink during pregnancy is essential. Stigma and shame are not pathways to better health behaviour, but rather lead to women not seeking the help they need, and engaging in surreptitious behaviour. Working with other institutions (e.g. schools, clinics, etc.) that may assist in undermining this stigma is important.

- There were minor misconceptions concerning drinking during pregnancy. However, most participants were knowledgeable about the harms of such drinking, stating that this knowledge is socially embedded in Xhosa culture. While knowledge should be included in interventions, too much emphasis on this topic may lead to disengagement by participants. Interventions should concentrate on how participants may put this knowledge to use (i.e. deal with the interpersonal and social factors sustaining the drinking). Of course, addressing misconceptions (e.g. that certain types of alcohol are beneficial to well-being during pregnancy) need to be challenged.

- Stress and trauma were major factors mentioned in maintaining drinking amongst pregnant women. Multiple stressors and traumatic events were referred to. While an intervention dealing with alcohol use during pregnancy cannot hope to address the multiple stressors and traumas experienced by these women, providing space for them and their families or partners to speak through the stressors and/or trauma is important. Indeed, the response of all study participants to taking part in a non-judgmental narrative interview was overwhelmingly positive. Pearl, for example, described how she felt *a bit better* after taking part in this research: "I felt alright bantasekhaya [my people], … it's a bit better ever since [I took part in this research]. I was able to speak about my problem[s], you understand? At least I am now a person who is a bit better. … It goes like this and like this, but at least I do get some sleep. It's a bit better because I could wake up at around twelve and just think and just think and just think about things".

- Participants referred to the pervasive drinking culture and peer pressure to drink. Although pregnant women are discouraged from drinking by community members on the one hand, on the other hand, they risk losing social recognition if they do not. Interventions should address the underlying drinking culture and peer pressure to drink. While concentrating on particular behaviours (e.g. not allowing drunk friends to drive) may be useful, generic campaigns that highlight the multiple effects of drinking may have more effect.

- Participants mentioned a number of sources of support, including families, healthcare providers, social workers, the church and traditional healers. Forming partnerships with

healthcare facilities, social services, schools, churches and traditional healing organisations in the area of intervention may be fruitful. It is important in these interactions to address constructive and unhelpful approaches to drinking during pregnancy (for example, it should be emphasized that stigmatisation and shaming are not likely to bring about the desired effects). Although not many participants spoke about traditional healers, Zuma et al. (2016) pointed out that eight in ten black South Africans are believed to utilize traditional health practitioners solely or along with Western medicine. They would thus be an important and influential partner in community-based interventions.

Project 3 provided input to the FASfacts management and social workers during the roll-out of the intervention. Based on the brief literature review, the following is recommended:

- Implementing a harm reduction approach, with the final aim being abstinence;
- Using motivational interviewing; training mentors in motivational interviewing;
- Acknowledging and working with the factors associated with drinking during pregnancy, including, as highlighted above, stress, negative emotions, the maintenance of social connections through drinking, lack of attachment to the foetus, and addiction to alcohol.
- Working with maternal nutrition and prenatally alcohol exposed children and carers will assist with reducing the negative outcomes of alcohol use during pregnancy.
- Messages about the risks of drinking during pregnancy should be honest and factual and delivered in a supportive manner.
- Giving practical advice for reducing intake and preferably abstaining, as well as stories from those who have succeeded, is of benefit.

Analysis of the manuals led to the following recommendations:

- Continue with the positive aspects of the manuals outlined.
- Reduce the potential for blame- and shame-induction.
- Promote empathy for women who drink while pregnant (on the basis that this drinking is driven by personal and social factors, often beyond the control of the individual woman).
- Eliminate stigmatizing language – both for the prenatally alcohol-exposed child and the woman.

- Build on women's strength and promote empowerment through positive messaging and shifting the identities of women away from that of "drinker".
- Ensure that all information is contextually relevant and accurate.

Analysis of the training sessions led to the following recommendations:

- Continue with the positive aspects identified in the report.
- Avoid blaming pregnant women who drink.
- Reduce emphasis on the disabilities associated with FAS.
- Expand the focus from the pregnant women to broader contextual issues, and beyond knowledge provision.
- Avoid the assumption that pregnant women are married.
- Provide good mentor training, including active listening skills and motivational interviewing.
- Incorporate harm reduction strategies.
- Ensure that information is accurate at all times.
- Streamline and translate all training manuals and materials.

Analysis of the Pregnant Woman Mentoring Programme resulted in the following recommendations:

- Continue with the positive elements identified in the programme.
- Provide proper training for the mentors, particularly in listening skills and motivational interviewing.
- Ongoing training of mentors so that they do not use blaming messages or provide unsolicited information about other areas of women's lives is important.

To conclude, interventions such as the ones provided by FASfacts are essential. The FASfacts interventions follow a good community-based model. There are many positive features to the interventions. However, there are also a number of ways in which the interventions can be improved. We wish the team all the best in forging ahead to make these changes and in the constant process of improvement.

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Introduction

Harmful and hazardous consumption of alcohol during pregnancy has been shown to have numerous potential adverse effects on the child, including structural anomalies and neurocognitive and behavioural disabilities. These effects have been termed foetal alcohol spectrum disorders (FASD). The most severe is known as foetal alcohol syndrome (FAS), in which the children display facial anomalies, growth retardation and developmental abnormalities of the central nervous system. In partial foetal alcohol syndrome (PFAS), children display the typical facial features as well as abnormalities in one of the other areas (growth, central nervous system structure or function). Other teratogenic effects of alcohol include alcohol-related birth defects (ARBD) and alcohol-related neurodevelopmental disorder (ARND) (Manning & Eugene Hoyme, 2007).

Rates of foetal alcohol syndrome have been shown to be high in various communities of the Northern Cape and Western Cape (May et al., 2007; May et al., 2013; Urban et al., 2008; Urban et al., 2015). These rates are 33-148 times greater than U.S. estimates. FAS prevalence in other South African communities is lower, but still high (Olivier, Viljoen, & Curfs, 2016; Viljoen, Hymbaugh, Boyle, & Blount, 2003). However, we know of no epidemiological studies that have been completed in the Eastern Cape.

In terms of prevention of harmful or hazardous alcohol use[1] during pregnancy, researchers recommend universal screening and intervention in prenatal care (Bailey & Sokol, 2008), as well as comprehensive community-wide education programmes (Viljoen et al., 2005). Such a comprehensive intervention, instituted in the Northern Cape, has shown promise in terms of reducing FASD (Chersich et al., 2012). Another instituted in the Western Cape also showed signs of reduction in drinking amongst those who were part of the programme. This intervention incorporated life management, motivational interviewing techniques and a community reinforcement approach (De

[1] The World Health Organisation defines different categories of alcohol consumption along the continuum of safe to dangerous drinking as 'hazardous', 'harmful' and 'dependent' (Babor, Campbell, Room, & Saunders, 1994). Hazardous drinking is a pattern of alcohol use that increases the risk of harmful consequences for the drinker without having yet caused any alcohol-related harm. Harmful drinking is defined by the ICD-10 Classification of Mental and Behavioural Disorders (WHO, 1992) as a pattern of drinking that is already causing physical or mental health damage to the drinker, but without meeting the full clinical criteria of alcohol dependence. Dependent drinking is a pattern of drinking characterised by moderate or severe dependence on alcohol. The ICD-10 (WHO, 1992) defines alcohol-dependence as a cluster of symptoms that include a strong desire to use alcohol, impaired control over alcohol use, physiological withdrawal when alcohol consumption is reduced, greater tolerance of alcohol, neglect of alternative pleasures and interests, and persistence with drinking, despite clear evidence of harmful consequences.

Vries et al., 2016). Carson et al (2010) emphasise the necessity of service providers creating a safe and supportive environment in which women may report alcohol use and be assisted with cessation or reduction of consumption.

The research reported here was funded by the Eastern Cape Liquor Board, and was conducted in support of the FASfacts intervention in Buffalo City. This intervention has both a community-based component and a support for pregnant women component. The community-based component consists of the Train-the-Trainer Programme, aimed at community leaders and volunteers who are trained as facilitators to create awareness and educate community members. The Pregnant Women Mentoring Programme (PWMP) supports pregnant women in abstaining from substance use during pregnancy and whilst breastfeeding by providing them with a lay counselling service focused on education, emotional support and motivation. The findings from the study reported here can be used to inform both of these interventions.

In order to address the dearth of research on alcohol use during pregnancy in the Eastern Cape and to support the implementation of the FASfacts intervention, a range of quantitative and qualitative studies were carried out by the Critical Studies in Sexualities and Reproduction research unit of Rhodes University. In this report, we outline findings from each of the projects.

Project 1, reported on in Part 1, consisted of a baseline and end term survey of drinking amongst antenatal clinic users in selected wards of Buffalo City, including the sites of the intervention. Project 2, reported on in Part 2, was a qualitative research study using narrative methodology, which focused on the micro-level and macro-level networks that serve to either enhance alcohol use or support abstinence from alcohol during pregnancy. Project 3, reported on in Part 3, consisted of a formative evaluation exercise of the FASfacts intervention in the Buffalo City region, providing input throughout the process in order to maximize the effectiveness of the programme.

In each Part, we provide a brief background on the project, the methodology used in collecting the data, and the main findings of the project. These findings are compared, where relevant, to insights from other research studies conducted on alcohol use during pregnancy. In the final Part of the report, recommendations for the FASfacts intervention are made.

Ethical clearance to conduct the study was obtained from Rhodes University, tracking number: RU-HSD-16-05-0001. Permission from the Eastern Cape Department of Health and Buffalo City Metropolitan Municipality was granted. All necessary precautions were taken to ensure that the rights of participants were respected, and that participation proceeded on an informed consent basis

PROJECT 1:

Baseline and end-term quantitative study

South African household surveys have revealed that 2.5% of pregnant women report drinking at hazardous or harmful levels (Peltzer & Ramlagan, 2009). However, there is no national or provincial data-base that records alcohol use during pregnancy (Russell, Eaton, & Petersen-Williams, 2013). Little is known about the demographic, personal and locational variations in drinking during pregnancy in the Eastern Cape. This study addresses this by conducting a survey of the prevalence and features of drinking amongst antenatal clinic users in selected wards in Buffalo City. These data formed the baseline for the FASfacts intervention. After the baseline, wards with the highest drinking prevalence were targeted for the FASfacts intervention. At the end of the intervention, data collection was repeated in antenatal clinics in the same wards to ascertain whether there has been a community effect in the reduction of drinking during pregnancy. In these end-term data collection, three intervention and two non-intervention sites were used, with the non-intervention sites forming the control sites.

Within the wards that received FASfacts intervention, individual pregnant women were also recruited into the Pregnant Women Mentoring Programme. The Pregnant Women Mentoring Programme involves regular meetings with a community member or mentor trained by FASfacts to help pregnant women reduce their drinking. The drinking patterns of these women were measured at the onset of their participation in the Pregnant Women Mentoring Programme and again 6 months later.

In this report we outline the methodology used in collecting and analysing data. We present the findings and draw out the implications for the FASfacts interventions. The first section of the report outlines the baseline findings of the prevalence of drinking. The second section shows the change in drinking patterns in the intervention and non-intervention sites. Section 3 provides data on the Pregnant Women Mentoring Programme. In the fourth section, we pool the data across the baseline and end-term data to understand the factors associated with drinking during pregnancy in these low-resource settings of Buffalo City.

SECTION 1: The baseline study

The research question driving the baseline study was the following: What is the prevalence of risky drinking, as defined by the different cut-off scores of measures of alcohol consumption amongst pregnant women attending antenatal consultations at clinics in low-resource settings in Buffalo City?

Data were collected in sixteen health care facilities, all of which are government/public primary health care facilities and clinics that provide maternity services for pregnant women and run a support group once a month for breastfeeding mothers. Consecutive sampling of participants was used (i.e. all willing pregnant women who attended the clinics). The sample of 995 comprised of pregnant women attending antenatal clinics in the selected sites over a nine-month period.

Data were collected through the use of a structured questionnaire (see Appendix A). Apart from the socio-demographic information and health items, the questionnaire was divided into two parts: 1) the Alcohol Use Disorders Identification Test (AUDIT) questions; and 2) other questions. The Alcohol Use Disorders Identification Test (AUDIT) is a well-validated, brief measure that was developed by the World Health Organization to screen for hazardous and harmful drinking and alcohol dependence in a variety of clinical settings (Conigrave & Saunders, 1995). The measure consists of 10 items, each giving a score of 0 to 4, with a maximum score of 40, and can be easily administered orally by a healthcare worker or by written self-rating (Babor, Higgins-Biddle, Saunders & Monteiro, 2001). The AUDIT-C is a shortened version of the AUDIT that comprises of items that assess alcohol consumption (items 1 to 3), and it is used to identify hazardous drinkers (Lopez, Lichtenberger, Conde & Cremonte, 2017). Its score ranges from 0 to 12. AUDIT has been used in a number of large South African epidemiological studies (e.g., Simbayi et al., 2004; Myer et al., 2008). It has been used as a screening measure for alcohol use in pregnancy (e.g., Smith, Savory, Couves & Burns, 2014).

A rigorous process of forward and backward translation was used to translate the questionnaire into isiXhosa and Afrikaans. Forward translation is a method in which a document or questionnaire is converted from the source language to the target language, while backward translation is a method in which the same document or questionnaire is translated back from the target language to the source (original) language (Wankel, 2009). This method is vital as it is used to identify conversion errors when translating back from the target language to the source language (Wankel, 2009). The services of language experts in the Rhodes School of Languages were used to conduct the translations and to resolve any linguistic or conceptual differences between the various versions.

Questionnaires were thus administered in the participant's language of choice (English, Afrikaans or isiXhosa). Health service providers were trained in data collection. Two training sessions were provided by one of the researchers. The training introduced the health service providers to the purpose of the study, the role of the health service providers and the data collection method. Additionally, they were provided with files for the purpose of data storage and copies of the various language versions of the survey instrument, consent forms, manuals and important contact details. Health service providers had the opportunity to practice the administration of the survey. Researchers visited the sites at regular intervals to provide support and input to health service providers in the data collection.

Data were analysed through the use of descriptive statistics and inferential statistics. Descriptive statistics were used to describe the demographics of participants. In order to determine the prevalence of risky drinking, responses to individual questions were condensed in addition to calculating the overall score on AUDIT-C. Overall scores were utilized to derive the number of women meeting criteria for hazardous and harmful drinking, and heavy episodic (binge) drinking that is, six drinks or more monthly or more frequently.

Findings

Table 1 below describes the prevalence of drinking as measured in various ways by the AUDIT. Significantly, two-thirds of the sample reported not drinking. For those who do drink, the large majority drink once monthly or less often.

In analysing risky drinking, we used two measures: total AUDIT score of 5 or more; AUDIT-C of 3 or more. The total AUDIT score is calculated for all the AUDIT items and refers to consumption and consequences of drinking (e.g. dependence, emotional and cognitive difficulties). AUDIT-C measures consumption only and is based on the first three questions of the AUDIT questionnaire: How often do you have a drink containing alcohol? How many drinks containing alcohol do you have on a typical day when you are drinking? How often do you have six or more drinks on one occasion? The results are contained in the table below.

Table 1: Frequency of current drinking amongst participants according to AUDIT

	n	%
Never	671	67%
Monthly or less	218	21.8%
2-4 times a month	90	9%
2-3 times a week	13	1.3%
4 or more times a week	8	0.8%
Total AUDIT score 5 or more	178	17.8%
Heavy episodic drinking (six or more drinks on one occasion) monthly or more frequently	68	6.8%
AUDIT-C score of 3 or more	169	16.9%

One third of the sample (33%) reported current drinking. This is a higher percentage than was observed among women attending one antenatal clinic in Cape Town's East Metropole District, where 20% of participants reported drinking during pregnancy (Vythilingum et al., 2012). A wider study in the Western Cape previously found that 42% of women attending antenatal clinics in the province reported drinking during pregnancy, somewhat more than observed in this study (Croxford & Viljoen, 1999). A study at a rural site in Mpumalanga found that only 6.6% of pregnant women reported drinking (Louw, Peltzer & Matseke, 2011). This is partly explained by the fact that alcohol consumption in general occurs at lower levels in rural settings as compared to urban areas (Stats SA, 2016).

Results of this study show high levels of risky drinking: 17.8% on the total AUDIT scale, and 16.9% on the AUDIT-C scale. These figures are higher than the results from a similar study conducted in the UK (Smith, Savory, Couves, & Burns, 2014), which reported that 4.7% and 5.4% pregnant women reported risky drinking on the total AUDIT scale and AUDIT-C scale respectively. The prevalence for heavy episodic drinking, as measured by question 3 of the AUDIT – 6.8% – is nearly three times the 2.4% reported by Smith and colleagues. Prevalence of risky drinking as measured in this study was not reported in other South African research.

Table 2 outlines the drinking patterns in relation to the clinics. The Mean of the AUDIT-C score as well as the Standard Deviation (SD) for each clinic are presented. Across all the clinics the mean AUDIT-C score is 1.02, with the standard deviation from the mean being 1.87. Although an analysis of statistical differences between the clinics was not possible owing to the small sample sizes within

each clinic, it is clear that there is some variability in drinking patterns across the communities close to the clinics. For example, Clinic 7's mean is 0.62 with a SD of 1.23, compared to Clinic 1 with a mean AUDIT-C score of 2 and a SD of 2.45.

Table 2: Distribution of participants across the sites

	n	AUDIT-C Mean	AUDIT-C SD
Clinic 1[2]	30	2	2.45
Clinic 2	46	1.39	2.33
Clinic 3	76	1.30	2.2
Clinic 4	101	0.71	1.25
Clinic 5	99	0.8	1.69
Clinic 6	78	1.08	1.94
Clinic 7	84	0.62	1.23
Clinic 8	44	0.86	1.66
Clinic 9	77	0.79	1.80
Clinic 10	66	0.73	1.47
Clinic 11	39	1.1	1.92
Clinic 12	35	1.09	1.98
Clinic 13	74	1.38	2.12
Clinic 14	33	1.61	1.2
Clinic 15	24	1.83	2.06
Clinic 16	69	0.86	2.21
Total	**975**	**1.01**	**1.86**

[2] As this report will be made public, the names of the clinics are not included.

SECTION 2: The end-term study

The research question driving this element of the study is: What changes in drinking patterns can be discerned across intervention sites in relation to non-intervention sites following the institution of the FASFacts intervention?

On the basis of the baseline data, clinics 1, 2, and 3 were selected for FASfacts intervention. Community-based intervention took place at these sites during 2018. To determine if the prevalence and patterns of drinking at these sites decreased, the data collection procedure used in the baseline study was repeated at these sites in 2019. Data were also collected at two sites that did not receive intervention in order to compare any observed changes in drinking. Data collection methods were exactly the same as the methods used in the baseline study.

Data collected before and after the intervention at these sites were compared via chi-square tests of differences in percentage of women reporting any alcohol use and percentage of women scoring 3 or higher on the AUDIT-C (risky drinking). T-tests and analysis of variance (ANOVA) were used to compare mean AUDIT-C scores for all participants; and mean AUDIT-C scores among women who reported having drank.

Findings

Table 3 Shows the AUDIT-C scores obtained at sites that received FASfacts intervention (intervention sites) and non-intervention (control) sites during the baseline study in 2017 and during the end-term study in 2019. The last column shows the probability that the difference in mean scores obtained before and after the intervention is due to chance, given the size of the sample.

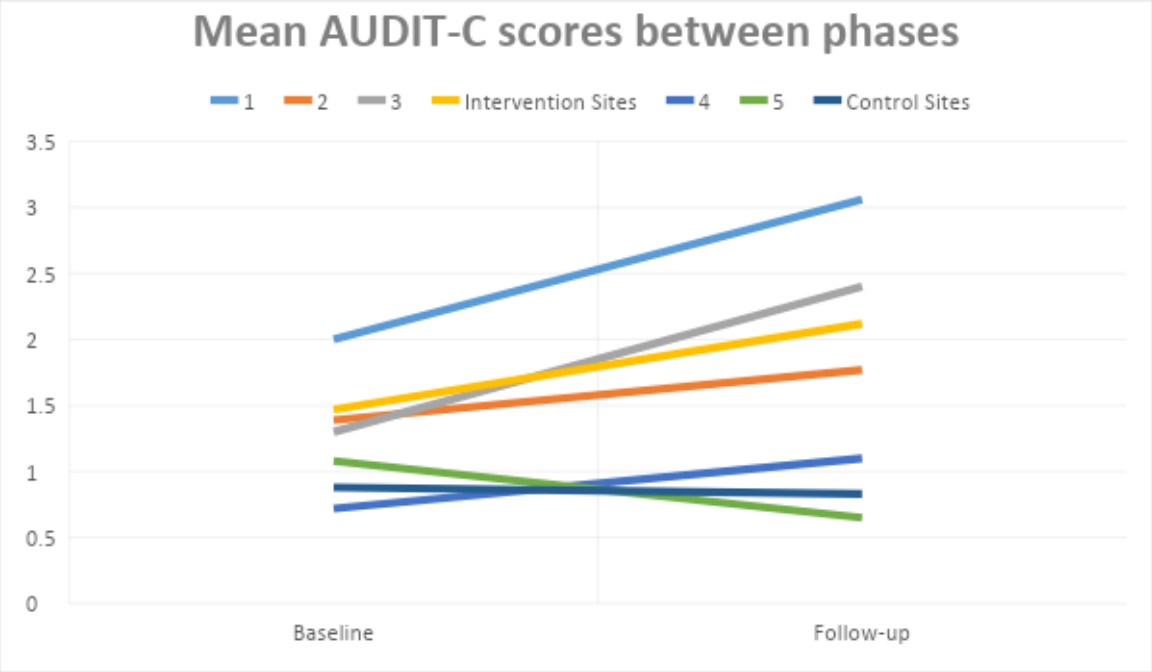
Drinking rates observed at all three intervention sites were higher after the intervention in 2018. This was not statistically significant at sites 1 (p=0.07) and 2 (p=0.16) meaning that the increase could likely (7% and 16% respectively) be due to chance. At site 3, however, the size of the increase and the size of the sample obtained mean that there is virtually zero chance of the effect being due to chance (p=0.00). When all three intervention sites are taken together, an overall increase is observed that is statistically significant (p<0.01).

Table 3: AUDIT-C scores before and after intervention

	Baseline			End-Term			
Site	n	AUDIT-C Mean	AUDIT-C Sd	n	AUDIT-C Mean	AUDIT-C sd	P
1	30	2.00	2.45	32	3.06	3.15	0.07
2	46	1.39	2.33	136	1.77	2.16	0.16
3	76	1.30	2.20	58	2.41	1.93	**0.00****
Intervention	152	1.47	2.29	226	2.12	2.31	**0.01****
4	99	0.72	1.57	61	1.10	2.31	0.11
5	78	1.08	1.94	91	0.65	1.76	0.07
Control	177	0.88	1.75	152	0.83	2.00	0.82

The mean AUDIT-C scores among intervention- and control sites before and after intervention are represented in figure 1 below. At baseline, there was a statistically significant difference ($p<0.01$) between aggregated mean scores of intervention sites ($M=1.47$) and control sites ($M=0.88$). This difference increased in size in the end-term data, as mean scores at the intervention sites rose to 2.12 but the control sites decreased to 0.83. In the end-term data, the difference between intervention and control sites was also significant ($p=0.00$).

Figure 1: Mean AUDIT scores between phases



The increase in mean AUDIT-C scores are explained by the fact that more participants at these sites reported drinking in the end-term data. As can be seen in Table 4, nonsignificant increases in drinking prevalence and risky drinking were observed at sites 1 and 2, while significant increases were observed at site 3. Again, when data obtained at intervention sites are aggregated, statistically significant increases in drinking prevalence and risky drinking patterns are observed among women attending these sites before and after FASfacts intervention. No significant change was observed in mean AUDIT-C scores among those who reported drinking, meaning that although participants were more likely to report drinking, the average levels of consumption among those who drank did not rise.

Table 4: Other indicators before and after intervention

	Prevalence (%)			**Risky Drinking (%)**			**Mean AUDIT-C (drinkers)**		
Site	Phase 1	Phase 2	P	Phase 1	Phase 2	P	Phase 1	Phase 2	P
1	56	68	0.34	33	55	0.09	3.75	4.67	0.28
2	35	48	0.11	24	38	0.08	4	3.71	0.55
3	37	74	**0.00****	24	47	**0.01****	3.81	3.26	0.21
Intervention	40	58	**0.00****	26	43	**0.00****	3.84	3.71	0.67
4	25	27	0.78	13	20	0.25	3.09	4.19	0.14
5	32	21	0.09	19	8	**0.03***	3.36	3.28	0.91
Control	28	23	0.30	16	13	0.41	3.23	3.71	0.35

Discussion

It is clear from the data that more pregnant women at the intervention sites reported drinking after the intervention than before. At sites where the intervention was not deployed, there was no increase in reported drinking. Therefore, the changes observed at the intervention sites are assumed to result from the intervention and not wider socioeconomic changes that may have occurred between the baseline and follow-up stages of data collection.

The strong focus of the FASfacts intervention on raising awareness may have contributed to a willingness to discuss drinking during pregnancy. It is possible that women attending antenatal clinics after the intervention were more honest about their drinking than those in the baseline sample, thereby increasing the observed rate of drinking. Because more women reported drinking, but those who drank did not increase their consumption, it could be that the mean increase resulted from more women being willing to admit to drinking despite no increase in actual amount drunk per capita.

Alternatively, it is possible that pregnant women who were reached by the intervention were more likely to engage in drinking. Previous research has shown that people who believe others are likely to drink are themselves more likely to drink (Foxcroft, Moreira, Santimano & Smith, 2015). Because of this, it is possible that women who were made aware of the issue of antenatal drinking came to view the behaviour as widespread and 'normal'. Research on FASD intervention in the Western Cape has shown that information received from intervention programmes may conflict with knowledge from personal experience and social norms (Watt et al., 2016). If participants had witnessed alcohol-exposed pregnancies that resulted in minimal or undiagnosed harm to the offspring, they could easily discount the health warnings in the intervention. At the same time, information about the prevalence of antenatal drinking may be internalised, making it easier for someone to allow themselves to drink.

As mentioned above, the willingness of participants to disclose their drinking behaviours to the health service provider conducting the interview will affect the data in some way. Participants may be more willing to disclose such information to one person than another. At most sites, the same service provider conducted the data collection during the follow-up phase as in the baseline phase. At these sites, it is expected that the data collector did not introduce any difference between the baseline and follow-up data. At site 3, however, the service provider who collected the baseline data retired between the phases and was replaced by another qualified nurse. Although the service provider who collected data in the end-term sample received the same training in this research project as the baseline data collector, it is possible that participants were more willing to report drinking to the latter. Unfortunately, it is impossible to know what effect this had on the data collected at this site, if any.

SECTION 3: Pregnant Woman Mentoring Programme

The Pregnant Women Mentoring Programme conducted by FASfacts involves trained community members acting as mentors to help pregnant women to discontinue alcohol consumption through regular support. In order to evaluate the efficacy of the Pregnant Women Mentoring Programme, AUDIT-interviews were conducted with participants within 2 weeks of starting the programme, and again 6 months later. During the initial FASfacts meetings with participants, 24 women consented to being phoned and received more information about the research. Of these, 13 were successfully contacted and consented to taking part in the research in April. At the baseline stage, all 13 participants met the criteria for risky drinking, defined as AUDIT-C scores of 3 or more. The results are displayed in Table 5.

Table 5: AUDIT-C scores at onset of Pregnant Women Mentoring Programme and 6 months later

Participant Number	Baseline AUDIT-C	Due Date for Delivery	AUDIT-C September
1	9	June	0
2	8	July	0
3	7	July	0
4	3	September	0
5	7	November	0
6	3	June	0
7	4	October	0
8	4	November	0
9	4	November	0
10	6	August	-
11	6	August	-
12	7	September	-
13	5	May	-

Because participants in the Pregnant Women Mentoring Programme were recruited on the basis of alcohol consumption, one would expect their mean AUDIT-C scores to exceed that of the general population. This was indeed the case. The mean AUDIT-C among participants of the Pregnant Women Mentoring Programme at baseline was 5.62 with a standard deviation of 1.94, compared to a mean of 1.01 with a standard deviation of 1.86 in the general sample.

All women who were successfully contacted during the follow-up calls consented to further participation and reported that they had successfully abstained from alcohol during their last (or latest) month of pregnancy. It is possible that the 4 participants who did not participate in the follow-up interviews continued to consume alcohol. However, no participants who were successfully contacted refused further participation, and it is thus likely that the participants absent from the follow-up data were simply unable to answer the researchers' calls during working hours.

These data indicate that participants in the Pregnant Women Mentoring Programme successfully stopped drinking during pregnancy. Because there was no control group of women who did not participate in the programme, the drinking cessation observed among these participants may be due to a tendency to reduce drinking as pregnancy progresses. However, no effect of gestation on drinking patterns was observed in the general sample. Thus, the Pregnant Women Mentoring Programme may be effective. Research in the Western Cape has indicated that person-centred approaches that focus on motivating individuals to stop or decrease drinking, and support individuals in pursuing this goal, can be effective even after childbirth (De Vries et al., 2016).

These results should be read with some caution, however. Similar data were collected during the previous round of the Pregnant Women Mentoring Programme. This small study, conducted with five women, showed an increase in alcohol usage. These data were discarded because the mentors collected the baseline data and an independent researcher the end-term data. The researchers reasoned that the difference in scores could be due to social desirability - i.e. that the women wished to present in a favourable light to the mentors, but not necessarily to the independent researcher. It is possible that social desirability also played a role in this study, with the women being motivated to report not drinking to the independent researcher in order for the programme, which they were aware was being evaluated, to be reflected in a positive light. Indeed, the fact that all the Audit-C September scores were 0 also indicates unreliability in the data.

SECTION 4: Factors associated with drinking

The research question driving this aspect of the analysis is: What factors are associated with reporting risky drinking during pregnancy?

To effect this, the data collected at baseline and end-term were pooled. Inferential statistics were used to test whether age, employment, experience of IPV, parity, gestation, and alcohol use in the home may be associated with particular drinking patterns. A multivariable binary logistic regression analysis was used to determine whether variables found to be significant in previous inferential analyses were independently associated with risky drinking during pregnancy.

Findings

Respondent demographics, relationship and reproductive status variables

Table 6 outlines the demographic characteristics of the sample. The majority, 95.9%, identify as African and 3.4% as Coloured. The majority are between the standard reproductive ages of 18 and 35 (31.8% of participants are aged between 18 and 25 years, and 37.5% between 26 and 35 years). The majority of participants have either a High School (36.7%) or Matric level (39.4%) education. A large percentage (66.7%) of participants reported being unemployed.

Table 6: Sample demographic characteristics

Race			**Age**			**Education**			**Employed**		
	n	%		n	%		n	%		n	%
African	1329	95.9	18-25	440	31.8	None	16	1.2	Yes	412	29.7
Coloured	47	3.4	26-35	519	37.5	Prim School	75	5.4	No	925	66.7
Data No resp	10	0.7	36-45	136	9.8	High School	508	36.7	No resp	49	3.5
	1386	100%	No resp	291	20.8	Matric	546	39.4		1386	100%
				1386	100 %	Higher Ed	193	13.9			
						No resp	48	3.5			
							1386	100%			

Table 7 outlines the relationship variables of interest. A minority of participants (31.6%) report being married or cohabiting with a partner. A small percentage (5.2%) responded positively to the following question: At any time during your current pregnancy, did your husband/partner push, hit, slap, kick,

choke or physically hurt you in any other way? This percentage is lower than the percentages reported for IPV in general in South Africa (around 30% of women report being victimized by a male partner (Gass, Stein, Williams & Seedat, 2011), and during pregnancy (between 15% and 40% of pregnant report that their partners sexually or physically abused them (Shamu, Abrahams, Temmerman, Musekiwa & Zarowsky, 2011). A substantial minority (40.6%) report that there is another person in the home who drinks on a regular basis.

Table 7: Relationship variables

Married/cohabiting			**Intimate Partner Violence during pregnancy**			**Other drinker in home**		
	n	%		n	%		n	%
Yes	438	31.6%	Yes	72	5.2%	Yes	563	40.6
No	883	63.7%	No	1250	90.2%	No	738	53.3
No resp	65	4.7%	No resp	64	4.6	No resp	85	6.1
	1386	100%		1386	100%		1386	100%

Table 8 outlines reproductive variables. Most (56.4%) participants were experiencing their first or second pregnancy at the time of data collection. There is a concentration of participants who are in the second trimester of the pregnancy (40%).

Table 8: Reproductive variables

No. of previous pregnancies			**Gestation (trimester)**		
	n	%		n	%
0	299	21.6	First	223	16.1
1	399	28.8	Second	558	40
2	284	20.5	Third	296	21.4
3	94	6.8	No resp	309	22.3
4	46	3.3		1386	100%
5+	13	0.9			
No resp	251	18.1			
	1386	100%			

Table 9 describes the sample variables and statistical differences in AUDIT-C scores using statistical comparison of means (t-tests and one-way ANOVA). "No responses" were factored out of the calculations in these analyses. The following variables were found to be significantly associated with

risky drinking: age; race; cohabitation, report of IPV; and other regular drinkers in the home. Interestingly, employment status, education status, parity and gestation were not associated with risky drinking.

The table reveals that older age (35 to 45 years) is associated with lower AUDIT-C scores than younger age. Those who live with a partner drink less than those who do not. Those who identify as Coloured drink more than those who identify as African. Those who report intimate partner violence (IPV) during pregnancy drink more than those who do not, and those who report that their partner or somebody else drinks regularly at home drink more than those who do not. Given the small percentage of participants who identified as Coloured and who reported IPV, the associations between these variables and risky drinking must be read with caution. Nevertheless, these results are in line with other research that suggests that Coloured women drink at higher rates than African women (Myers et al., 2013), and that there is an association between drinking and IPV (Abramsky et al., 2011; Shamu et al., 2011). Other drinkers in the house are an important factor in women drinking during pregnancy.

Table 9: Sample variables and AUDIT-C mean scores

		n	AUDIT-C Mean	p-Value
Age	18-35	942	1.28	
	36-45	136	0.88	0.04*
Race	African	1302	1.18	
	Coloured	46	1.78	0.05*
Parity	Nulliparous	296	1.19	
	Multiparous	820	1.31	0.43
Gestation (weeks)	First trimester	215	1.36	
	Second trimester	553	1.22	
	Third trimester	289	0.95	0.06
Education	None	14	0.93	
	Primary School	73	1.62	
	High School	497	1.35	
	Matric	538	1.15	
	Higher Education	190	1.01	0.11
Employment	Yes (incl. maternity leave)	403	1.15	
	No	906	1.25	0.41
Married/Cohabiting	Yes	427	1.04	

	No	873	1.35	0.01**
IPV	Yes	70	1.93	
	No	1232	1.20	0.01**
Other regular drinker at home	Yes	554	1.63	
	No	726	0.96	0.00**

**: significant at the p<0.01 level

*: significant at the p<0.05 level

To determine if older age, cohabitation race, IPV and having other regular drinkers at home are independently associated with risky drinking during pregnancy, all predictors were entered into a multivariable binary logistic regression model. Being Coloured, reporting interpersonal violence, and having another drinker at home, all independently predict risky drinking. The odds ratios are reported in Table 10 below.

Table 10: Sociodemographic predictors of risky drinking during pregnancy

Predictive factor	OR	95%CI	
Coloured race	2.08	1.03	4.23
IPV	1.85	1.03	3.33
Other drinkers at home	2.11	1.55	2.88

Conclusion

Data were collected over a nine month period on the drinking patterns of pregnant women in sixteen public healthcare centres and clinics across Buffalo City in the Eastern Cape. A questionnaire consisting of the demographic questions and the AUDIT was administered by healthcare providers after training. Data were collected for 995 participants in 2017. After intervention by FASfacts in 2018, data were collected for 391 participants across 5 selected sites in 2019.

The majority of participants identify as African, have high school or Matric education, are between the ages of 18 and 35, and are unemployed. Most are not married or cohabiting, and few reported intimate partner violence.

Results show that the majority of pregnant women do not drink at all. However, there is a substantial minority who drink at risky levels, and who engage in binge drinking. The percentages of women engaging in these practices are higher than those recorded in a similar study in the United Kingdom. Although it is difficult to compare prevalence rates in other regions, it is clear that alcohol consumption by pregnant women is a public health threat in Buffalo City.

Results show that Coloured women, younger women, women who experience IPV, and women who live with someone who drinks regularly are more likely to drink at risky levels. Each of these variables independently predicts risky drinking. Education, employment, marital or cohabiting status, gestation and parity were not associated with drinking patterns.

PROJECT 2:

Narratives of alcohol use during pregnancy among women, partners and family members

Background

Research conducted on alcohol use during pregnancy from the perspective of women who were drinking or had drunk during their pregnancies has identified various risk factors that can be divided into seven categories, namely: 1) socio-cultural risk factors such as limited access to social resources, physical access to alcohol, and the social tolerance of drinking; 2) behavioural risk factors such as alcohol initiation at an early age, drug abuse, having multiple sexual partners and smoking; 3) educational risk factors such as lower educational attainment; 4) familial risk factors such as having parents who consumed alcohol excessively; 5) interpersonal risk factors such as cohabitating with a partner or spouse who is a heavy drinker or alcoholic, being part of a social network where excessive alcohol use is emphasised, being in a violent relationship or having a partner who drinks; 6) non-alcohol related risk factors such as high gravidity and parity, low socioeconomic status, low income or an unsupportable pregnancy; and 7) residential risk factors which include residing in a rural community (Desmond et al., 2012; May et al., 2005, 2008; Urban et al., 2008). Many of these issues were identified in the findings of this study.

Most studies on risk factors associated with alcohol use during pregnancy have been quantitative. Their emphasis, as a result, has not been on articulating and contextualising the underlying attitudes, beliefs and motivations that influence these risk factors (Olufunto & Barry, 2015). It is unclear, for example, which of these risk factors are pertinent in certain contexts and why. In addition, very little research has concentrated on the views of the family members or partners of women who drink alcohol during pregnancy. An in-depth investigation into how partners and family members report on the experiences of these women and their context can be used to inform the content and delivery of intervention initiatives (Kelly, & Ward, 2017).

Method

The research questions asked in this study were:

1. How do women who have consumed alcohol during their pregnancies narrate the journey of their pregnancy?
2. How do partner and family members of women who consumed alcohol during their pregnancies narrate the journey of pregnancy?

The location of the study was a township in Buffalo City, Eastern Cape province. The term "township" has no formal definition. However, it usually refers to the underdeveloped, urban residential areas that were reserved for Black people (i.e. Africans, Coloureds and Indians) during Apartheid (Pernegger, & Godehart, 2007).

To collect the data, individual interviews were conducted with (1) women who drank alcohol during their pregnancies; and (2) the partners or family members of such women. The interviews were conducted according to the narrative method developed by Wengraf (2001). Convenience and purposive sampling were used to select: (1) women who were 18 years and older (for reasons related to the ability to give consent), drank during a previous pregnancy, with the drinking meeting the criteria of moderate or harmful drinking; were willing (due to the sensitivity of the topic) to narrate (in the context of a research interview) the journey of their pregnancy; and (2) partners/family members of women who were recently pregnant and who had consumed alcohol at any time during their pregnancies; the partner/family member had to be more than 18 years old (for reasons related to consent); the partner/family member had to have obtained consent from the woman prior to participation because the participants were going to be discussing the woman; the woman must be known to have used alcohol at moderate or harmful levels during pregnancy; and the partner/family member was willing to narrate the journey of pregnancy from before pregnancy until birth.

Participants were recruited through FASfacts. A two-phase approach was followed. Mentors from FASfacts gave all potential participants a research information card which briefly outlined what the research was about, and requested potential participants to decide whether or not they would like to hear more about the study. In cases where potential participants did not want to hear more about the study, the mentors were asked not to put any pressure on them to change their mind. If potential participants wanted to know more about the study, they were asked to indicate on the information card whether they gave the mentor(s) permission to provide their names and numbers to the researchers in order to contact them with more information about the study.

Those who gave their names were contacted and given in-depth information about the study, such as what their participation may involve, the duration of the study, time commitments, and the implications of their participation. They each signed a consent form.

A total of 25 participants (women, partners and family members) were recruited for the study: 12 women, 12 partners/family members, and one participant who fitted both profiles. This participant (Khethiwe) was initially recruited as a family member, but she told her own story of her pregnancy during which she consumed alcohol, as well as that of her daughter who, likewise, drank during her pregnancy.

Once sub-sessions 1 and 2 of the interviews (see discussion below) were completed, the alcohol use of each of the women during their pregnancies was assessed using a questionnaire, the Alcohol Use Disorders Identification Test for Consumption (AUDIT-C). The questionnaire contains three questions about the frequency of drinking, amount consumed when drinking and the frequency of binge drinking (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). The questionnaire took between 3 to 5 minutes to complete. Partners and family members also completed the AUDIT-C, which means that we measured the partners' and family members' perception of women's alcohol use during pregnancy. If the previously pregnant woman had more than one pregnancy, family members and partners were instructed to answer questions based on the pregnancy in which she consumed alcohol.

A score of 0-3 (females) indicates a low risk of drinking under usual circumstances (Phelps, & Hassed, 2012). In this study, there was one pregnant woman who scored 3 based on a fully completed AUDIT-C. Another woman scored 3 because her husband could not answer all of the three consumption questions as she usually drank at taverns or shebeens with friends. These women were included in the sample as a score of 3 is considered to be moderate drinking, but still harmful during pregnancy. A score of 4-7 (females) indicates a risky pattern of drinking in general (Phelps, & Hassed, 2012). Participants indicated that 4 women had risky patterns of drinking during pregnancy. Additionally, a score of 8+ (both females and males) indicates a high-risk pattern of drinking (Phelps, & Hassed, 2012).

Tables 10 and 11 below provide information about the participants' age, relationship and employment status, languages spoken, level of education and AUDIT-C scores. Only pseudonyms have been provided. All participants are Black. As can be seen from the table, participants were mostly similar with regards to their level of education and employment status. Only four of the participants had completed high school (Matric). The rest had reached various grades in primary or high school. None had tertiary education. Only three of the participants indicated that they were employed at the time of

the interviews. Table 10 outlines the characteristics of the women participants (those who consumed alcohol during pregnancy). Table 11 contains information on the partner and family members who took part in the study.

Table 11: Demographic information of women participants

Pseudonym	Age	Relationship Status	Language(s) Spoken	Level of Education	Employment Status	AUDIT-C Score
Cindy	23	Single	IsiXhosa	Matric	Unemployed	4
Dineo	20	Single	IsiXhosa	High School	Unemployed	5
Hope	23	Married	IsiXhosa	High School	Unemployed	5
Khethiwe	48	Widowed	IsiXhosa	Primary School	Unemployed	6
Lola	27	Single	IsiXhosa and English	High School	Unemployed	10
Lucy	36	Single	IsiXhosa	High School	Unemployed	7
Morongwa	32	Married	IsiXhosa	High School	Unemployed	4
Nina	25	Single	IsiXhosa	High School	Unemployed	8
Nonny	24	Single	IsiXhosa	High School	Unemployed	4
Nono	43	In a relationship	IsiXhosa, English and Afrikaans	Matric	Unemployed	7
Pearl	40	Single	IsiXhosa	High School	Unemployed	10
Pretty	27	In a relationship	IsiXhosa	High School	Unemployed	6
Rosey	22	In a relationship	IsiXhosa	High School	Unemployed	10

Table 12: Demographic information of partner or family member participants

Pseudonym (relation to woman)	Age	Relationship Status	Language(s) Spoken	Level of Education	Employment Status	AUDIT-C Score
Luvo (husband)	57	Married	IsiXhosa	Primary school	Unemployed	8
Khaya (husband)	45	Married	IsiXhosa	High school	Unemployed	3
Jonga (husband)	37	Married	IsiXhosa	Matric	Employed	10
Sizwe (husband)	33	Married	IsiXhosa	High school	Employed	6
Lunga (husband)	48	Separated	IsiXhosa	High School	Unemployed	9
Khethiwe (mother)	48	Widowed	IsiXhosa	Primary School	Employed	7

Linda (mother)	45	Married	IsiXhosa	High School	Unemployed	11
Lisa (niece)	32	In a relationship	IsiXhosa	None	Unemployed	6
Lumka (mother)	48	Married	IsiXhosa	High school	Unemployed	3
Lulu (sibling)	23	In a relationship	IsiXhosa	High School	Unemployed	11
Liso (aunt)	32	Married	IsiXhosa	Matric	Unemployed	12
Kuhle (mother)	57	Married	IsiXhosa	Primary school	Unemployed	6
Jade (daughter)	38	Married	IsiXhosa	High School	Unemployed	12

The method of data collection used for this study was the narrative interview as delineated in the work of Wengraf (2001, 2004). Narrative interviews are a means of collecting the participants' own stories about their experiences of something, and allow the researcher to understand the experiences and behaviours of the participants (Anderson & Kirkpatrick, 2016; Jovchelovitch & Bauer, 2000).

In the first or main interview, two sub-sessions took place. In the first sub-session, the interviewers posed one narrative question (or what Wengraf (2001) calls a Single Question aimed at Inducing Narrative (SQUIN)) which enables the participant to start telling their story. It is important to note that during this session, as well as in the second sub-session, two researchers were present. One asked the SQUIN, and the other (referred to as the co-researcher) quietly took notes. For this study, the SQUIN did not make reference to alcohol use so as to i) help establish rapport with the participants, and ii) avoid upsetting them and making them feel embarrassed or judged for drinking, or for having a family member or partner who consumed alcohol during pregnancy. The SQUIN used for this study were as follows:

1. "Please tell me the story of your pregnancy from before you were pregnant through to when your child was born, including the events and experiences that were important to you during this time".
2. "Please tell me the story of your partner's or family member's pregnancy, from before she was pregnant through to when (name of the child) was born; tell me all the events and experiences that were important to her and you".

The participants were interviewed by the second and third authors, with one or the other taking the lead depending on the interview (SM interviewed women with NT being a co-researcher, while NT interviewed partners and family members with SM as a co-researcher). Before the SQUIN was posed, the interviewees were told that: 1) the co-researcher would take notes, which the researchers would discuss; 2) they would not be interrupted in telling their stories; 3) there were no right or wrong

answers to the question; and 4) they could take all the time they needed to answer the question and could start wherever they liked (Wengraf, 2001, 2004). Furthermore, participants were encouraged to say as much as they wanted to when telling their stories and were assured that they would not receive any judgement from both the researcher and the co-researcher regarding any information that they chose to disclose.

Prior to the second sub-session of the main interview (i.e. the narrative follow-up), the interviewee was asked to leave the room and the researcher and her co-researcher spent 15 minutes composing questions to ask the interviewee based on the notes taken by the co-researcher (Wengraf, 2001). In this sub-session, three guidelines were adhered to (Wengraf, 2001, 2004). Firstly, the interviewer asked the interviewee narrative-pointed questions or rather, questions related to the story that was told. Secondly, the questions asked were based on the topics raised by the interviewee in the first sub-session. Lastly, in asking about the topics raised, the interviewer did so in the order in which they were raised, one at a time, using the exact words of the interviewee. The purpose of this sub-session, according to Wengraf (2001), is to ask the participant for more narratives.

The second interview is when sub-session three takes place. This sub-session took place after the data from the first interview (the first and second sub-sessions) had been transcribed (verbatim) and read over (Wengraf, 2001). In this sub-session, the interviewee was re-interviewed and the interviewer was given the opportunity to ask further and/or additional questions (narrative, non-narrative or other kinds of questions) that emerged from what was said or not said in the first interview (Wengraf, 2001, 2004).

The researchers, who are both bilingual, translated the data from isiXhosa to English and validated each other's translations to ensure accuracy. The data were analysed using thematic analysis. Thematic analysis offers a systematic method of organizing, identifying and reporting patterns or themes within the dataset (Braun & Clark, 2006). The thematic analysis carried out for this study involved i) reading and re-reading interview material in order to identify potential themes, ii) reviewing the identified themes using thematic mind-maps, and iii) re-reading the interview material again to refine and define existing themes.

Findings

In the following sections, we outline themes falling within six broad narrative topics: painting personal situations; describing the social situation; explaining and justifying drinking during pregnancy; telling positive stories; and drawing on negative social norms. In each of the themes, short excerpts of data are provided. These examples are not exhaustive, but were chosen to illustrate the point made.

Describing personal situations: drinking, pregnancy, stigma and knowledge

In this section, we outline participants' talk of the women's drinking habits, their pregnancies, the stigma accruing to both drinking and particular pregnancies, the women's knowledge of the effects of drinking during pregnancy, and concomitant problems. These themes describe, in broad brush strokes, the major understandings of the personal situations of women who consume alcohol during pregnancy.

Drinking habits

All family members and partners stated that pregnant women who drank before pregnancy did not stop drinking nor change their alcohol consumption after learning that they were pregnant. Family member Liso said: "She was drinking, she drinks a lot and loves alcohol. … When her tummy was big, she continued drinking; she was not listening, and she would do everything (drinking, partying and fighting). She drank until she gave birth". Family members and partners provided physiological explanations for the drinking: "She won't stop drinking because alcohol is in her blood (meaning it's a habit)" (Linda, family member), or "When you are pregnant you have things, you crave things such as an apple, cabbage or orange or alcohol" (Lunga, partner).

Women participants confirmed the continued drinking, as indicated by Nina: "I continued taking brandy daily (.) red brandy (.) it was Commando and I kept on taking the brandy and drinking and drinking the brandy". According to family members, some women did not drink before pregnancy but started drinking during, and continued drinking throughout, their pregnancies.

Some women spoke about unsuccessful efforts to stop, as indicated by Pearl: "I really tried to stop drinking, but I haven't stopped drinking". Others spoke of brief success ("taking a break from alcohol") followed by drinking again. Women spoke of finding any way to obtain alcohol, including using money from the Child Support Grant, or finding friends to buy them alcohol when they had no money.

Family members and partners reported that the drinking led to conflict: "She loves shouting when she is drunk. When she comes back, she will shout at us about why we did not fetch water, etc." (Jade, Family member). According to Linda, another family member, "When I started asking (about her behaviour), she threw a vase at me that was on top of the table. It's clear that alcohol makes her aggressive". In addition, pregnant women were described by family members and partners as untrustworthy: "But with her, she wants to take something from the house to sell when she does not have money to drink." (Linda, family member). "One of them is the mother of my children (wife) -

leaving my children alone for fun in shebeens with her friends. My kids must cook for themselves." (Lunga, partner).

This conflict sometimes had dire consequences: "I left her but what made me fight back is that people laughed at me. After, one of the guys she was sitting with there said '*Tyhini*!![3] his wife is beating him' . That challenged me so hard and I fought back. And the next thing I was at the police station. I was arrested" (Lunga, partner). This exchange highlights the complexity of the conflict, which is not only created by the woman drinking, but also by the operation of masculine jockeying for power.

Pregnancies

Almost all family members and partners indicated that the women's pregnancies were unintended. For example, Jonga, a partner, said: "It was not our agreement for her to get pregnant." This was confirmed by some of the women: "I mean I didn't [plan her], you understand, she just came out (.) out of the blue (.) she came out through my drinking and everything involved with drinking because I didn't use a condom and I didn't use the [contraceptive] needle" (Pearl). Thus, some women may have been drinking prior to knowing that they were pregnant.

Unintended pregnancies are, however, not necessarily unwanted, as indicated by a number of participants. For example, Lumka, a family member, indicated: "She could not tell me [that she was pregnant] by herself. I asked if it is true. I was scared, and I cursed. Then, she came, and we sat down and talked, and she cried. She told me she was 4 months pregnant. I told her, 'Hey but it's not an issue"'.

Experience of stigma and shame

Stigma and shame were experienced in relation to both the pregnancy (in some cases) and the drinking. Young women becoming pregnant was particularly mentioned as shameful: "I felt very ashamed, so I was hiding from the teachers that I was pregnant because they would have asked me a lot of things" (Cindy). "Being pregnant when you are young in our culture is not right (.) many people in the community and even some of my family members said that I was a loose girl *[participant crying]* … I was raped by my boyfriend *sisi [participant crying]* (5) and my mother did not believe me (.) she said I wanted to have sex and this still hurts me".

[3] Expression of surprise.

Women also spoke about drinking during pregnancy being stigmatised by community members, particularly as this highlighted the women's failure to attain the social standard of 'good mothering': "Firstly *sisi* (.) I want to say that when I was pregnant, I never drank at the shebeen because everyone in the community would know that I am a pregnant woman who drinks and people here talk (.) many women who are pregnant and who drink in the community are called bad mothers and I don't want that." (Dineo).

Shame regarding early pregnancies and drinking during pregnancy was extended to families. In relation to pregnancy, Pretty said: "I was told to leave school when I got pregnant (.) my father said that I must stop going to school because I had already embarrassed him in the community and now I was going to embarrass him at school". The extension of shame to families meant that family members had to negotiate this stigma. One woman described being shamed through a public beating administered by her mother because of her alcohol consumption. In performing the beating in a public space, the mother potentially alleviated stigma accruing to herself, as she was openly and visibly opposing the drinking.

Strategies used by the women to overcome this stigma and shame included self-exclusion from particular spaces and surreptitious behavior: "I got myself my bottle and my carry-pack [six pack of ciders], and I put it somewhere I knew that no one was going to find them because I used to hide them in shoe boxes in my cupboard … so no one knew I was drinking when I was pregnant because no one saw me" (Morongwa).

The consequences of stigma and shame were also highlighted by some of the women in their narratives. Cindy, who shows how shame and stigma leads to exclusion from schooling spaces, said: "I drank because I was worried and stressed that by being pregnant while at school, I will not be able to go back to school *[clears her throat]*, pass grade eleven and do my matric and go to university".

Some women spoke of the shame they experienced as embedded in Xhosa culture or religious teachings: "In the Xhosa culture, I did a lot of things that are embarrassing" (Pretty). "There is a right time for having a child in our culture" (Nina). "Drinking when you are pregnant in our culture is wrong. You can be called a bad mother." (Lucy). "The Bible says that a baby is a gift from God and the Ten Commandments (.) one of them says do not kill. When I was pregnant, I drank like I said (.) *sisi* my baby died *[participant crying]* (5) I killed my baby *[participant crying]* (15)" (Nonny).

Knowledge of the effects of drinking during pregnancy

Various sources of knowledge about the effects of consuming alcohol during pregnancy were mentioned by the women and family members/partners, including: nurses at the clinic, mothers and members of the community. Most indicated that they *did* know about the effects of alcohol use during pregnancy: "She does know that there could be a problem when you drink in pregnancy, and at the clinic they are taught about the effects of alcohol in pregnancy." (Lumka, family member). Lack of knowledge was cited only by some participants: "Yho, it was 1992. I don't think she knew. Because awareness about alcohol use in pregnancy, it's something new." (Jade, family member). "I don't think she knew the dangers of drinking in pregnancy. But growing up, when you are pregnant you were not allowed to drink, smoke or use any drugs" (Jonga, partner).

Some participants mentioned that this knowledge was embedded as common knowledge in Xhosa culture: "In our culture, it has always been said that (.) a pregnant woman cannot drink (.) I was told this a lot when I grew up" (Rosey). "I knew that women are not supposed to drink in pregnancy and I am certain that she also did have this knowledge. Because it's always been there that when you're pregnant, you must not drink." (Khaya, family member). This Xhosa understanding meant that the elders could intervene when women's behaviour veered from this cultural injunction: "I used to drink and I knew it was wrong and I knew that the elderly people were going to want to discipline me, but I did it [I drank] anyway" (Khethiwe).

While knowledge that the consumption of alcohol can cause problems in pregnancy seemed to be widespread, there were also indications of misconceptions – for example, that women need to consume large amounts of alcohol to cause harm and that some types of alcohol pose less risk than others: "She knows the harms of alcohol use in pregnancy. I told her not to drink in pregnancy, but she would say 'No mama, I do not drink too much'" (Kuhle, family member). "There is a belief among them [pregnant women drinking at taverns] that when you drink Smirnoff, it helps somehow with pregnancy. I don't know how" (Jonga, partner).

Some women spoke of regret at not heeding this knowledge: "I almost ruined the future of this person who is bright [smart] cause he has been struggling a lot at school (.) all I cared about was the drinking and myself (.) I didn't think about him (.) I regret what I did *mntasekhaya*[4] (.) I regret it" (Nono).

[4] *IsiXhosa* term meaning 'my people', used to refer to a person or a group of people of similar racial identity to whom the speaker may or may not be related by blood.

Concomitant problems

A number of difficult situations were referred to by participants. These situations were not necessarily related directly to the women's alcohol use. Nevertheless, they point to a general picture of complicated and difficult lives. For example, family members spoke about young women missing school: "She was not attending school. I had to call and ask if she did come to school. I went to school to check for her on the register. When I checked the register, in one month she went to school for 8 days." (Lumka, family member). In one case, school absence was directly related to drinking: "He gave her a letter to give to her parents because they found her and her friends in the school toilets with a bottle containing alcohol." (Linda, Family member).

Describing the social situation: crime, child-headed households, and poverty

Family members and partners described their community as dangerous and having high rates of crime such as rape and murder: "Anyone can get in to their house. She might open the door thinking it is one of her brother's friends and be in danger." (Lunga, Partner). "One day, my little sister came back from school and we were not there, a man came and raped her." (Lulu, Family member).

One family member described the difficulties of growing up without parents. Lulu, a family member, was 17 and her sister 16 when their mother passed away and they were left on their own. Lulu indicated: "He [a policeman] told my sister not to tell anyone about what he did [raped her]. He would come to our house and buy us food. We enjoyed that because we did not have hope where we would get our next meal and we hid what he did [kept it a secret]. … It's easy because if we were going to get money for doing something, we would do whatever we were asked to do". These kinds of hardships (abuse and food insecurity) are common amongst child-headed households in South Africa (Meintjes, Hall, Marera & Boulle, 2010). Lulu also spoke about their engagement in transactional sex: "We would go without having money. We would look for someone who could love you, and we would watch to see when he orders alcohol, how much does he use to buy alcohol? Does he have money? … We would go to sleep at his place and search for money when he falls asleep."

Family members and partners indicated that most pregnant women and their partners did not have a source of income and for those who did have one, it mostly came from social grants and part-time jobs: "What's worse is we are both not working. She does a part-time job, when she comes back the money will go to debts and it will be finished." (Lunga, Family member). One family member spoke

about the partner having to support the pregnant woman, using the threat of *intlawulo*[5] (damages) if he does not: "We did not come together because of the distance [between the families]. I told her there must be something placed on the table. It does not matter the amount, so that your family/home can take care of your child. Your boy[friend] needs to hustle so he can keep money, in case our family decides to go to him [negotiate the payment of damages] (Lumka, family member).

Justifying drinking: lack of partner support, stress, trauma, drinking culture and peer pressure

In this section, we discuss the ways in which participants either explained or justified women's drinking during pregnancy. These explanations included the lack of partner support, trauma and stress, HIV diagnosis and a lack of knowledge.

Lack of partner support

Many of the women in this study (7 out of 13 women) indicated that they drank as a result of their partners being unsupportive and unreliable. This revolved around three issues: the partner not providing for the pregnancy and subsequently, the child; cheating/being unfaithful; and the denial of paternity.

Participants indicated that financial support for both the pregnancy and the child was not forthcoming from their partners. Lucy said, "But he never gave me money … I had to ask my mother for money to take care of everything". In an environment where unemployment is high, this puts significant stress on pregnant women and their partners, as indicated by Nonny: "I was so frustrated when I got pregnant because my partner did not have a job and was not educated so (.) so (.) it was very hard for him to find a job. … you must know that I drank because I wanted to deal with the frustration".

Unfaithfulness was also mentioned. For example, Morongwa stated: "The main thing that made me drink that time [when I was pregnant] was not getting the truth from him [my partner] [about making the other woman pregnant], you see?". Morongwa stated that drinking helped her forget about what her partner had done. In addition, when drunk, she felt empowered to speak up about what was happening, despite the fact that the drinking potentially led to her partner hitting her. She said "But when I drank, I was not scared of saying what was on my mind".

[5] In the Xhosa culture when a woman gets pregnant prior to marriage, the family may negotiate with the man responsible to pay a fine (damages); this voids the shame attached to premarital child-bearing.

Denial of paternity, rejection and complete abandonment were mentioned by family members and women alike: "I saw a message, she sent a message to her boyfriend telling him she was pregnant. I saw a response message saying, 'I did not get you pregnant'" (Kuhle, family member). "She loved going to his (boyfriend's) place, I would tell her not to go to his place because he did not want her." (Liso, family member). "[…] said that the baby was not his and this made me very stressed, so this is when I started drinking (.) drinking made the stress better." (Cindy). "After I became pregnant (.) I got pregnant last year *nhe*[6]*,* so my partner disappeared and I never saw him again. We used to live together so one day (.) one day I came back from work and all his clothes were gone." (Rosey). Rosey implied that she would not have drunk alcohol if she had not been abandoned: "If he stayed and did not leave me, I wouldn't be talking like this *[participant crying]* (15). I wouldn't have drank because alcohol was never my thing".

Partners rationalised their rejection through reference to women's bad behaviour and rumours: "In our first born... in our first born, I did not believe that it was my child because of how she carried herself. She would go out and visit her family. When she was there, she would have fun (drink) with friends. When I went there, I would see that they are having fun with friends and other men…. I denied the pregnancy and kicked her out" (Khaya, partner). "I heard rumours that it was not my child, and this bothered me." (Sizwe, Partner).

Stress

Family members, partners and women reported that stress - an enduring pattern of tension - was a major factor in the women's drinking. Stress included fighting between partners, the breakup of relationships, being diagnosed with HIV, carrying an unwanted pregnancy, poverty and being in a child-headed household (see discussion above for the latter).

Three of the women who took part in this study shared that they were diagnosed with HIV during their pregnancies, which came as shocking news to both of them. Hope indicated: "I couldn't believe that I was pregnant and HIV positive, so the alcohol helped me forget about this, *sisi*." The stress of such a diagnosis was confirmed by family members: "What bothered her and made her drink, she got tested while pregnant. She found out she was HIV positive and that made her drink too much alcohol" (Lisa, family member). For one woman, the diagnosis was shocking enough that she considered

[6] The equivalent of "you see".

suicide: "It (the HIV positive diagnosis) affected me so much because I ate [took] poison, but it did not kill me" (Lulu).

The stress of a positive HIV diagnosis was exacerbated by stigma and concerns about confidentiality, as indicated by Pretty: "I drank for a long time because I thought about who I was going to tell about this. And you know, with such things, you want to tell a person who will not go out and tell others". The reluctance to share an HIV diagnosis was confirmed by family members: "When you get tested, they (healthcare providers) explain about the harms of alcohol and what you should do and not do and instruct you to tell someone. She did not tell anyone that she was HIV positive" (Lisa, family member). Given the high rate of intimate partner violence (IPV) in South Africa (Mokwena & Adeoti, 2014), disclosure to a partner may be very difficult, as indicated by Lulu: "He will see that I have this (HIV) and he would say I infected him. There is a high number of men killing women here at____ (name of the township). Maybe he will end up killing me."

Not only did the positive diagnosis of HIV mean increased drinking, but also engagement in other risky behaviour such as unprotected sex: "She told herself that she is HIV positive now, so she will die anyway. I should allow her to eat (enjoy) life. When I asked her if she does use condoms with the people she sleeps with, she said she doesn't have time for that, she will die anyway. And her child is affected too, what is she living for?' (Lulu, Family member).

Having an unplanned pregnancy was listed as a major stress factor, particularly if the woman did not anticipate support from her partner. The shock of discovering an unplanned pregnancy was outlined by some women: "I asked them to please test me again because I didn't believe [that I was pregnant] and they tested me again and they discovered that I was pregnant" (Nina). Some of these unplanned pregnancies remained unwanted. Three of the women spoke about drinking during their pregnancies in order to induce an abortion. Pretty indicates: "I spoke to a friend who was in a similar situation who told me that she drank alcohol (.) she said she drank shots of brandy so that she could take the tummy out [have an abortion] so I did this too but nothing happened". That heavy drinking could result in an abortion seemed to be a common understanding in the community, as indicated by Nina: "I asked around in the community how a baby is taken out [aborted], and they said *ha.a* (.) you have to drink black coffee or drink (.) or take a shot of brandy and drink it so that the baby comes out of your stomach [the abortion happens]".

Poverty was indicated as a clear stress factor. For example, Pearl said: "Because I was from a poor family (.) and we have no money and I did not know who the father of my child was (2), during my pregnancy, I was always worried about where my child was going to get the things he/she needed".

Trauma

Trauma was referred to by participants as causing drinking in pregnancy, with the alcohol being used to cope with distressing intrusive memories of the trauma. Traumas referred to by family members, partners and the women themselves included rape, losing loved ones during their pregnancies through tragic events such as murder, as well as intimate partner violence. For example, Lulu, a family member, related the following harrowing incident: "She was raped by someone we know, who stays in our area. He raped her and ran. She was raped, and we decided to go to police station … After reporting, ___ [name] who was a police officer there, said to my sister she must follow him. When they got to his office, he asked to see where she got raped. Only to find out he raped her as well." Cindy indicated: "When I was eight months *(clears her throat)*, my father passed away after he was stabbed in another area".

Intimate partner violence was mentioned by many family members, partners and women: "She found out that she was pregnant. Her man was beating her up." (Liso, family member). "At that time, she was not listening and used to drink. … Sometimes I would be so angry and end up beating her unintentionally." (Luvo, partner). "He came to my house and apologised [for previous fights] and I let him back in. I thought things would change, but we used to fight and he used to beat me." (Nono). "When I got pregnant, I told myself that I would stop drinking. But my partner kept on telling me to drink because he cannot drink alone and I used to say 'No, I am pregnant'. One time he beat me because I didn't want to drink, so after that day (.) I (.) I (.) I decided that I would drink with him and we did not fight a lot when we drank together" (Lucy).

Drinking culture

Participants reported that people drink a lot and that there are many shebeens in their community, the majority of which are illegal. When police conduct inspections, they usually do not reach illegal shebeens that are situated in informal settlements. Those they are able to reach and close down re-open soon after: "Yoh!! People drink so much here because we have MANY shebeens. … and police do not go there to close them down. … The shebeens do not close and everyone can buy alcohol from them, even pregnant woman" (Jade, family member). "There are many shebeens that operate 24/7. Police come and close them, and they open again." (Khethiwe). Participants reported that the lack of compliance of shebeens with liquor regulations influenced alcohol use in pregnancy: "People use alcohol beyond measures …. Young children at the age of 9-10 years can buy alcohol." (Lunga, Partner).

Traditional healing calling

One participant mentioned the possibility of the general 'bad' behaviour of a particular woman, including drinking, being a result of an ancestral calling to be a traditional healer: "A person with *umshologu* [spiritual madness] is someone who has a calling to be a traditional healer. Her grandmother said it could be *umshologu* because when you are about to become a traditional healer your behaviour drastically changes, and you don't listen. For example, I send her to school and she bunks school, she is not married and gets pregnant." (Lumka, family member). Later in the interview, however, Lumka resisted this interpretation: "But I told them, she cannot be sick at school. *Umshologu* is a Xhosa thing, school is Western, what does *umshologu* have to do with school?"

This process, known as *ukuthwasa*, reveals an in-born gift that manifests in afflictions and crises as a person grows. These afflictions and crises are viewed as normal processes to force a person to accept *ubizo* (the calling), as well as to train the person on how to deal with the hardships of others who may seek their help. Sometimes *ukuthwasa* involves signs that resemble madness, such as hallucinations and illusions. Due to these characteristics, it is known as *inkenqe* (cultural madness), or *umshologu* (spiritual madness) (Mlisa, 2009).

Peer pressure

Participants highlighted the role of others (e.g. friends) in influencing an individual's drinking behaviour during their pregnancy. For example, Cindy said: "The reason [is that] I was forced by my friends, even when I told myself that I wasn't going to drink (.) they brought alcohol and they told me to come and drink and I also ended up going to drink". The reason why Cindy was unable to resist this pressure from her friends may have to do with the possibility of being excluded from her friendship circle should she refuse (thus, the feeling of being "forced"). This kind of exclusion can be seen in Lola's statement: "My friends, with whom I used to drink, had a problem with me not drinking. They said I was boring and making myself better than them."

Positive stories: support and interventions

In the following section, we outline themes relating to positive or constructive engagement with pregnant women who drink.

Support for the pregnant women

A number of family members and partners spoke about the emotional support that they provided to the pregnant women: "I sat down with her and told her, she must not drink because the father of her child rejected her. Because rejection does not mean I am not here, and her father is not here." (Kuhle,

family member). "When someone is pregnant... even if your man impregnated you and left you, this does not mean that we at home or as your family we will reject you; we will support your child" (Liso, family member). Family members spoke about tangible support that they provided, such as financial support, baby-sitting, accompanying the woman to the antenatal clinic and offering advice on breastfeeding. Partners mentioned that they offered support by spending time with the women, encouraging them to decrease their alcohol use and stopping their own alcohol use: "I took a decision that there must be one person who stops drinking between the two of us, and I stopped." (Lunga, partner). Family members also spoke about changing their own behaviour to assist the woman: "But when I was not a church-going person, I used to shout at her and swear at her and beat her when she comes home drunk. But I stopped, I told myself that she is my wife and God sees. I stopped beating her" (Luvo, partner).

In addition to providing knowledge about the effects of consuming alcohol during pregnancy, healthcare providers were described as supportive in terms of preparing the pregnant women for childbirth, encouraging women to not miss their clinic visits, praising the pregnant women for being neat and wearing maternity clothes, as well as providing information on HIV and nutrition.

Family members and partners reported that the interaction that pregnant women had with church helped in reducing and abstaining from alcohol use: "On the third week, I asked them (the church) to visit my house at night. She was revived, and she stopped drinking." (Luvo, partner). "It [church] played a huge role [in the woman stopping her drinking] because you smoke or drink or fight when you are drunk, but when you go to church, there are changes that happen because they tell you what you must do and not do. Also, they pray for you." (Khethiwe, family member).

One partner reported that the pregnant woman consulted a traditional healer to get help for her drinking problem, and that her drinking behaviour changed after she was given traditional medication to use: "She changed after we prayed for her, and even went to consult a traditional healer. He [the traditional healer] told us someone poisoned her to never stop drinking alcohol. … So, the healer gave her some medicine and she was cleaned. He gave her something to vomit with and things like millipedes and lizards came out from her tummy." (Luvo, partner). Another partner indicated that they approached a traditional healer about the baby being stillborn: "The child died healthy and they don't know how it happened. We went to traditional healers. They told us the child was taken by one of the people she goes out with" (Lunga, partner).

Traditional medicine was also spoken about by one family member as being used for malicious purposes, leading the pregnant woman to restrict her movements: "Because there are people who use

traditional medicine for luck, people who do not wish others good. People get wrong traditional medicine. There are things like that, you walk and step on those things. Your child changes colour to green because of stepping on things you should not. When you are pregnant, you must stay at home and take care of yourself." (Lumka, Family member).

Support from the church was also seen as important by Nono: "The main thing was going to church (.) it really helped me, because most of the time I would not drink after coming back from church. But it was only for that day [i.e. Sunday] (.) if I did not go, I would drink". Here Nono talks about the physical act of attending church rather than the teachings. She is adamant that without this distraction, she would continue drinking. Pearl, however, found active support from the Pastor and other church members: "When we had problems at home when I was pregnant, I used to tell the Pastor at church. And other people that usually helped me were from the church, as well as the pastor and I spoke about my problems (.)… they were some of the people who would give me strength, you understand? They used to listen to me and not swear or shout at me like my family did." Here, Pearl talks about the active and empathic listening conducted by the Pastor and church members as important. Later, however, she contradicted this by stating: "I used to go to church during the time when I was pregnant, but then I stopped because at church (.) at the church where I go (.) when you are a woman (.) you cannot be a woman who has a child while you are not married, so I just stopped."

Interventions by families

Some family members indicated that they had to intervene directly to remove children from the women. These family members used the services of social workers to assist in this process. For example, Linda (family member) said: "If you can ask her [woman] now, who burned her [child], she will tell you. I took the child from her because she went out and drank. I stay with the child. Last week, I went to social workers to tell them that ____ (name of her daughter) left with the [social] grant card and she went back to Cape Town. I asked social workers for help because she will not get the child again".

One family member reported intervening with drinking establishment owners who sold alcohol on credit to her child, whom they were aware was still at school: "I asked her [woman who sells alcohol] for her [daughter's] phone [which was kept as surety]. I asked her, how can she give a school child alcohol and expect her to pay? What will she pay with? Because she is not working" (Linda, Family member).

Negative social norms: able-ism, negative gender norms

In this section, we deal with themes in which negative social norms were invoked. The first theme revolves around able-ism and the second theme unpacks gendered norms.

Able-ism: FASD children are a failure

All participants understood that drinking can cause the symptoms associated with FASD. Although not using the language of FASD, their understanding was generally factually accurate. However, in speaking about the risks of alcohol consumption during pregnancy, some participants spoke in ways that depicted FASD children in problematic ways. For example, Khethiwe said: "*Yoh*! The dangers of using alcohol in pregnancy is what I am currently seeing. If you drink alcohol in pregnancy, your child does not come out normal, like a child of a person who did not drink in pregnancy. Doctors say your child is a failure, s/he will be delayed, all because of alcohol use in pregnancy.". Nonny said: "She [my mother] told me that a pregnant person doesn't drink (.) I should never drink alcohol because I will ruin the baby (.) otherwise, when you drink, the baby comes out wrong.". Here, a direct correlation is made between alcohol use during pregnancy and abnormality, failure, ruination, and simply being "wrong".

There are two important issues regarding this way of speaking. Firstly, although it is factually accurate that there are physiological and cognitive consequences to drinking alcohol during pregnancy, attaching derogatory words to disabled people is problematic. This further perpetuates disablism, defined as "discriminatory, oppressive or abusive behaviour arising from the belief that disabled people are inferior to others" (Miller, Parker & Gillinson, 2004, p.9). Another implication of this, as Watermeyer and Swartz (2008) argue, is that disabled people continue to face the challenge of not being valued - which makes it difficult for them to be accepted, given the fact that non-disabled people view impairment as something that has to be questioned and judged. Secondly, when such descriptions dominate discussions regarding alcohol use, the role of the context in fostering drinking during this time is backgrounded, and the woman's culpability becomes foregrounded.

Gender norms

Gender norms are social and cultural constructions of the ways that women and men are expected to behave (Fladseth, Gafos, Newell, & McGrath, 2015). Participants spoke about how they did not like doing certain things because it is not what society defines as their role. "It does not sit well to me to be the one doing groceries, withdrawing grant money while I am a man, and be the one keeping the grant card while she is around" (Luvo, partner). Certain behaviours of a woman when she is drunk as

well as alcohol use in general were seen as masculine: "She fights, she loves fighting because she is masculine." (Liso, Aunt). Men leaving their partners during pregnancy was also normalised.

Some participants used gender norms to try and trigger changes in behaviour: "I sat down with her and I told her a woman must never drink while a man does not drink." (Lumka, Family member). Others used these norms to get women to accept their current situation. For example, in the following extract, Liso, a family member, normalised male abandonment and tried to persuade her relative that her only option is to accept this (presumably because these norms are so entrenched): "Leave the man because that's how men are. If he does not want you, it does not matter if he impregnated you" (Liso, Family member).

Discussion

Participants spoke about the women struggling to give up drinking and continuing to drink before and throughout pregnancy. These findings are corroborated by Watt et al. (2014), who indicate that patterns of drinking prior to conception are a strong predictor of drinking during the pregnancy period. Drinking was described as leading to conflict, with the women using any means possible to obtain alcohol and being untrustworthy.

The pregnancies were described as unintended (although not necessarily unwanted). These statements raise a number of important issues. The first is partner negotiation around reproduction. Research in South Africa shows that there are high levels of coercion in sexual encounters, and little negotiation around reproductive decision-making (Jewkes, 2009). Secondly, it is well known that alcohol consumption is associated with a range of risky practices, such as unsafe sex (Watt et al., 2012). Finally, the challenge in terms of FASD is that approximately half of pregnancies are unplanned and that many women consume alcohol at pre-pregnancy levels prior to knowledge of pregnancy (Balachova et al., 2014).

Participants spoke about the stigma accruing to early pregnancy. Research in South Africa corroborates this. For example, in a study conducted by Bhana, Morrell, Shefer, and Ngabaza (2010) to explore the views of teachers towards pregnant learners in South African schools in the Western Cape and KwaZulu-Natal, it was found that teachers believe that schools should be "spaces of sexual innocence" (p.874) and that learners who get pregnant while still at school are sexually immoral. As has been repeatedly shown in research on sexuality education, abstinence-only sexuality education (i.e. promoting abstinence with no information being provided on sex, contraception, pregnancy and abortion) is ineffective (Glover & Macleod, 2016). Instead, comprehensive sexuality education, which

acknowledges young people as sexual beings and that portrays responsible sexual relations in a positive light, is much more effective in preventing a range of problems.

Stigma and shame accrued to both the women and their families regarding drinking during pregnancy. This led to the women engaging in self-exclusion from certain spaces and surreptitious behaviour – in other words, it did nothing to decrease their drinking.

Despite mentioning a few isolated examples of misunderstandings, most participants knew and indicated that others knew about the dangers of drinking during pregnancy, with knowledge coming from various sources, including 'Xhosa culture'.

Participants referred to a number of social problems that are common features of their lives. Crime was mentioned frequently. Indeed, the poor in South Africa are more exposed to interpersonal crimes such as assault, murder and rape than those from the middle classes (Kruger, & Landman, 2008). This demonstrates that life in low-income urban communities in South Africa is characterized by a cycle of crime and violence (Hinsberger, 2016).

One participant spoke about the multiple hardships of growing up in a child-headed household. Mturi (2012) summarises these hardships as: serious threats to education because of poverty; difficulties in obtaining food and shelter; a high risk of being sexually abused by relatives and neighbours; the threat of child prostitution and child labour; difficulties in getting birth registration, which is a prerequisite in procuring healthcare and social security benefits; and experiencing property grabbing by families and communities. Transactional sex enables child-headed households to survive. Ranganathan et al. (2017) argue that transactional sex is primarily motivated by basic survival or subsistence needs, although there is also recent evidence that indicates that young women whose opportunities are limited may also use transactional sex to elevate their status, particularly in youth cultures that prioritise sexual success and conspicuous consumption.

In their narratives, participants explained or justified drinking during pregnancy. A major factor reported was the lack of support from partners. This centred on three issues: not providing for the pregnancy and resulting child; cheating or being unfaithful; and denying paternity. Gearing et al. (2008) argue that a fundamentally important, but frequently minimised and ignored factor, is the role of fathers in the issue of FASD. Kaye et al. (2014) states that the ideal supportive partner that women desire in pregnancy is accessible (present, available, a team player) and responsible (is concerned, maintains connection with the woman carrying the child regardless of the partnership status, and is a caregiver, provider and/or protector). Lack of paternal involvement is associated with decreased birth

weight, decreased prenatal care, younger gestational age at birth, and increased complications in pregnancy (Cohen et al., 2016). Also, insufficient support from partners during pregnancy leads to an increase in the use of alcohol, smoking, and substance use (Aktas & Calik, 2015). Phiri (2015) argues that dissatisfaction with partner support among pregnant women is associated with depressive symptoms, worries, and general emotional distress. Depressive symptoms and general emotional distress may contribute to drinking in pregnancy (Silva et al., 2016). Other research conducted in South Africa shows that denied paternal responsibility is associated with negative maternal mental health (Nduna & Jewkes, 2012), and is a deeply degrading and humiliating experience for women (Mmusi-Phetoe, 2016). A recent South African literature review demonstrated that women's relative disempowerment in relationships with men reinforce unequal positions in families, societies and public domains (Fladseth et al., 2015).

Stress was also mentioned as a major factor in drinking. Stress included fighting between partners, the disintegration of relationships, being diagnosed with HIV, carrying an unwanted pregnancy, poverty, and being in a child-headed household. Findings from qualitative studies conducted in Canada (Kruk & Banga, 2011; Zabokta, Bradley, & Escueta, 2017), the United States (Jackson & Shannon, 2013; Zabokta et al., 2017) and South Africa (Eaton et al., 2014a; 2014b; Watt et al., 2014) confirm that pregnant women turn to alcohol and/or drugs in an attempt to cope with past and present stressors in their lives. This may be particularly pertinent for women who have been marginalised as a result of the legacy of apartheid (Cloete & Ramugondo, 2015). For some South African women, drinking during pregnancy may be seen as a way of responding to living in a troubled society in which they have been exposed to adverse economic and socio-political conditions for an extended period of time (Cloete & Ramugondo, 2015).

The shock of being diagnosed with HIV during pregnancy, and the concomitant reluctance to share this news with others is worrying. Walcott, Hatcher, Kwena and Turan (2013) argue that disclosure may be particularly crucial for pregnant women, as they are at increased risk for HIV acquisition (male-to-female) and transmission (female-to-male). Furthermore, without partner support, it is often difficult for women to adhere to HIV treatment and to breastfeed, both of which reduce transmission of HIV to their infants, and protect their own and their partner's health.

Relatedly, trauma was referred to by participants as causing drinking in pregnancy. Traumas referred to by family members, partners and the pregnant women themselves included rape, losing loved ones during their pregnancies through tragic events such as murder, and IPV. IPV has been taken up by South African researchers, who highlight the association between alcohol use by pregnant women

and/or expectant fathers and greater likelihood of experiencing intimate partner violence (IPV) (Eaton et al., 2012). Abused pregnant women may develop symptoms like low weight gain during pregnancy, infections, high blood pressure, and vaginal bleeding; they may also suffer from post-traumatic stress syndrome, anxiety disorders including panic attacks, depression, sleeping or eating disturbances, tobacco, alcohol, or drug abuse, or suicidal syndromes (Abadi et al., 2012). For women during a pregnancy period, IPV has serious implications because their pregnancy may have been a consequence of violence itself (Teixeira et al., 2015). Women experiencing domestic or intimate partner violence may feel caught in a vicious circle due to societal norms. They may internalise the stigma and consequently not ask for support when they are in need, and because they are afraid of additional violence by their husbands/partners if they become aware of their disclosure. They may even be stigmatized by other family members or government officials for violating societal norms by disclosing the abuse (Abadi et al., 2012). Consequently, women may use alcohol during pregnancy as a way of coping with the trauma and fear that comes from the intimate partner violence or domestic violence happening at home. In their study, Choi et al. (2014) found that following pregnancy recognition, pregnant women with prior experiences of intimate partner violence or childhood abuse tended to drink at elevated levels. Thus, it is not only present trauma that contributes to drinking during pregnancy, but also past trauma.

Participants spoke about the drinking culture in their community and the operation of many illegal shebeens. Studies conducted in Australia, the United Kingdom (e.g. Meurk, Broom, Adams, Hall, & Lucke, 2014; Raymond, Beer, Glazebrook, & Sayal, 2009) and South Africa (Kelly & Ward, 2017) have shown that some pregnant women drink during their pregnancies as a result of alcohol forming an important part of their social lives. As such, they did not regard the consumption of "acceptable" levels of alcohol (one glass of wine once or twice a week) as enough to put the foetus at risk. Indeed, in many parts of South Africa, alcohol use and abuse is normalised and socially acceptable (Cloete & Ramugondo, 2015; Evans, 2015; Watt et al., 2014). Some women spoke about peer pressure to drink, implying that not to drink means foregoing social recognition in friendship circles.

Gearing et al. (2005) argue that most young women who quit or reduce their drinking during pregnancy were encouraged by others, specifically family members, to avoid alcohol use during their pregnancies. Women who have good social support were more likely to abstain from alcohol consumption during pregnancy, compared to those who do not (Abadi, Ghazinour, Nojomi, & Richter, 2012). In this study, family members and partners spoke about providing emotional and tangible support to the pregnant women. Women participants also indicated that they experienced support from some members of their family. Indeed, the stability of the couple-relationship is

associated with a decreasing risk factor in women who consume alcohol while pregnant (Gearing et al., 2005).

Social support in general is significantly related to the reduction of alcohol use in pregnancy (Van der Wulp, Hoving & Vries, 2013). Participants in this study spoke about the support provided by health care providers, the church and traditional healers.

Finally, a number of problematic social norms were invoked by participants in this research. The first refers to what disability activists call able-ism – the discrimination of people based on their ability and the social creation of barriers to full participation in society by people with impairments. In this research, participants spoke of children with FASD being 'abnormal', a 'failure', 'ruined', and simply 'wrong'. In addition, particular gender norms (for instance, care-work as not being masculine or assertiveness not being compatible with femininity) define particular behaviours as acceptable and unacceptable for men and women.

PROJECT 3:

Formative assessment of FASfacts interventions

In this project, qualitative data were collected from the two interventions (Train-the-Trainer Programme and the Pregnant Women Mentoring Programme (PWMP)) in the form of the manuals and materials used, recordings of training sessions, interviews with trainees and service providers, and recordings of mentoring sessions. The aim of this data collection was to provide formative feedback on the ways in which the interventions may be improved. In particular, the research highlighted the ways in which the interventions manage or fail to empower community members and pregnant women, and the ways in which they can be improved upon. Feedback on aspects of the interventions took place during the roll-out of the programme.

In the following we provide a brief review of relevant literature and research in order to ground the recommendations made in the various formative evaluation reports. Thereafter we present the findings of the various stages of the formative evaluation. The first formative evaluation presentation, accompanied by a report, took place in March 2017. This addressed the manuals used in the training of community members. The second, on the training sessions, was presented in August 2018. The final report was delivered in December 2018. This report outlines recommendations regarding the Pregnant Woman Mentoring Programme.

Brief literature review

In this section, we discuss research on the following areas: a harm reduction approach to substance abuse interventions; factors that contribute to alcohol consumption by pregnant women; maternal alcohol consumption and FASD; early interventions with prenatally alcohol exposed infants and carers; the importance of the mother-child relationship; and media reception. This discussion will form the basis for suggestions in the following sections.

Harm reduction approach to substance abuse interventions

Whilst traditional approaches to intervening in high-risk activities have been to advocate complete abstinence from the activity, more recent approaches have tended to focus on harm reduction. The key tenets of harm reduction models are as follows (Logan & Marlatt, 2010; Marlatt & Witkiewitz, 2010):

- Any step in the right direction is supported. Abstinence is not insisted upon, although that may be the ultimate goal.
- The harmful behaviour is neither ignored nor condemned. A non-judgemental attitude is crucial.
- The intervention is individualised according to the needs of the client and their community
- It aims to meet individuals and communities 'where they are at'
- Motivational interviewing (MI) techniques are used. This entails:

  → Exploration of, and empathy for current realities;
  → Surfacing the *client's* ultimate goals regarding substance use, and respect decisions both for and against change;
  → Looking at the discrepancy between what the client wants and where s/he is currently;
  → Accepting resistance to change;
  → Collaboratively setting achievable, step-wise goals;
  → Building self-efficacy – identifying and building on client's strengths;
  → Identifying supportive people/structures within the client's community, and discussing ways of accessing their support;
  → Identifying alternative behaviours to the substance use;
  → Practicing refusal skills;
  → Making contingency plans for when relapse occurs.

A harm reduction approach enables users to achieve success in modifying some of their behaviours, which raises self-efficacy for future change. This often leads users to abstinence (Marlatt & Witkiewitz, 2010). Harm reduction approaches often incorporate normative education on populations' usage of the substance in question (Marlatt & Witkiewitz, 2010). It has been shown that heavy drinkers generally over-estimate the amount that their peers drink, and assume that their own usage is within the norm (Neighbors et al., 2016). Education about the normative usage of peers influences heavy drinkers to reduce their drinking in line with these norms (Neighbors et al., 2016). Whilst the normative alcohol use may be unacceptably high within some pregnant women's contexts, it may be valuable to provide the norms of drinking in a wider population. This can assist users to judge whether their own use is much higher than normal.

It has been shown that the provision of information alone, particularly with young people, is not generally sufficient to lead to behavioural change (Logan & Marlatt, 2010; Stockings et al., 2016), and those interventions that incorporate skills training are more likely to be effective (Stockings et al., 2016). Skills training can include training in social skills, resistance and coping skills, stress reduction, and collaborative identification of less risky drinking habits (Marlatt & Witkiewitz, 2010). Skills training strengthens the clients' own resources to assist them with modifying their behaviour.

As yet, there have been no identified iatrogenic effects from harm reduction interventions (i.e. they don't lead to increased use or more harmful use), whilst some abstinence-based interventions have been shown to have negative effects (Logan & Marlatt, 2010; Marlatt & Witkiewitz, 2010). Whilst harm reduction approaches have not yet been found to reduce long-term prevalence of substance use, a number of interventions based on harm reduction principles have demonstrated significant reductions in harmful use (Logan & Marlatt, 2010). Additionally, harm reduction approaches are able to recruit more substance abusers, and demonstrate less client attrition, than abstinence based programmes (Logan & Marlatt, 2010).

Factors that contribute to alcohol consumption during pregnancy

Authors who have conducted qualitative research in areas with high FASD prevalence identify the cultural, historical, political and economic roots of heavy alcohol use. They highlight the legacy of the *dop* system, the lack of economic and social self-determination in poverty stricken areas, and the endemic community-wide and personal trauma within such areas as contributing factors to excessive alcohol use (Cloete, 2012; Watt et al., 2014). FASD can be seen as "a symptom of an array of underlying social, economic and political problems" (Cloete, 2012, p.2).

Cloete (2012) interviewed women who drank during pregnancy, and identified two overarching themes, namely: "Being drunk is the norm" and "Ek is 'n drinker en klaar" (p. 2). The first theme indicates the context within which women drink. If social practices are organised around drinking, and being drunk is the norm, then getting drunk is one of the primary ways of being a 'normal' young woman. Meurk, Broom, Adams, Hall, & Lucke (2014), who conducted interviews in Australia, also discuss the difficulties some pregnant women face in not drinking, due to social expectations. Thus, addressing normative expectations of alcohol consumption is an important interventional task.

The second theme Cloete (2012) identifies indicates the identity of drinking women. Meurk et al. (2014) likewise found that alcohol consumption is an important part of the identity of women who continue to drink through their pregnancies. This suggests that work needs to be done to assist drinking women to shift their identities to more functional ones. Regarding shifting identities, Cloete

advocates a self-empowerment approach to interventions based on Freire's ([1970]1993) principles of dialogical pedagogy (this will be expanded on in section 3.3.2.) She also highlights the need for women to have alternative occupations to drinking.

Watt et al. (2014) interviewed 24 drinking women who were pregnant or recently post-partum. Recruitment occurred in alcohol-serving establishments in a township outside Cape Town. The majority of the participants engaged in binge drinking several times a week. The educational attainment of the women was low, and none had full time employment. Only four women were married, and only one had a planned pregnancy. Two women ceased drinking after pregnancy recognition, and two reduced the frequency of their drinking. The remaining 20 women continued to drink at elevated levels after pregnancy recognition despite knowledge of the harm that alcohol consumption could have on a foetus. This suggests that just providing knowledge about the teratogenic effects of alcohol is insufficient to help drinking women change their behaviour during pregnancy. Four of the women reported that their consumption increased during pregnancy. Watt et al. (2014) identified five themes within their data that explain the continued drinking of women during pregnancy:

1. **Alcohol use as a strategy to cope with stressors and negative emotions**. As well as the ongoing stresses of poverty and lack of social support, the women in Watt et al.'s study reported that their pregnancy itself was a stressor, causing them shame, and anxiety about how they would care for a baby in their straitened circumstances. Additionally, HIV testing occurs during pregnancy, and this can cause obvious stress. Intimate partner relationships were also a frequent cause of stress, with abandonment due to the pregnancy, and physical abuse being common. Alcohol was used as a means of managing stress. For example, one woman said "I was scared because it's my first child, and I don't have parents, so I don't know what to do. So every time I think of that I will go and drink" (Watt et al., 2014, p. 122). Providing quantitative evidence for negative mood and associated drinking during pregnancy, Tomlinson et al. (2014) surveyed 1,145 pregnant Xhosa women in 24 separate townships around Cape Town. They found that 37% of the women's scores on the Edinburgh Postnatal Depression Scale indicated depressed mood, and depressed mood was significantly associated with alcohol use. Furthermore, while women generally tend to decrease their drinking after pregnancy recognition (although those who drink at hazardous levels prior to pregnancy usually continue to drink heavily), those with a history of childhood or recent trauma are less likely to decrease their drinking, and may even increase their alcohol consumption (Choi et al., 2014). Choi et al. (2014, p.7) state that "(r)ecognition of

pregnancy may act as an additional stressor that interacts with the woman's trauma history to increase distress and related drinking behaviour."

2. **Alcohol use as a way to maintain social connections.** With few opportunities for recreation or employment in impoverished settings, visiting a *shebeen* or drinking at a friend's house is an important means of socialising, of occupying one's time, and of retaining connections during the life-changing pregnancy period (Cloete, 2012; Watt et al., 2014). Watt et al (2014, p. 122) suggest that drinking "may represent resistance to transitioning to a life of motherhood that is more laden with responsibilities." Cloete (2012) highlights the need for the provision of alternative occupations for women living in impoverished settings.
3. **Alcohol use as normative during pregnancy.** There was a pervasive sense amongst the participants in the studies by Watt et al. (2014) and Cloete (2012) that it is normal to drink during pregnancy.
4. **Lack of attachment to the pregnancy.** Only two women in Watt et al.'s study (both of whom had reduced or ceased their drinking) verbalised protective feelings towards their unborn child. The remainder did not express attachment to their foetus during their pregnancy, and rather expressed their disconnection from or rejection of the pregnancy. Two women attempted to abort their pregnancies through excessive drinking. This points to the lack of support both nationally and within communities that women receive in accessing legal termination of pregnancy services (Trueman & Magwentshu, 2013).
5. **Alcohol addiction.** Although alcohol addiction was not admitted by the women in the studies by Cloete (2012) and Watt et al (2014), it was clear that the majority were dependent on alcohol.

We believe that it is important to be sensitive to all of the above issues when attempting to intervene with alcohol consuming pregnant women. Training of trainers and mentors needs to highlight these issues and there needs to be discussion about how FASfacts can support drinking women, rather than 'educate' drinking women.

Effects of low consumption on the foetus

Whilst frequent and heavy drinking (particularly binge drinking) during pregnancy has been conclusively shown to be associated with adverse birth outcomes (spontaneous abortion, stillbirth, low birth weight, preterm birth, and babies being small for gestational age) and FASD (Flak et al., 2014; May et al., 2008; Patra et al., 2011), studies on the effects of low to moderate consumption are inconclusive as yet. Whilst complete abstinence from alcohol during pregnancy is recommended, as there is no known safe consumption amount, it cannot be stated conclusively that low amounts of

alcohol adversely affect the foetus. Patra et al. (2011) found no apparent effects on birth outcomes when mothers drank up to an average of about one drink a day (10g pure alcohol/day), but there was an increasing risk for these occurrences with increasing alcohol consumption, as well as the risk of ongoing, compromised postnatal development. Holmgren (2009) conducted a systematic literature review of studies looking at the effects of 1-4 drinks per week prenatally on the child. Children were examined between the ages of 3-16 years for cognitive and socio-emotional deficits. Out of six studies, half of them showed a positive association between low alcohol consumption and childhood deficits, and the other half did not. Flak et al. (2014), in their meta-analysis of 34 studies, could find no consistent evidence that cognition, or visual or motor development, was affected by mild or moderate (up to six drinks per week) pre-natal alcohol exposure, but their results suggest that moderate consumption (3-6 drinks per week) may affect child behaviour (social engagement, affect, and conduct). Unfortunately, neither Holmgren (2009) nor Flak at el (2014) controlled for the frequency or timing of the weekly alcohol consumption. May et al. (2013) found that there was a possibility of FASD occurring with binge drinking by as little as 3 drinks per episode twice a week. Gavaghan (2009) reports that studies have not been able to find correlations between cognitive or behavioural deficits and prenatal alcohol exposure of 1-2 drinks per week or per occasion. While there is generally a dose-response effect in terms of the frequency and quantity of alcohol consumed during pregnancy and the amount of damage to the foetus, there is great variation in the severity and symptoms of FASD, which is not entirely explained by the quantity and frequency of drinking during pregnancy (May et al., 2008). Genetic, biological, social and psychological factors appear to mediate the effects of alcohol on the foetus (Flak et al., 2014; May et al., 2008; 2013).

Maternal nutrition and FASD

May et al. (2014, p. 32) report that "(t)he teratogenic effects of alcohol are increased under certain micronutrient deficiencies such as iron, zinc and choline". Alcohol consumption and poor nutritional intake during breastfeeding is also likely to affect the newborn child due to alcohol exposure through the breastmilk, and reduced delivery of nutrients. Furthermore, even when dietary intake is adequate, chronic alcohol use can reduce the absorption of micronutrients (May et al., 2014). These authors conclude by suggesting that nutritional supplementation for women of childbearing age may be warranted as a public health intervention. Additionally, food intake just prior to, or concurrently with, alcohol consumption can lessen the toxic effects of the alcohol May et al., 2014).

Early interventions with prenatally alcohol exposed children and carers

Factors such as maternal education and health, as well as cognitive stimulation (or lack thereof) of a prenatally alcohol exposed (PAE) child during her formative years mediates the neuro-behavioural effects of prenatal alcohol exposure (May, Marais, & Gossage, 2013). Good postnatal conditions can enhance the brain development of a child with FASD (May et al., 2013), and there is emerging evidence that deficits in social skills in children with FASD can be ameliorated with focussed social skills interventions (Kully-Martens, Denys, Treit, Tamana, & Rasmussen, 2012). Thus, it is important not to portray FASD as a condition for which there is no hope of improvement.

The importance of the mother-child relationship

The mother's relationship with her child begins during pregnancy. A positive mother-child relationship, in which a mother is attuned to her child's needs, is critical for the mental health and development of the child (Pajulo, Suchman, Kalland & Mayes, 2006). One of the necessities a good carer-infant relationship is the ability of the carer to reflect on the child's internal experience (this is called 'reflective functioning'), and manage her/his negative emotions in a stable and caring way (Grienenberger, Kelly, & Slade, 2005; Slade, 2005). This, in turn, is premised on the carer's capacity to reflect on her own emotional experiences, and be able to hold her own negative emotions without externalising them (Slade, 2005). Maternal depression, and/or negative maternal experiences such as being the victim of recent or past trauma, neglect, or abuse, can significantly disrupt the mother's ability to respond positively to her child (Santona et al., 2015; Schechter et al., 2005). There is emerging evidence that interventions with substance abusing women to enhance the mother-child relationship, starting in pregnancy, assists the women to invest in their child rather than a substance of abuse, and that this leads to greater maternal abstinence (Belt et al., 2012; Pajulo, Suchman, Kalland, & Mayes, 2006).

Media reception studies

There is a risk that threat-based messages about the harm caused to the foetus by alcohol be perceived as sensationalising or over-stating the consequences, and therefore be rejected by those targeted by these messages (France et al., 2014). Authors have found that the following two strategies reduce the risks of defensive reactions and message rejection, as well as being persuasive and likely to increase women's intentions to abstain from alcohol during pregnancy:

- Messages about the risks should be honest and factual, delivered in a supportive manner, and should acknowledge the current medical uncertainty regarding the risk of low to moderate alcohol consumption (France et al., 2014);

- Risk-based messages should be combined with positive and practical messages that promote self-efficacy, for example, by giving practical advice on how to reduce/abstain, and by telling personal narratives of others who have succeeded in abstaining (France et al., 2014; Smith & Bonfiglioli, 2015). Such messages arouse positive emotional responses (France et al., 2014), which is important when aiming for behaviour change.

Mentoring training

Interventions which have shown success in assisting people to reduce their alcohol consumption frequently make use of Motivational Interviewing (MI) techniques (May et al., 2013). This is a counselling method developed for use with people with a substance use disorder. The basic tenets of this approach are outlined earlier.

Report 1: Manuals and Powerpoints

This report formed the first part of the formative evaluation process, concentrating on the manuals used in training trainers and mentors. Using insights from the literature on alcohol use during pregnancy and an empowerment approach, we provide input on areas of strengths of the manuals and areas where we believe that improvements can be made. This report is a reflection of the manuals only, and makes no claims about how the training is implemented or received. We are aware that the training conducted using the manuals is for trainers and mentors, not actual pregnant women. However, the trainers and mentors will carry through the tone and messages that they received in their training to pregnant women. We therefore feel that it is very important that clear empowerment messages are contained in the manuals.

Areas of strength in the manuals and powerpoints

We believe that the Pregnant Women Mentoring Programme (PWMP) and Train-the-Trainer Programme (TTP) are innovative and much needed interventions. The training of local community members to be trainers and mentors not only harnesses the resources of the local community, rather than 'importing' resources from outside, but it also ensures that the input given to the trainers and mentors stays within the targeted community. This hopefully promotes a bottom-up growth in community awareness about FASD. Furthermore, the provision of mentors to alcohol consuming pregnant women no doubt provides vulnerable women with much needed support and assistance. Elements of the manuals and powerpoints that we felt are useful in achieving the goals of FASfacts are presented below.

Use of video clips and coloured pictures

The use of video clips and coloured pictures help to increase audience engagement. This is important in terms of the trainers and mentors internalising the core messages of the training, as well as being able to reflect on the issues that they need to take up in their interactions with pregnant women and community members.

Provision of information on foetal development, pregnancy and labour, and nutrition

Information contained in the manuals helps trainers and mentors to engage with pregnant women to understand what is going on in their bodies through pregnancy, how their foetus is developing, and to mentally prepare for their labour. Trainers and mentors will be able to help them to think about their developing foetus, and to anticipate having a baby, which helps with the bonding process (Pajulo et al., 2006). The information on healthy nutrition during pregnancy gives pregnant women some positive behaviours to engage in (but see comments in the next section on ensuring contextual relevance, and using positive messaging.)

Attempts to include fathers

It is good to try and encourage pregnancy partners to be involved and take responsibility for the pregnancy. While there is evidence that many pregnancy partners simply abandon pregnant women or provide little by way of support, there are also initiatives to increase the involvement of men in care work (e.g. the work of Sonke Gender Justice). The inclusion of partners in the manuals is to be welcomed as assisting with gender equality (but see comments in the next section on ensuring contextual relevance.)

Module 2 – Alcohol and drugs

The acknowledgment of societal/environmental factors which can lead to drug/alcohol abuse on p. 34 (for example: *The use of especially alcohol, is seen as 'normal')* and p. 36 is very helpful. As we know that substance abuse arises largely due to societal and environmental factors, we would recommend foregrounding these factors throughout the manuals, and expanding on them. This would promote empathy for users, and highlight what needs to change in order for alcohol abuse to decline.

The facts given about the process of dependency may also be of value. This is done mostly in a non-blaming manner.

P. 44 – There's a nice acknowledgment that an alcoholic often feels misunderstood and blamed. It is important to promote understanding and a non-blaming approach to alcohol users throughout the manuals.

P. 47 – There's a helpful provision of organisations that can help with alcohol abuse. It would be important to update these organisations for the East London area, and give phone numbers and physical addresses.

Areas recommended for change

In this section, we give suggestions for adjusting the manuals, in line with the current research findings outlined above. There are five broad areas which we suggest require attention: two relating to factors which could have unintended negative effects, two relating to areas of lack, and one to the style of information presentation. Our first concern is that there is an inordinate amount of responsibility placed on the individual pregnant woman to abstain from drinking, (and blame if she does drink), with very little acknowledgement of the myriad contextual and environmental factors that lead to alcohol consumption during pregnancy. This may induce shame, which is associated with depression (Orth, Berking, & Burkhardt, 2006). Shame and depression not only disrupt a mother's ability to bond with her new baby, but also do not assist her in abstaining from or reducing harmful behaviours; indeed, they often lead to a paradoxical increase in the harmful behaviours. Secondly, we are concerned that the repeated emphasis on the likelihood of FASD individuals getting involved in crime is highly stigmatising of such people, and of disabled people in general. Our third concern relates to a lack of attempt to enhance the strengths and skills of drinking women. Our fourth concern is that there is a paucity of training in the actual skills of mentoring for the mentors. Finally, we are concerned that the style in which information is presented in the manuals may be off-putting to some people, possibly leading to programme drop-out.

Reduce the potential for blame and shame-induction

In this section we outline strategies that could be used to reduce blame and guilt. These include utilising a harm reduction approach, promoting empathy for women who do drink, and eliminating blaming or stigmatising language.

Move from an abstinence-based approach to a harm reduction approach.

As indicated above, a harm reduction approach has been positively received in the literature. Examples of how the wording within the manuals can be changed in order to move towards a harm reduction approach are as follows:

Examples from manuals	Challenge	Possible alternatives
P. 21 – *The mother simply must drink **NO! ALCOHOL** while she is pregnant!*	This does not provide positive messaging that speaks to a harm reduction strategy.	"The ideal is to not drink at all. This is best for the developing foetus" "The **more** the pregnant woman is able to reduce her drinking, the **better** it will be for her baby" "The women should try to avoid going to places like the *shebeen* where drinking occurs. However, If she finds it too difficult to stop going to the *shebeen,* she should try and eat a meal before she goes. Food in the stomach means the alcohol causes less harm to the foetus"
P. 16 – *Just a little alcohol can cause **serious, life-long brain damage** to the unborn baby.*	It would be better to have more factually accurate messages.	"We know that drinking even 2 glasses of wine at a time might cause some damage to the unborn baby. Even smaller amounts might cause damage in certain women" "The more drinking that happens in pregnancy, the more it damages the foetus. The best option is to try to not drink at all, if possible"
P. 15 – picture of normal and FAS brains: *"One mother did not drink during her pregnancy whilst the other mother did drink."*	Try to provide some nuance to statements, and avoid scare tactics, which drive people away. Full blown FAS results only from excessive drinking.	"One mother did not drink during her pregnancy whilst the other mother drank excessively throughout her pregnancy"
There is repeated 'shouting' – capital letters, enlarged font, bold type.	This can lead to audience disengagement, and a sense of being coerced into a certain position.	We suggest keeping such stylistic devices to a minimum.

Promote empathy for women who drink while pregnant

Socialisation is a crucial occupation for everyone. If "excessive alcohol use is the very thread on which social relations are built" (Cloete, 2012, p. 39) in a woman's community, then asking women not to drink may seem like asking them to commit social suicide. Furthermore, if drinking is a response to trauma and an 'imposed occupation' (Cloete, 2012), then portraying alcohol consumption as a 'choice' may be counterproductive.

Examples from manual	Challenge	Possible alternatives
P. 9 – *Finally we must make a CHOICE: a choice of suppressing of your emotional pain for a short while, or to have a 'lekker' social life…* ***or a life sentence of suffering for your child.*** *What do you choose?* **P. 16** – *Do not decide on behalf of the precious baby that you are carrying, that he or she is not going to be successful.* ***Don't rob your child of a future with hope and good possibilities****!* *...What do you choose? A FAS child, or a child with a bright future?*	Portraying the substance use as a 'choice' can be very shame-inducing. This does not lead to behaviour change, particularly amongst frequent/heavy users, who usually do not feel that they have the resources or ability to make a choice. Women rather require empathic understanding in such situations.	Discussing how difficult it might be to socialise without alcohol. Brainstorming with the audience about alternative ways of socialising. With mentors and trainers being drawn from the local community, they would have the best knowledge of locally available alternatives to alcoholic social occupations. Discussing various factors that promote drinking among pregnant women (see section 2.2). Discussing the kinds of support that may help a pregnant woman to reduce her alcohol intake. Deleting any 'choice' rhetoric.
P. 16 –*Do not let your circumstances put you in a mindset of despair...and then numb your negative feelings with drink.*	Here is an acknowledgement of the despair that some women may feel, but it offers no alternatives as to how to deal with that despair	Acknowledge how circumstances often do lead to despair and discouragement, and how stressful pregnancy can be; Discuss the varying sources of stress that a pregnant woman may face; Brainstorm with the audience adaptive ways of dealing with despair and stress (e.g. speaking with a mentor/counsellor/social

		worker/trusted friend or family member; doing some exercise/playing sport; dancing (without alcohol!); going out with friends to the beach/park)

Eliminate blaming or stigmatising language

We are aware that FASfacts does not intend to blame alcohol consuming or teenaged pregnant women, but we fear that some of the language used has such an effect.

Examples from manual	Challenge	Possible alternatives
P.3 – *If the baby is unplanned, this tiny little person is even more vulnerable. What happens when teenagers get pregnant? Do they welcome this child? Do they feel proud? Do they feel confident that they can look after the child? Or are they confused? If so, then the unborn baby senses the confusion. Is this a good way for the unborn child to start life? If the mother drinks, the baby drinks too!*	Many women in impoverished areas fall pregnant as teenagers. Confusion is a normal feeling for pregnant women to experience, regardless of their age. This paragraph constructs pregnant teens as being unwelcoming, lacking in pride and confidence, and as fundamentally bad mothers. If teen pregnancies are constructed as evil, bad, or detrimental, this increases the likelihood that they will become detrimental.	"It is normal for a woman to feel confused and overwhelmed when she discovers that she is pregnant". "If you and your partner are able to use contraceptives regularly, this can stop a pregnancy from occurring before you are ready for it." Brainstorm reasons for unplanned pregnancies with the audience.
P. 16 – *The pregnant woman deprived her child of having a hopeful future with opportunities.*	The blame for FAS, and lack of opportunities, is primarily due to societal issues, not due to individual, misbehaving pregnant women who choose to deprive their children. Blame tends to drive people away, and guilt and shame can lead to depression, which in turn can drive up drinking and interfere with the ability of a	Discussing how *alcohol,* rather than pregnant women, damages unborn children, and makes it harder for them to achieve in life. Discussing the avenues through which alcohol gets into the lives of pregnant women (e.g. though friends and family drinking, despair, poverty, lack of other occupations etc).

	woman to bond with her new baby.	
P. 10 *– How many people in this country sustained life-long brain damage because the pregnant women drank alcohol?* ***Answer: 7 – 9 million people!!***	We have no accurate figures of the prevalence of FASD in SA. A rough estimate is 2 million people (Charles Parry, personal communication, 7th March 2017). This sentence places culpability entirely on pregnant women.	"Millions of South Africans have brain damage because they were exposed to alcohol whilst still in the womb. As a community we need to provide the support needed to reduce this incidence".

Try to not stigmatise people with FASD

Examples from manual	Challenge	Possible alternatives
P. 16 *– Many people with FAS get involved in crime...for example: teenage pregnancy, theft, assault, rape and murder"* ***P. 73*** *– "If they did not have FAS, they would probably not have become in these evil things.* ***For example, teenage pregnancy, theft, murder...***	Repeated emphasis on the negative behaviours of FAS children or adults, such as lying, stealing, murder, gang membership, etc., constructs the FASD person as immoral. We are concerned that this may lead a mother to reject her prenatally alcohol exposed child. It is highly stigmatising of people with FASD. It may become a self-fulfilling prophecy: where people expect a child to misbehave, s/he usually complies with that expectation. Teenage pregnancy is not a crime, or inherently evil, and should not be listed with crimes.	Greatly reduce sections on the disabilities of FAS (particularly p. 23 -29). Use language like the following: "If alcohol has affected the brain of a foetus, the child may then have lifelong difficulties with thinking, impulse control, and understanding the consequences of her/his behaviour." "Babies and children who have had heavy alcohol exposure when in the womb can be more difficult to parent. Babies may be harder to soothe. Children may find it harder to be obedient, and to learn at school. Adults may find it harder to find a job, and fall into crime more easily."

Attempt to build up strengths and promote empowerment

A training approach that takes a fundamentally strengths building approach to the audience then assists the audience to take a similar approach in their interactions with alcohol consuming pregnant women. We have addressed this to some degree in the section on a harm reduction approach. In this section, we will look more at positive rather than negative messaging, and ways to shift identities to more empowering identities.

Positive messaging

While you can't avoid all negative messaging, try to include more positive messaging. Rather than repeated emphasis on not drinking, we suggest:

- Brainstorm ways that women may resist drinking e.g. by engaging in other social activities (positive things to do, rather than negative things not to do)
- Brainstorm positive ways of dealing with stress
- Tell some personal narratives of heavy drinking women who succeeded in cutting down on, or abstaining from alcohol when pregnant, and what helped them
- Talk about stress: For example: "Being pregnant can make a woman feel confused and stressed. Sometimes women drink to ease their stress. We know that drinking can harm the brain of the foetus. Can you think of ways to deal with stress that won't harm the foetus?" (e.g. exercise, playing sport, talking to a friend/counsellor)
- Be encouraging: For example: "Each time you do not drink, you are doing something helpful for your foetus"; "We know that if you don't drink when you are pregnant, you are doing something really good for your unborn child"

Shifting identities and promoting empowerment

Cloete (2012) found that the identities of alcohol consuming pregnant women revolved around drinking. Watt et al. (2014) found that such women often lack an attachment to their pregnancy, and do not want to take on an identity as a mother. These findings indicate the importance of addressing identity issues, although this is something that needs to be done sensitively.

Things that are probably not helpful in this process include:

- Repeated emphasis on how precious, vulnerable, and defenceless the unborn baby is. Many women don't wish to be pregnant, or to be mothers, and they may even have an unconscious desire to harm the foetus (this can be true even in planned pregnancies; women may be ambivalent about the foetus).

- Referring to pregnant woman and foetus as 'mother' and 'baby' may backfire. Trying to force a 'mom' identity on a woman before she is ready may be counterproductive as it can lead to resistance and guilt. It may be better to use the terms 'pregnant woman' and 'foetus' instead.

It may be helpful to engage in some empowerment exercises with the trainers and mentors. These exercises could then be adapted for use with individual pregnant women, or with groups of pregnant women.

Positive ways to try and shift identities and promote empowerment are as follows (this is based on a combination of Freire's (1970) approach to dialogical pedagogy and White's (2007) approach to narrative therapy):

1. The first step is to give the audience a chance to talk about their current realities, possibly in small groups. It is only as people have the opportunity to name and discuss their current realities that they are then able to consider ways in which they may be able to shift to new realities. Below are examples of the kinds of questions that can be used to stimulate such discussions:
    - → Around current occupations: What takes up most of your time during the day? What do you enjoy doing most? Least?
    - → Around relationships: Who are the people you are closest to/care the most about?
    - → Around past pregnancies: Discuss the circumstances surrounding falling pregnant; How did you feel when you discovered that you were pregnant? How did you feel about having that child? What were areas of stress during that pregnancy? What things did you find helpful in dealing with that stress? Who did you find most supportive during your pregnancy?
2. The next step is to help the audience to identify their strengths. People need to have a sense of their sources of power to help them to change their realities. For example, in small groups, participants can talk about the following:
    - → Something they did when they were a child that they were proud of
    - → Something that they have done recently that they are proud of
    - → Things that they think they are good at

- → Things that they enjoy doing (if it is drinking, then explore what it is that they enjoy about drinking – socialising? Numbing pain? Keeping an eye on partner? What does this say about the woman – that social relations/happiness/her partner are important to her? This is important!)
- → The specific very difficult circumstances they are managing to cope with

3. Identifying outside sources of strength is also important. Participants could be asked "Who or what do you draw strength from?" Outside sources could include God, church, ancestors, a family member, a friend or mentor, etc.
4. Also identify values. Ask:
   - → "What do you value the most?" This can be abstract, e.g. loyalty, trustworthiness, or concrete e.g. your child, your shoes, your job.
   - → "What do these values say about you as a person?"
5. Ask participants to identify people in their community that they admire.
   - → "What do you admire about this person?"
   - → "In what ways do you want to be like this person?"
6. Help participants to identify areas they would like to change in their lives
   - → If this does not (yet) include reducing/eliminating drinking, we must be accepting of this!
   - → Set reasonable goals for change
7. Brainstorm ways to take steps to achieve this change
   - → How can the participants' strengths/values assist them in making these changes?
   - → How can people help one another to achieve the changes they want?
   - → Who can the participants enlist to help them with the changes they want to make? (What outside sources of strength did they identify? How can these sources help them?)

Improve training in the skills of mentoring

There appears to be much emphasis on mentors giving information to pregnant women in the manuals. However, a mentor's ability to listen empathically and promote empowerment is a much greater mentoring skill, and we are concerned that there seems to be no training in such skills. We would therefore recommend that mentors be trained in basic listening skills and in motivational interviewing. Motivational interviewing (which is part of the harm reduction approach, and which is outlined in the literature review, above) has been shown to be the most successful way of intervening

with people who abuse substances. Basic listening skills would be part of Social Work training, and manuals on Motivational Interviewing should be easy to obtain online.

Ensure information is contextually relevant and accurate

Ensure contextual relevance

1. **The role of the father**. It is certainly good to exhort partners to take responsibility for pregnancy. However, the way the section that deals with partners is written (p. 12) assumes that (a) the partner is present, and (b) he is married to the pregnant woman (who is only referred to as wife).

Examples from manual	Challenge	Possible alternatives
P 12 *- The father must also support his wife when she is pregnant. IT IS ALSO HIS CHILD*	The pregnant woman may not be the wife of the child's father.	"When women are pregnant and new mothers, they need more support than usual. When you have created a pregnancy with a woman, that pregnancy is as much your responsibility as hers. How do you think you can support the woman?"
P. 12 *- The father must ensure with love and care that his wife…*	The father may not be present, which may make the pregnant woman feel ashamed.	"We all need assistance and support when we are pregnant and new mothers. Which people do you think could support you best?"
P. 12 - *Dad..your wife and unborn child are very precious*	Partners may not yet be ready to take on the identity of 'father', and references to being a 'father', and the preciousness of the unborn child might drive them away.	"Many men feel anxiety over the extra responsibilities of pregnancy and child rearing. What sort of anxieties do you think they may feel? What would be helpful ways for men to deal with this anxiety?

2. **Nutritional information.** The information given on pp. 13 and 71 is helpful. However, we suggest trying to make the information more applicable to impoverished women, and to word it positively rather than negatively.

Examples from manual	Challenge	Possible alternatives
P. 13 *- You don't do you and your baby any favour if you live from fast food meals.*	Negative wording Fast foods are easier to obtain	"It is really good for your baby if you can eat some protein every day, like eggs, fish, meat, milk, *maas* or beans. It is also really good if you can eat fruit and vegetables every day, like...(*give examples of locally available and commonly eaten fruit and vegetables*)". "We know it can be hard to eat healthy food sometimes. What difficulties do you face in eating healthily?" "The more you manage to eat some vegetables and protein every day, the better it is for your body and the growing foetus"
P. 13 - - Information is given on the harms that caffeine, too much salt, and food poisoning can do.	Although this may be relevant for some pregnant women, it is important to guard against information overload. The most crucial point for alcohol consuming pregnant women, who are at risk for malnutrition, is that they should eat protein, dairy products, and fresh produce.	Delete information on caffeine and food poisoning, and reduce information on salt intake. Reiterate the importance of eating protein, dairy products, and fresh produce. Discuss different types of easily available foods that fall into each of these food groups.

3. **Planning and saving for a baby.** On p. 51, there is information on the importance of planning a pregnancy, and saving enough money to cover the costs of having a child. Whilst valid, this is unlikely to seem achievable for many in impoverished settings.

Examples from manual	Challenge	Possible alternatives

P.51*. - It is very important to PLAN your pregnancy*	For people who aren't used to planning, this may seem unrealistic.	Brainstorm reasons for not using contraceptives. Brainstorm ways that might make it easier for people to use contraceptives and plan their pregnancies.
P.51 *- Did you save enough money for the new baby?*	It is almost impossible for impoverished people to save money.	"The less you drink, the more money there is for other things" "Are there things you would like to spend money on, apart from alcohol?" "How much money could you save if you drank 1 drink less a week? 2 drinks less? 5? 10?" "What else would you like to spend that money on?"

4. **Pictures.** The use of many coloured pictures makes the manuals more appealing. However, there is an over-use of 'White' people in the pictures. We would suggest using more pictures featuring 'Black' people.

<u>Ensure facts are accurate</u>

It is important that the facts presented are accurate; otherwise, the community will eventually not trust the information that is given. Apart from being unethical, inflated or inaccurate claims lead to guilt and a 'zoning out' or 'switching off' to the information.

Examples from manual	Challenge	Possible alternatives
P. 4 *- Any amount of alcohol damages the unborn baby*	Small amounts do not appear to cause harm in most women.	Talk about ideal recommendations, and mild/moderate/severe/binge drinking, and which causes the least and worst harm.

P. 16 - *Alcohol during pregnancy is the LEADING CAUSE of MENTAL DISABILITY in the world!*	It is the leading cause of *preventable* mental disability.	"Alcohol consumption during pregnancy is the leading cause of preventable mental disability in the world."
P. 32 *- Abuse or harmful use: This is when a person continues to use alcohol and drugs even though this person realises that continued use of these substances is extremely harmful.*	This is not an accurate definition of substance abuse, and is quite blaming of the individual.	"Abuse or harmful use is when a person's use of alcohol/drugs causes significant problems"
P. 41 - *module 2: Alcohol and Drugs consist mainly out of 2 categories: Stimulants and depressants.*	It is only drugs that can be divided into these two categories. Alcohol is a drug that is a depressant.	In the interests of avoiding information overload, it may be best to leave this kind of information out.
P. 42. - Diagram headed '*The influence of alcohol on health'* – indicates the harm that alcohol causes to various parts of the body	There is no indication of what levels of alcohol use cause these harms.	Discuss what levels of alcohol use (Mild? Moderate? Heavy? Chronic? Binge?) cause the negative health outcomes that are listed.
P. 33, module 2*: When...does a person* ***ABUSE*** *alcohol and drugs?*	This question does not match with the answer given, and should be rephrased.	"What is alcohol/substance abuse?"
P. 33 *- When...is a person* ***DEPENDENT*** *on alcohol and drugs?*		It would be less stigmatising to users to restate this as "What is alcohol/drug dependence?"

P. 35 *– The process of becoming dependent – The statement is made that, once dependent, a person cannot go back to previous stage!*	Takes away hope	"Once dependent, it is increasingly difficult to go back to the previous stage."
There are two self-tests for alcohol abuse on p. 37-38.	The instructions for scoring for the second test (*one YES – suspect alcohol abuse)* has been copied from the first test, and does not work for the second test. In question 10 of the second test, a 'yes' answer would not indicate abuse.	Make sure the scoring instructions are accurate.

Conclusion

We hope that this evaluation is helpful, and assists in improving the training manuals. The examples given from the texts are not exhaustive, but are illustrative of the points we are making. Likewise, the suggestions that we provide are just that – suggestions – and we are cognisant that someone who has worked 'on the ground' may be able to provide more helpful or relevant suggestions. Please do not hesitate to contact us if you have any queries.

Report 2: Formative evaluation of training sessions

This report is an evaluation of the training sessions that are provided to train trainers (as part of the Train-the-Trainer programme) and mentors (as part of the Pregnant Woman Mentoring Programme). This report is based on two sources of data: (1) recordings of a three day trainer training session, conducted in Gonubie in December 2017, and recordings of a three day mentor training session, conducted in Mdantsane in March 2018; (2) interviews with five trainee trainers and the FASfacts Social Worker in December 2017, and with five trainee mentors and the FASfacts Community Worker in March 2018. Interviews with the trainees were conducted in isiXhosa by Nqobile Msomi (an intern Counselling Psychologist and masters student). Interviews with the FASfacts social worker and community worker were conducted in English by Nicola Graham (a Counselling Psychologist and PhD student). All recordings were translated into English and transcribed by independent translator-transcribers who are fluent in English and isiXhosa.

The first evaluation report on the training manuals (hereafter referred to as Report 1) recommended some broad changes, and FASfacts, therefore, engaged a curriculum developer to re- develop the manuals in line with the recommended changes. Regrettably, the product that was developed was not suitable (in particular, its literary level was too advanced given the generally low levels of education of trainers and mentors). Unfortunately, therefore, the training sessions that this report evaluates were still using the original training manuals and materials.

This report should be read in conjunction with Report 1, as that report provided a review of published research findings which can be used to inform the re-development of the FASfacts interventions. That review will not be repeated here, but this evaluation is heavily informed by such research findings. Furthermore, many of the points we make here were also made in Report 1.

We first report on what we perceive to be the strengths of the training sessions, and then point out possible areas for change, with suggestions as to how these changes could be effected. We refer to the trainee trainers and mentors together as 'participants'. We refer to the participants who were interviewed as 'interviewees'.

Areas of strength in the training sessions

The following are areas of strength noted in the training sessions:

- Recruitment of people already working in the community: Participants included community health workers, volunteers who work with HIV/AIDS and other NGO's, and social workers.

This appears to be a good strategy, as it leverages resources that are already operating within communities. For example, one interviewee who does pregnancy testing in the clinics said that the training has now assisted her to speak to pregnant women about not drinking alcohol.

- Interactive and varied teaching methods: The training made use of ice-breakers, videos, power-point slides and group discussions, and the training facilitator posed frequent questions to ensure that participants were engaged and understanding the material presented. Interviewees appreciated this style of teaching, commenting that it was "not a lecture", and that it was "fun".
- Information presented in an accessible and helpful manner: Interviewees felt that information was presented to them in a manner that they could understand, which shows that the complexity of information provided was at the correct level for the participants. It appears that the visual teaching aids were particularly useful to them. The facilitator, likewise, appreciated the simplicity of the training materials, and felt that this enabled the information to be communicated well.
- The training facilitator was encouraging: Interviewees felt that the training facilitator was accepting and encouraging of them. One stated that she "was full of love" for the participants, and another said that she is "so sweet." The facilitator made an effort to affirm the participants' learning of the knowledge provided.
- The value of the knowledge: Interviewees were grateful for the knowledge they were given, as they found it eye-opening, and helpful for their own lives. One interviewee stated that "we also didn't know but attending the training really helped, our minds were opened...it became clear to us that this is important." The information they received also provided them with status (especially for those who felt that they were not educated) as they felt that they could now speak with more authority to others. One said that because she now has more knowledge, she has the courage to speak to pregnant women and tell them to stop drinking. Some interviewees felt that once they are dressed in FASfacts tee shirts, caps, and name tags, this will give them further legitimacy to speak to people about FAS. Some participants were already working in clinics and telling pregnant women not to drink, but they felt that the FASfacts training provided them with more in-depth knowledge about the effects of alcohol on the foetus. They felt that this knowledge would assist them to more effectively communicate the fact that pregnant women should not drink.
- Provision of a supportive space for participants: There were times when participants told personal stories, for example about difficulties in getting the father of their child to pay maintenance, struggles with an alcohol-abusing partner, or about giving birth in traumatic

circumstances. This indicates that the training sessions provide a supportive space for the participants, where they felt free to discuss some personal issues. It also indicates the importance of such spaces in people's lives. The training facilitator did well to allow some personal stories to be told (which would also have contributed to others' understandings of relational, birthing and parenting difficulties) in addition to drawing the participants back to the training materials and put a limit the time spent on such stories.

- Discussion of reasons for abusing alcohol: During the training there were some good discussions as to what leads people to abuse alcohol and become dependent. This is important, as participants need to understand why women are drinking and develop empathy for them. We suggest that this discussion should be expanded to incorporate possible ways of assisting people to stop drinking. This would be particularly important for the mentors, as they have some clients who claim that they are unable to stop drinking. This will be discussed further below.
- Provision of posters and pamphlets: Some interviewees mentioned that the provision of material that visually depicts the harm that alcohol causes is helpful as they try to alert people to the dangers of pre-natal alcohol consumption. For example, one interviewee who works in a clinic said "We have been talking to them [pregnant women] about alcohol but without anything they could see, but now they can see everything you are talking about because we give them pamphlets."

Areas for change

The following are areas recommended for change:

- Draw more off participants' inherent knowledge: Whilst the training facilitator allowed personal stories to be told, there were times when she could have capitalised on these more. For example, one participant talked about her own past drinking. It may have been helpful if this participant was asked how she overcame her drinking habits, as this would be beneficial for other participants to know. Relatedly, in the Gonubie training session, there were some participants who were Social Workers, and who worked in areas of drug rehabilitation. They challenged some of the information that was presented about drugs. It may have been worthwhile to ask them to share their insights about drug addiction and how they assist addicts. The facilitator should not feel pressure to know everything, and should feel free to say she doesn't know if there is a question to which she is unsure of the answer. Acknowledging one's

own lack of knowledge in certain areas does not mean that participants will not value the training overall.

- Avoid blaming drinking pregnant women: One of our major concerns when we wrote Report 1, evaluating the training manuals, was the way that the messages implicitly or explicitly blamed pregnant women for harming their foetuses. Blaming tactics have the effect of driving heavy drinking and dependant women away from the programme. This blame has carried through in the training, and in the messages that the participants now convey. The training facilitator and interviewees portrayed women as 'choosing' to harm their foetus through drinking, which is highly shame-inducing and does not lead to behaviour change. For example, the facilitator stated "So if your child has FAS it is because you have decided that I want my child to have FAS and be mentally disturbed." One interviewee, repeating a message from the training manuals, said that if you drink when pregnant, "you are giving your child a life sentence." One participant, during the training, said "Most pregnant women like alcohol, when we try to talk to them and reprimand them, they do not care." Another interviewee felt that young women drink because it is "fashionable". There was particular judgement by interviewees of teenagers and "young girls" for falling pregnant and drinking. All of these statements and beliefs are implicitly or explicitly blaming of pregnant women. Such reprimands and judgements generally do not lead to behaviour change, and fail to acknowledge the conditions under which women drink. Indeed, research has shown that stigma and shaming can have a negative effect on health as people are reluctant to seek help or healthcare, wishing to avoid being in situations where they will face blame and reprimands. Given that negative judgement of others is a way of boosting one's own sense of worth, such judgement and blame is very easy to slip into. We therefore urge that training materials and processes are carefully re-designed to eliminate blaming messages. Participants need to (1) understand the circumstances and power relations that foster drinking during pregnancy; (2) relate to women in empathic ways; (3) understand the potential negative healthcare consequences of stigmatising/shaming women who drink during pregnancy; and (4) learn how to work with the drinking women to find ways to reduce potential harms.
- Reduce the emphasis on the disabilities associated with FAS. There is a heavy emphasis throughout the training on the disabilities associated with FAS, how affected people get into crime, and the fact that there is "no hope" for a child with FAS. We understand that this is to try and emphasise the serious consequences of drinking when pregnant. However, such 'scare tactics' can be counterproductive in health interventions, and they can have negative

consequences. The negative effects of the FASfacts over-emphasis on this aspect include the following:

1. Participants seem to leave the training believing that most or all childhood disabilities are due to FAS. Although the training facilitator did counter this belief once, in response to a comment from a participant, this wasn't enough to change the perception that participants were left with after the training. Many interviewees displayed this belief. For example, one said "I didn't know before. I would just see a child being hyper...and I wouldn't know why...so now I know what the cause is [FAS]." Prematurity, small size, misbehaviour, and hyperactivity were all deemed to be due to entirely to FAS. There were hardly any countering messages that said such adverse outcomes could also occur without using substances during pregnancy. Some participants felt that FAS was the cause of a big head, Down's syndrome, paralysis, difficulties with walking, moodiness, social withdrawal, and all school difficulties.
2. The messages given regarding the disabilities caused by FASD is highly stigmatising of people with FASD, their mothers, and of disabled people in general, and leads to pervasive judgement of community members who may be suspected of having FASD or having a child with FASD, whether or not FASD is actually present.
3. While FASD cannot be cured, there is increasing evidence in the research literature that therapeutic and behavioural interventions with children with FASD and their caregivers can assist such children. There is never "no hope".
4. Given that participants are not in a position to diagnose FASD (and in fact that FASD is hard to diagnose even by professionals), the heavy emphasis on all the disabilities and bad behaviours of people with FASD is not necessary and takes up valuable time. A much shorter and much less stigmatising description of the problems associated with FASD would be far preferable.
5. People who are most in need of help often avoid such negative messages and drop out of programmes (France et al., 2014)

Apart from these points, it is important that the rights of disabled people to dignity, suitable educational and healthcare services, and a life free from stigma needs to be underscored. We therefore urge that the heavy emphasis on the disabilities and bad behaviour of people with FASD be reduced and re-worded (see Report 1 for suggestions). Furthermore, it is very important to emphasise that there are many disabilities that are not caused by pre-natal alcohol exposure.

- Expand the focus from pregnant women to broader contextual issues, and beyond knowledge provision: During the training, participants were often engaged in discussing the ills that

alcohol causes in households (not just in pregnant women and foetuses). This would have been a good opportunity to brainstorm community initiatives to reduce alcohol usage generally, not just in pregnant women. Additionally, there was a helpful discussion that was led by the facilitator, asking participants what may cause alcohol dependency, and cogent social issues were discussed. This discussion should then be expanded to discuss and formulate plans for how such causative factors can be addressed. When interviewees were asked what causes pregnant women to drink, they came up with important reasons, including a general culture of drinking, social exclusion for those who don't drink, partners who drink, stress, partner abuse or neglect, unemployment, unwanted pregnancies, lack of support during pregnancy, alcohol dependency, and lack of knowledge. While FASfacts is making concerted efforts to address the knowledge gap, this is only a fairly small causative factor. Furthermore, an expanded focus on the causes for drinking should be coupled with a message that trainers and mentors not judge or blame women for drinking, but accept their drinking and work with them to find ways to reduce or eliminate this behaviour.

- Avoid the assumption that pregnant women are married: One participant noticed that all the pregnant women in one of the videos were wearing wedding rings. This is also true of pictures in the training manuals. This is stigmatising for those pregnant women who are not married; it reinforces the view that their pregnancy is less legitimate than that of a married woman.
- Provide proper mentoring training: The mentoring training sessions consisted of a revision of the train-the-trainer sessions, information on the processes of labour and giving birth, and then a short exhortation by the training facilitator of the personal characteristics necessary for a mentor: being non-judgemental, calm, caring, approachable, maintaining confidentiality, and so on. However, there was absolutely no training in listening skills, in how to be empathic, motivational interviewing skills, or in the actual process of mentoring. The only techniques that the mentors were trained in was information provision. This is a major lack, in our opinion. As noted in Report 1, and as reported on by Du Plessis, Young, and Macleod (2017) in their review of interventions into alcohol misuse (written for the ECLB), motivational interviewing is a more effective technique for intervening in substance misuse than merely providing information. Interviews with trainee mentors revealed that they likewise believed that their primary task in mentoring alcohol consuming pregnant women was to "explain everything to them about what they should and should not do when pregnant" and to "advise them that doing this and that is not right." They had no knowledge or sense of any other way of intervening. Although knowledge of the harmful effects of alcohol is necessary for women to

reduce drinking during pregnancy, it is not sufficient for significant behaviour change, especially amongst heavier drinking women (Gilinsky, Swanson, & Power, 2011; Rendall-Mkosi et al., 2013). If women are not provided with the kinds of empathetic support that they need, and if the social conditions within which drinking takes places are not addressed, it is unlikely that the FASfacts programme will lead to desired reductions in drinking.

- Include harm reduction as well as abstinence messages: As discussed in Report 1, harm reduction approaches to substance abuse show more promising results than do traditional abstinence only approaches (Logan & Marlatt, 2010). As most of the harm occurs during binge drinking, reducing the occurrence of such drinking will have significant effects. An outline of harm reduction strategies, which includes motivational interviewing, is provided in Report 1. We again urge that harm reduction approaches are embraced by FASfacts, as this should help to reduce the drop-out rate of clients.
- Ensure that accurate information is conveyed at all times: There were times when incorrect or unclear information was conveyed:
    1. The message was given that all substances of abuse are as harmful as alcohol on the foetus, and that even small amounts of alcohol could be extremely dangerous. For example, the facilitator stated: "It doesn't matter what percentage of alcohol, it can still damage the child. It's the same with drugs, whether it's a cigarette or mandrax or woonga, none of them are better than the other one, the consequences are the same." Some participants then believed that smoking causes FAS. Heavy alcohol consumption is in fact far more harmful than cigarettes or recreational drugs on the foetus. Furthermore, there is a big difference between heavy alcohol consumption and light alcohol consumption in terms of how the foetus is affected (see Report 1 which discusses the lack of evidence for harm from light consumption.) One participant stated that "Even one glass is very dangerous to the child, they refer to it as lifelong brain damage." Such scare tactics can backfire, as members of the public start to see that information has been exaggerated, and then disregard all messages.
    2. Anxiety seemed to be provoked over the number of things that can damage a foetus, such as caffeine, raw meat and sushi. Again, these substances were constructed as being in the same category as alcohol in terms of the potential harms they could cause, and some participants were left with that message.

Please see Report 1 for suggestions as to how to more helpfully discuss nutrition for pregnant women.

3. The message was conveyed that alcohol negates the effects of healthy food on the foetus. For women who feel unable to stop drinking, this may make them feel that there is no point in eating healthily. In fact, eating a meal before drinking can reduce the harm that the alcohol causes. Furthermore, a well-nourished woman is less likely to bear a child with FASD than a malnourished woman (May et al., 2014).
4. There was some confusion over embryos and foetuses, with one participant stating that the baby is only formed at two months' gestation, and before that it is not a baby. This may cause confusion, as it may seem that it is okay to drink up to two months' gestation, as the baby has not yet been formed. It may be better to leave out information on the differences between embryos and foetuses in order to simplify the content.
5. The training facilitator stated that "In the whole world, most people who are mentally retarded it's because their mothers drank while they were pregnant." As noted in Report 1, FASD is the leading cause of *preventable* mental disabilities, not the leading cause of mental disabilities overall. Again, such statements are highly stigmatising of families with mental disabilities due to genetic factors, infections, birth trauma, psychological trauma, malnutrition, and so on.

- Streamline and translate training materials: Whilst the training facilitator appreciated the simplicity of the training materials, she felt that there was some repetition in the slides which was not helpful. Both interviewees and the training facilitator believed that the flip charts that would be used when giving talks in schools and clinics should be translated into isiXhosa.

Conclusion

Overall, the FASfacts training: appears to be conducted in a manner that is pitched at the right level for the participants; has a good variety of interactive teaching methods; uses helpful visual aids and videos; and is encouraging and supportive of the participants. The biggest areas that we feel need to change are to bring in a strong emphasis on not blaming drinking pregnant women, to focus more on larger societal issues, and to greatly expand mentoring training, including basic listening skills and motivational interviewing techniques. Other areas we suggest changing include: reducing the emphasis

on the disabilities associated with FAS; drawing off participants' inherent knowledge during discussions; including harm reduction as well as abstinence messages; and ensuring that the information provided is accurate.

Report 3: Formative evaluation of Pregnant Woman Mentoring Programme

This report is a formative evaluation of the Pregnant Woman Mentoring Programme. It is based on recordings of mentoring sessions with pregnant and newly parenting women (hereafter called 'clients') in the Pregnant Woman Mentoring Programme (PWMP). Mentors were trained in how to give information about the research, and to request voluntary written informed consent from the clients that they were mentoring for the sessions to be recorded. They were also provided with voice recorders and trained how to record their sessions. Recordings of 35 mentoring sessions were collected from 14 mentors. They were transcribed and translated into English by an independent transcriber/translator who is fluent in isiXhosa and English. Ten percent of the transcriptions/translations were checked by an independent PhD student who is familiar with qualitative data, and who is fluent in isiXhosa and English. She found the quality of the transcribing and translating to be high. Two of the sessions were 'staged', in other words, it was clear that someone was reading responses from a piece of paper, and one session was less than a minute in length. These sessions were deleted from the data set, leaving 32 for analysis.

We emphasised to the mentors, before they recorded their sessions, that we were not evaluating them, but rather trying to assist FASfacts to improve their programmes. However, it is natural to feel some level of constraint when one is being recorded. In many of the recordings, mentors seemed eager to prove that they were providing their clients with information. They appeared to repeat information that the client already knew well, as well as give other instructions such as the importance of bathing oneself and one's baby, the importance of keeping the home clean and tidy, and so on. They also frequently asked clients to state what they had learnt from FASfacts.

Areas of perceived strength in the PWMP

Some of the clients who were recorded expressed their appreciation for what they had learnt from their mentors and the PWMP, and most claimed that they were no longer drinking. Whilst this appreciation and the claims of sobriety are probably inflated due to social desirability responses, and whilst many women reduce or stop alcohol consumption on finding out that they are pregnant, it is still likely that some clients benefitted from the programme. [Social desirability is a well-known phenomenon where people express what they think their listeners wish to hear. Hence, it is likely that some clients may have expressed appreciation for their mentors and the workshops, and claimed to have stopped drinking, even if this is not true.]

From the recordings, it is clear that some mentors had a warm and encouraging manner with their clients. It is likely that the mere fact of having an older woman visit regularly can be a source of psychosocial support.

The FASfacts Social Worker and Community Worker provide regular workshops for mentors and also for clients. These workshops would not only provide both mentors and clients with knowledge on various health matters, but we believe that they are also likely to be a source of social support and encouragement for both mentors and clients. This is important when living in poverty and facing a life changing event like the birth of a baby. One client stated "I no longer have friends since then" (i.e. since giving up drinking). We know from past research that drinking is a primary means of socialising and meeting friends in many township settings. If FASfacts can provide a setting where women can form friendships away from taverns, and with others who don't drink, we believe this will be a major positive influence in the lives of women who are trying to move away from a drinking lifestyle.

Areas for change

Our major concern, and one that we raised in both previous reports, is that mentors are not actually trained how to mentor; they are merely provided with information. This lack of training in mentoring skills was evident in the recordings; mentors knew how to provide information, but that was all. Most of the recording time was taken up with mentors giving a great deal of unrequested information to their clients. Some of the clients appeared to listen patiently, but it was clear that some of them found it frustrating (for example, they would sigh or not respond).

Mentors would sometimes ask their clients questions, but these were closed-ended and did not encourage the women to express themselves freely (e.g. "What provisions have you made for the baby?" or "What have you learnt from FASfacts?")

Mentors displayed very few actual mentoring skills such as empathic and active listening, the use of open-ended questions, or motivational interviewing techniques. Whilst anxiety over being recorded may have masked some mentors' natural empathic abilities, it is still clear that the only way they know how to assist women is by providing information. There are some suggestions for improving the training of mentors in Report 1.

Some blaming language was also used by some mentors with their clients (for example, "you know that when we say that a child has FAS it is because of what you were doing when you were drunk"). We raised concerns in previous reports about blaming language used in training manuals. Research

has shown that stigma and shaming can have a negative effect on health as people are reluctant to seek help or healthcare, wishing to avoid being in situations where they will face blame and reprimands. We understand that it is hard not to blame women who continue to drink despite being warned of the consequences. However, it is important that mentors are trained in how to intervene with women who continue to drink (e.g. through motivational interviewing techniques, as discussed in Report 1).

Overall, it appears that the mentors take up a teaching role rather than a mentoring role. Correct information on health matters is of course important, but women who find it hard to stop drinking need more than just information.

Conclusion

Based on recordings of mentoring sessions, we can make the following observations: some clients expressed appreciation to their mentors for the PWMP. It is likely that regular visits from an older woman, and also the provision of the monthly workshops (which provide both information and also a social and supportive space), are of value to some of the clients. However, the mentors only knew how to provide information, which was sometimes presented in a rather insensitive or blaming manner. This is likely to have been frustrating or shaming for the clients, and may lead to programme drop out. All but one mentor displayed a complete lack of mentoring skills and they were unable to listen or engage with their clients in a supportive manner. Mentoring skills are of particular importance when working with women who are finding it difficult to reduce or eliminate their drinking.

Over-arching conclusions

It is clear from the baseline study of this research that interventions such as the ones provided by FASfacts are necessary in Buffalo City. While two-thirds of the women sampled reported not drinking, of those who did report drinking, many drank at harmful or hazardous levels. The end-term study revealed an increase in reported drinking in the intervention sites. Three explanations were provided: an increased willingness to disclose drinking; the normalisation of drinking during pregnancy in the sites; the collection of data by a new health service provider. Further research would be needed to ascertain which of these explanations holds. Data from the Pregnant Woman Mentoring Programme showed a decrease in drinking amongst these women. The following variables were found to be significantly associated with risky drinking: age, race; cohabitation, IPV, and other regular drinkers in the home.

The narrative project, in which women who drank during pregnancy, and the partners/family members of such women, were asked to narrate the journey of the pregnancy, revealed the difficult personal and social circumstances through which these women must navigate. Drinking was justified through reference to a lack of partner support, stress, trauma, and a drinking culture. Positive stories were also interwoven into the problem-saturated narratives.

The formative evaluation aspect of the research provided in-depth feedback to FASfacts regarding the manuals, the training sessions, and the Pregnant Women Mentoring Project. A number of positive aspects were highlights, as well as several areas for improvement.

Recommendations

On the basis of the results of the quantitative research, it is clear that interventions, such as the FASfacts one, are needed.

The variables that predict risky drinking suggest that the interventions should:

- Speak to the concerns of younger women in relation to drinking youth cultures and the stresses of pregnancy;
- Address home circumstances, in particular drinking norms within the home;
- Open up discussion of intimate partner violence, and provide support for those experiencing IPV (counselling, legal advice, referral etc.).

Although the results indicated that the Coloured participants drink at riskier levels than do African women, the small percentage of Coloured participants means that a recommendation to concentrate on Coloured women cannot be made.

Comparison of results from the baseline to the end-term surveys indicate an increase in the number of women reporting drinking, but no increase in the average amount of drinking reported. Two broad explanations for this have been provided in the discussion of this section of the report: (1) the intervention encouraged women to report drinking in order to seek assistance; and (2) the intervention led to normalisation of drinking. The first possibility is a positive outcome; the second is not. It is impossible, from the current data collected, to know which of these possibilities holds sway. More research would be needed to ascertain the likelihood of either (or possibly neither) providing an explanation for the observed differences.

Although the data collected from the Pregnant Women Mentoring Programme should be interpreted with caution, it is likely that this programme is of assistance to some women.

Findings from Project 2 make it clear that the participants' lives are marked by poverty and crime. These social conditions lead to a host of social problems, including poor access to quality education and healthcare, as well as the reality of child-headed households for some of them. Based on this research, the following recommendations are made:

- Understanding the social conditions within which pregnant women live is essential to all programmes. It should not be suggested that the problems the women are experiencing are their fault, or owing solely to their individual behaviour. Locating women's responses within context is essential. Furthermore a supportive, non-judgemental approach that not only prioritises the health and well-being of the foetus, but also the health and well-being of the pregnant woman would prove fruitful.

- Gender norms that include a lack of negotiation concerning contraception and reproductive decision-making mean that there are high levels of unintended pregnancies, which are a risk for drinking while being unaware of pregnancy. Lack of support from partners features as a major factor in the women's drinking. The most severe form, intimate partner violence, was experienced by some women participants and confessed to by other male participants. As such, interventions need to work with the gender norms underpinning many of the problems observed in this research. This means working with partners as well as women, and addressing the problematic understandings of masculinity that are pervasive in many social situations.

While working with men and with couples is important, it is equally important to provide the support services to women who have experienced intimate partner violence, or who have had their sexual partner deny paternity. Referral to, and encouragement to use, social services that assist women with, inter alia, restraining orders, and maintenance is important.

- Unintended pregnancies, early reproduction, HIV and drinking during pregnancy all attract a high level of stigma and shame. Despite the knowledge of the harms of alcohol use during pregnancy that virtually all participants had, drinking continued. Some women mentioned trying to stop, some mentioned taking "temporary breaks". Understanding and working to undo the stigma experienced by women who drink during pregnancy is essential. Stigma and shame are not pathways to better health behaviour, but rather lead to women not seeking the help they need, and engaging in surreptitious behaviour. Working with other institutions (e.g. schools, clinics, etc.) that may assist in undermining this stigma is important.

- There were minor misconceptions concerning drinking during pregnancy. However, most participants were knowledgeable about the harms of such drinking, stating that this knowledge is socially embedded in Xhosa culture. While knowledge should be included in interventions, too much emphasis on this topic may lead to disengagement by participants. Interventions should concentrate on how participants may put this knowledge to use (i.e. deal with the interpersonal and social factors sustaining the drinking). Of course, addressing misconceptions (e.g. that certain types of alcohol are beneficial to well-being during pregnancy) need to be challenged.

- Stress and trauma were major factors mentioned in maintaining drinking amongst pregnant women. Multiple stressors and traumatic events were referred to. While an intervention dealing with alcohol use during pregnancy cannot hope to address the multiple stressors and traumas experienced by these women, providing space for them and their families or partners to speak through the stressors and/or trauma is important. Indeed the response of all study participants to taking part in a non-judgmental narrative interview was overwhelmingly positive. Pearl, for example, described how she felt *a bit better* after taking part in this research: "I felt alright bantasekhaya [my people], … it's a bit better ever since [I took part in this research]. I was able to speak about my problem[s], you understand? At least I am now a person who is a bit better. … It goes like this and like this, but at least I do get some sleep. It's a bit better because I could wake up at around twelve and just think and just think and just think about things".

- Participants referred to the pervasive drinking culture and peer pressure to drink. Although pregnant women are discouraged from drinking by community members on the one hand, on the other hand, they risk losing social recognition if they do not. Interventions should address the underlying drinking culture and peer pressure to drink. While concentrating on particular behaviours (e.g. not allowing drunk friends to drive) may be useful, generic campaigns that highlight the multiple effects of drinking may have more effect.

- Participants mentioned a number of sources of support, including families, healthcare providers, social workers, the church and traditional healers. Forming partnerships with healthcare facilities, social services, schools, churches and traditional healing organisations in the area of intervention may be fruitful. It is important in these interactions to address constructive and unhelpful approaches to drinking during pregnancy (for example, it should be emphasized that stigmatisation and shaming are not likely to bring about the desired effects). Although not many participants spoke about traditional healers, Zuma et al. (2016) pointed out that eight in ten black South Africans are believed to utilize traditional health practitioners solely or along with Western medicine. They would thus be an important and influential partner in community-based interventions.

Project 3 provided input to the FASfacts management and social workers during the roll-out of the intervention. Based on the brief literature review, the following is recommended:

- Implementing a harm reduction approach, with the final aim being abstinence;
- Using motivational interviewing; training mentors in motivational interviewing;
- Acknowledging and working with the factors associated with drinking during pregnancy, including, as highlighted above, stress, negative emotions, the maintenance of social connections through drinking, lack of attachment to the foetus, and addiction to alcohol.
- Working with maternal nutrition and prenatally alcohol exposed children and carers will assist with reducing the negative outcomes of alcohol use during pregnancy.
- Messages about the risks of drinking during pregnancy should be honest and factual and delivered in a supportive manner.
- Giving practical advice for reducing intake and preferably abstaining, as well as stories from those who have succeeded, is of benefit.

Analysis of the manuals led to the following recommendations:

- Continue with the positive aspects of the manuals outlined.

- Reduce the potential for blame- and shame-induction;
- Promote empathy for women who drink while pregnant (on the basis that this drinking is driven by personal and social factors, often beyond the control of the individual woman);
- Eliminate stigmatizing language – both for the prenatally alcohol-exposed child and the woman.
- Build on women's strength and promote empowerment through positive messaging and shifting the identities of women away from that of "drinker".
- Ensure that all information is contextually relevant and accurate.

Analysis of the training sessions led to the following recommendations:

- Continue with the positive aspects identified in the report.
- Avoid blaming pregnant women who drink.
- Reduce emphasis on the disabilities associated with FAS.
- Expand the focus from the pregnant women to broader contextual issues, and beyond knowledge provision.
- Avoid the assumption that pregnant women are married.
- Provide good mentor training, including active listening skills and motivational interviewing.
- Incorporate harm reduction strategies.
- Ensure that information is accurate at all times.
- Streamline and translate all training manuals and materials.

Analysis of the Pregnant Woman Mentoring Programme resulted in the following recommendations:

- Continue with the positive elements identified in the programme.
- Provide proper training for the mentors, particularly in listening skills and motivational interviewing.
- Ongoing training of mentors so that they do not use blaming messages or provide unsolicited information about other areas of women's lives is important.

To conclude, interventions such as the ones provided by FASfacts are essential. The FASfacts interventions follow a good community-based model. There are many positive features to the interventions. However, there are also a number of ways in which the interventions can be improved. We wish the team all the best in forging ahead to make these changes and in the constant process of improvement.

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Appendix: survey instrument

ALCOHOL USE DURING PREGNANCY IN THE EASTERN CAPE

Today's date:			
Site:			
For the following items, please read questions as they are written. Record answers carefully.			
1	In what YEAR and MONTH were you born?	Year:	Month:
2	What is your AGE?		
3	How many weeks pregnant are you?	Weeks:	
4	What is the ESTIMATED DATE of DELIVERY?	Month:	Day:
5	What is your RACE:	☐ African ☐ Coloured	☐ White ☐ Indian
6	What is the highest level of EDUCATION that you have obtained?	☐ No formal schooling completed ☐ Primary School ☐ High School ☐ Matric ☐ Higher Education	
	Are you employed (including maternity leave)?	☐ Yes	☐ No

7	In total how many children have you given birth to in your lifetime?	Number:	
8	Have you ever had a pregnancy that was miscarried, was aborted or ended in a stillbirth?	☐ Yes	☐ No
9	Are you married or currently living with a partner?	☐ Yes	☐ No
10	At any time during your current pregnancy, did your husband/partner push, hit, slap, kick, choke or physically hurt you in any other way?	☐ Yes	☐ No
11	Does your partner or anybody else regularly drink at your home?	☐ Yes	☐ No

T-ACE SCREENING TOOL

Begin the by saying "Now I am going to ask you some questions about your drinking."

T1	How many drinks does it take to make you feel high?	☐ less than or equal to 2 drinks	☐ more than 2 drinks
T2	Have people annoyed you by criticizing your drinking?	☐ No	☐ Yes
T3	Have you ever felt you ought to cut down your drinking?	☐ No	☐ Yes
T4	Did you get into any trouble because of drinking?	☐ No	☐ Yes

ALCOHOL USE DISORDERS IDENTIFICATION TEST

Begin the AUDIT by saying "Now I am going to ask you some questions about your use of alcoholic beverages during this past year."

A1	How often do you have a drink containing alcohol?	☐ Never [Skip to A9-A10] (0) ☐ Monthly or less (1)

		☐ 2 to 4 times a month (2) ☐ 2 to 3 times a week (3) ☐ 4 or more times a week (4)
A2	How many drinks containing alcohol do you have on a typical day when you are drinking?	☐ 1 or 2 (0) ☐ 3 or 4 (1) ☐ 5 or 6 (2) ☐ 7, 8, or 9 (3) ☐ 10 or more (4)

AUDIT QUESTIONS CONTINUED

A3	How often do you have six or more drinks on one occasion Skip to Questions A9 and A10 if Total Score for Questions A2 and A3 = 0	☐ Never (0) ☐ Less than monthly (1) ☐ Monthly (2) ☐ Weekly (3) ☐ Daily or almost daily (4)
A4	How often during the last year have you found that you were not able to stop drinking once you had started?	☐ Never (0) ☐ Less than monthly (1)

		☐ Monthly (2) ☐ Weekly (3) ☐ Daily or almost daily (4)
A5	How often during the last year have you failed to do what was normally expected from you because of drinking?	☐ Never (0) ☐ Less than monthly (1) ☐ Monthly (2) ☐ Weekly (3) ☐ Daily or almost daily (4)
A6	How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	☐ Never (0) ☐ Less than monthly (1) ☐ Monthly (2) ☐ Weekly (3) ☐ Daily or almost daily (4)
A7	How often during the last year have you had a feeling of guilt or remorse after drinking?	☐ Never (0) ☐ Less than monthly (1) ☐ Monthly (2)

		☐ Weekly (3) ☐ Daily or almost daily (4)
A8	How often during the last year have you been unable to remember what happened the night before because you had been drinking?	☐ Never (0) ☐ Less than monthly (1) ☐ Monthly (2) ☐ Weekly (3) ☐ Daily or almost daily (4)
A9	Have you or someone else been injured as a result of your drinking?	☐ No (0) ☐ Yes, but not in the last year (2) ☐ Yes, during the last year (4)
A10	Has a relative or friend or a doctor or another health worker been concerned about your drinking or suggested you cut down?	☐ No (0) ☐ Yes, but not in the last year (2) ☐ Yes, during the last year (4)
Please check that you have completed the entire questionnaire, and thank the participant		