National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD)

Final Campaign Evaluation Report

June 2021 to August 2024

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Contents

Executive Summary

This report provides findings and reflections from the evaluation of the National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding, and Fetal Alcohol Spectrum Disorder (FASD) ("the Campaign"). For further information on evaluation methods and results, please refer to Appendix A which provides a list of reports and presentations completed during the evaluation from June 2021 to August 2024.

Campaign Background and Aims

The Campaign was led by the Foundation for Alcohol Research and Education (FARE) and was funded by the Australian Government Department of Health and Aged Care. The overarching aims were to increase Australian's awareness of the risks associated with alcohol consumption during pregnancy and breastfeeding, including FASD, to raise awareness that alcohol should not be consumed during pregnancy and that it is safest not to consume alcohol while breastfeeding, and to increase the proportion of Australian women who intend not to consume any alcohol during pregnancy and/or breastfeeding. The Campaign's activities were organised into four streams: (1) a general public awareness campaign – including the *Every Moment Matters* campaign elements, (2) support for priority groups, (3) information and training for health professionals, and (4) health promotion programs for Aboriginal and Torres Strait Islander peoples in regional and remote areas, including the *Strong Born* campaign elements. Campaign activities occurred from July 2020 to September 2024.

Evaluation Aims

The evaluation of Streams 1, 2, and 3 aimed to assess awareness of the risks of alcohol consumption during pregnancy and breastfeeding, both before and after the Campaign, as well as knowledge and understanding of the Campaign messages. It also evaluated the proportion of women drinking alcohol while trying to conceive, before pregnancy confirmation, and throughout pregnancy, along with knowledge of FASD among target groups. Additionally, the evaluation explored practice intentions of health professionals, and their provision of advice consistent with Australian Alcohol Guidelines, as well as target groups' perceptions of the appropriateness of the Campaign resources.

The Stream 4 evaluation aimed to report on the activities developed and delivered by ACCHOs (Aboriginal Community Controlled Health Organisations) who received a FASD Grant associated with the *Strong Born* Campaign, while also assessing the facilitators and barriers they encountered in the process. It sought to understand ACCHOs' perceptions of the appropriateness of Campaign resources and the sustainability of continuing these activities beyond the grant funding period. Additionally, the evaluation explored ACCHOs' experiences with the FASD Grant process and funding provider and reported on the impact of the FASD Grant on ACCHOs with varying levels of baseline experience delivering FASD prevention activities. The evaluation also aimed to explore interventions undertaken by NACCHO members not funded by the FASD Grant. Finally, the evaluation provided recommendations for future FASD prevention programs as informed by ACCHOs who participated in the evaluation.

Evaluation Method

Stream 1: General Public Awareness Campaign

National Pre-Post Campaign Surveys

Nationally representative pre- and post-campaign surveys were conducted in October 2021 and October 2023 using the Life in Australia™ panel to collect population data on Campaign awareness, knowledge, attitudes, and behavioural intentions relating to alcohol consumption in pregnancy and breastfeeding. Cross sectional surveys were undertaken to compare a range of associated perceptions and behaviours pre-campaign (N=2,991) and post-campaign (N=3,116).

Within-Campaign Tracking Surveys

Five online surveys of the Campaign target audience were conducted in January 2022 (Wave 1), July 2022 (Wave 2), October 2022 (Wave 3), May 2023 (Wave 4), and November 2023 (Wave 5) (Minimum N=800 per survey wave). The surveys aimed to monitor target audience perceptions of the Campaign after bursts of Campaign advertising. Specific outcome measures included awareness of the risks of alcohol consumption during pregnancy, knowledge of FASD, beliefs about alcohol and pregnancy, agreement with key Campaign messages, Campaign recognition, and perceived effectiveness of Campaign advertisements.

Stream 2: Support for priority groups including women at higher risk of alcohol-exposed pregnancies

Audit of alcohol and pregnancy resources for priority groups

An audit of Campaign resources developed by NOFASD (posters and brochures) was conducted using the Suitability and Comprehensibility Assessment of Materials (SAM+CAM) tool. This audit assessed the resources' content, literacy demands, numeracy, graphics, typography, and motivational aspects to determine if they were appropriate for the target audience.

Evaluation of alcohol and pregnancy resources for priority groups: an online survey of consumer perceptions

Similarly, an online survey was conducted to assess consumer perceptions of the resources developed by NOFASD. Survey participants (N=105) were allocated to view the trifold brochure that was most relevant to their situation (women who were pregnant or planning pregnancy and their partners, Alcohol and Other Drug sector worker, and Out of Home Carer/worker). After viewing the brochure, the survey assessed understanding of the resource messages, perceived effectiveness, clarity of resource messages, perceived ease of compliance with resource messages, resource recognition, likelihood of recommending the resource to others, and lastly, any further feedback about the resource.

Stream 3: Information and online training for health professionals

Two online surveys were embedded within the eLearning course pre- and post-training. A third follow-up survey, identical to the pre-training survey, was emailed to participants who had completed the pre-post training surveys. Overall, 400 health professionals completed both pre- and post-training surveys, and the follow-up survey was completed by 81 health professionals, approximately 14 months after completion of the eLearning course. The primary evaluation objective was to assess the impact of the eLearning course on health professionals' knowledge, attitudes and behavioural intentions relating to alcohol, pregnancy and breastfeeding. The post-training survey was also designed to obtain course satisfaction and feedback on the training module.

Stream 4: Health promotion programs with regional and remote Aboriginal and Torres Strait Islander peoples

To determine whether the FASD Grant supported ACCHOs to deliver the *Strong Born* Campaign within their communities, the evaluation team analysed pre- and post-grant survey responses and conducted online interviews/focus groups with ACCHOs in regional and remote communities. The pre-grant survey was completed by all 23 successful Round 1 FASD Grant applicants. Over half of the grant-funded organisations (57%, n=13) completed the post-grant satisfaction survey. The evaluation team interviewed 30% (n=7/23) of the grant-funded organisations and interviewed one ACCHO who did not receive the grant funding.

Key Findings

Stream 1: General Public Awareness Campaign

The evaluation of the *Every Moment Matters* Campaign demonstrated significant progress in raising awareness and influencing behaviours related to alcohol consumption during pregnancy and breastfeeding across the Australian population. As of October 2023, 45.5% of Australians aged 18 and over recognised the Campaign, with particularly strong awareness among women trying to conceive (65.2%). The Campaign's reach was highest through traditional media channels, particularly free-to-air TV, where 34.9% of the general population reported seeing the Campaign, followed by Broadcast Video on Demand (BVOD) at 13.6%, and social media at 12.7%. Within social media, Facebook was the most common platform where the Campaign was seen, followed by YouTube and Instagram. Geographically, Campaign recognition was notably higher in New South Wales (50.1%) and Victoria (50.0%) compared to South Australia (38.5%) and Western Australia (32.1%), with no significant differences between metropolitan and regional areas. Women were more likely to recognise the Campaign than men, and recognition increased significantly with age.

Among the Campaign's target audience, Campaign recognition saw substantial growth over time, with 67.2% recognising the Campaign by November 2023, up from 45.8% in January 2022. This increase in recognition was most pronounced between the first and third waves of the Campaign, suggesting that the Campaign was gaining momentum and effectively reaching a broader audience during these periods. However, the rate of increase slowed

between the fourth and fifth waves, possibly due to a shift in media strategy or reaching a saturation point within the target audience.

The Campaign's impact extended beyond general recognition to significantly improving knowledge and awareness of the risks associated with alcohol consumption during pregnancy and breastfeeding. Awareness of FASD among the general population increased from 51.5% pre-campaign to 54.4% post-campaign, with further improvements in understanding specific harms associated with alcohol use during pregnancy. Knowledge of the National Health and Medical Research Council (NHMRC) alcohol guidelines for pregnancy and breastfeeding improved, with significant increases in the proportion of Australians correctly identifying that there is no safe amount, type, or time to consume alcohol during pregnancy.

Behavioural intentions regarding alcohol consumption also showed positive changes following the Campaign. Among women planning a pregnancy in the next two years, there was a significant increase in the intention to abstain from alcohol when trying to conceive, rising from 34.2% pre-campaign to 54.0% post-campaign among those who had seen the Campaign. Similarly, among women who planned their recent pregnancy, the proportion who reported abstaining from alcohol while trying to conceive increased significantly from 30.7% to 58.3%. Although changes in behaviour and intention to abstain from alcohol after pregnancy confirmation and while breastfeeding were less pronounced, the overall trends suggest that the Campaign showed signs of positively influenced alcohol-free pregnancies.

The Campaign also successfully engaged partners of women who were trying to conceive, pregnant, or breastfeeding, with a significant increase in the likelihood of partners supporting alcohol-free pregnancies and abstaining from alcohol themselves during their partner's pregnancy. This suggests that the Campaign fostered a supportive environment for maternal and infant health, encouraging greater involvement from partners in promoting alcohol-free pregnancies.

Perceptions of the Campaign among the target audience were overwhelmingly positive, with respondents praising the clarity and effectiveness of the advertisements in conveying the message that alcohol should not be consumed during pregnancy. The Campaign was perceived as informative, thought-provoking, and balanced, with a clear and persuasive message that resonated well with the target audience. There was also very low agreement with the idea that the Campaign exaggerated the risks of drinking alcohol during pregnancy, indicating that the messages were seen as credible and trustworthy.

The Campaign's achievements in raising awareness, improving knowledge, and influencing behavioural intentions underscore the importance of maintaining and expanding successful strategies in future campaign activities. The emphasis on traditional media, particularly television, proved to be highly effective in reaching the target audience, and continued focus on these channels, alongside digital platforms, will be important in sustaining the Campaign's impact. Additionally, ongoing education and clear communication about the risks of alcohol consumption during pregnancy and breastfeeding are essential to further reduce uncertainty and promote healthy behaviours among Australian women and their families.

Stream 2: Support for priority groups including women at higher risk of alcohol-exposed pregnancies

As of 30 June 2024, **NOFASD had distributed over 5,800 physical resources** (trifold brochures and posters) to at least 30 organisations across Australia. **Digital supporter kits that included links to download resources were provided to over 980 organisations**, peak bodies, alcohol and other drug services, and other key stakeholders. Over the Campaign period, **resources for priority groups were downloaded over 7,000 times** from the NOFASD and *Every Moment Matters* websites.

The audit of resources for priority groups using the Suitability and Comprehensibility Assessment of Materials (SAM+CAM) found that the health literacy demands were appropriate for the target audience. As expected, trifold brochures scored higher than posters, likely due to their ability to convey more detailed information. The resources effectively used an active, personal writing style with common words, provided relevant background, and focused on conveying key messages clearly.

The findings of the online survey of consumer perceptions suggest that the brochures for priority groups, developed by NOFASD, were well-received by their respective target audiences (women at higher risk of having alcohol-exposed pregnancies, alcohol and other drug service providers, and people supporting children and young people in out-of-home care). All three resources (Client, AOD, and OOHC) effectively conveyed their intended messages, with participants indicating a high likelihood of recommending them to others. Key messages about the harms of prenatal alcohol consumption, available supports to stop drinking alcohol during pregnancy, and the importance of receiving early intervention to support individuals with

FASD were clearly communicated to readers using a compassionate tone to reduce the stigma associated with prenatal alcohol consumption. The majority of participants found the brochures to be trustworthy, easy to understand, and motivated them to support others to not consume alcohol during pregnancy. The inclusion of lived experience testimonials and the non-judgemental language were particularly appreciated.

Suggestions for improvement included adding more detailed health information and impactful messaging on the harms of prenatal alcohol consumption, and the need for broader distribution to increase awareness of FASD, thereby better equipping organisations to support individuals living with FASD. Recognition of the resources prior to the survey was low, therefore continued efforts to refine these materials and ensure their broad distribution will further support NOFASD's mission to prevent FASD and support affected individuals. Overall, the resources for priority groups were well-received by the target audiences, who perceived them as effective tools to raise awareness of FASD. As a result, these resources have the potential to better prepare workers in the AOD and OOHC sectors to assist women at risk of having alcohol-exposed pregnancies and support individuals in out-of-home care.

Stream 3: Information and online training for health professionals

Findings from the evaluation of the eLearning module *"Supporting alcohol-free pregnancy and safe breastfeeding"* demonstrated positive outcomes for health professionals who completed the training. As of 22 April 2024, 472 health professionals (36.2% of those enrolled in the course) had completed all five modules. Pre-post Module 1 survey results found that the course significantly influenced their attitudes and increased their knowledge regarding alcohol consumption during pregnancy and breastfeeding. Notably, there were substantial increases in health professionals' intention to ask about, assess alcohol consumption levels, and provide advice regarding alcohol consumption during pregnancy and breastfeeding. The immediate post-training effects were particularly strong, with substantial increases in health professionals' knowledge of the risks associated with alcohol consumption during pregnancy, knowledge of key course messages including the NHMRC alcohol guideline for breastfeeding women, and increased comfort and confidence in initiating conversations about alcohol with pregnant and breastfeeding patients**. There was also high satisfaction with course content, with very high appraisals from participants.**

Follow-up survey results highlighted many positive improvements in outcomes from pre-training levels. Confidence often declines over time; however, the sustained increase in confidence observed at follow-up suggests that the training had a lasting impact on health professionals' ability to advise on alcohol consumption during pregnancy and breastfeeding. However, some other improvements were not fully sustained at the time of follow-up. **While knowledge of key risks and course messages remained significantly higher than pre-training levels, there was a noticeable decline in the proportion of health professionals routinely asking about alcohol use and providing advice during follow-up. This underscores the potential need for ongoing education and support to maintain and reinforce the initial positive changes observed post-training.** There was a small increase in the belief that time constraints impacted health professionals' ability to assess alcohol consumption or provide advice during breastfeeding consultations from pre-training to follow-up. This finding was not evident from pre-training to immediately post-training. This suggests that while health professionals are likely trying to implement what they learned from the training, they are encountering practical challenges, particularly time constraints, when applying this knowledge in real-world settings. The findings suggest that while the training is effective in the short term, maintaining long-term behaviour change may require additional interventions, such as ongoing reinforcement of education or the integration of learned practices into daily routines so that health professionals are supported in promoting alcohol-free pregnancies and safe breastfeeding practices.

There are several limitations to consider when interpreting the findings of this evaluation, particularly when considering that participation in pre-post training surveys was compulsory, and participation in the follow-up survey was voluntary. Self-selection and attrition biases can lead to non-representative samples, as more motivated or interested individuals are more likely to complete the follow-up survey, potentially skewing results. Among all surveys, response bias may also arise with participants providing socially desirable answers. Additionally, the smaller sample size in the voluntary follow-up survey reduces the robustness of statistical analyses and generalisability of results.

Feedback on the eLearning course was largely positive, with high levels of satisfaction, perceived relevance, and willingness to recommend it to colleagues. The majority found it engaging and beneficial, particularly appreciating the clinical scenarios and videos. A very small minority of health professionals commented that the information was too basic for their background (20.4%) and a minority (15.7%) found the course difficult to follow. Valuable

suggestions for improvement were provided, such as the inclusion of more clinical scenarios, detailed information with references to evidence, addressing technical issues, improving the clarity of questions, and enhancing the course's mobile-friendliness and offline use.

Overall, the findings indicate that the eLearning course is an important component of the national awareness Campaign and the broader strategy to implement the National Strategic FASD Action Plan. To maximise the impact of the eLearning course, it is essential to continue promotion of the course to health professionals, explore innovative dissemination methods, and provide ongoing follow-up support and education. These efforts will help increase course enrolments and completion rates to help achieve and maintain improvements in health professionals' knowledge and practices over time.

Stream 4: Health promotion programs with regional and remote Aboriginal and Torres Strait Islander peoples

All ACCHOs who received the FASD Grant funding and completed the post-grant survey (N=13) developed and delivered highly localised, place-based communication materials, community engagement activities, training for multi-disciplinary ACCHO staff, or clinical, social or cultural supports for their communities to increase awareness of FASD and the harms of alcohol consumption while pregnant and/or breastfeeding. **The *Strong Born* Campaign was found to help either start the conversation or expand community knowledge and awareness about FASD and the harms of alcohol consumption** while pregnant and/or breastfeeding in the communities who received the FASD Grant funding.

Feedback from grant-funded ACCHOs on the *Strong Born* Campaign was overwhelmingly positive. Campaign resources were particularly effective in fostering genuine engagement and meaningful conversations within community. Addressing such a complex subject at the community level was complimented by the Campaign's efforts to upskill and educate staff on recognising the signs, and symptoms of FASD, referral pathways, and how to start supportive conversations with all community members to help prevent, identify and address the impacts of FASD. The evaluation highlighted the ongoing need for health promotion efforts around FASD and the importance of having qualified, trauma-informed workers to compliment the comprehensive care that ACCHOs provide daily.

The ability to localise *Strong Born* Campaign materials was said to help increase community connection and ownership of the messages about FASD. Delivering messaging in an empowering and community-led way is particularly important considering historical disempowering and dispossessive polices directed towards Aboriginal and Torres Strait Islander people. Although, this localisation of materials took longer for ACCHOs to organise, extending future funding timelines would help mitigate this issue. Additionally, enabling ACCHOs to share developed resources and translated materials could reduce expenses and benefit smaller ACCHOs with limited staff available to support this work. ACCHOs appreciated that the *Strong Born* Campaign resources included simple, empowering messages and found the booklets for community and health professionals informative, educational, and helpful in facilitating conversations about FASD.

Recommendations from grant-funded organisations to improve the impact of the Campaign included increasing support from FASD experts and improving access to FASD diagnosis and support services. It was suggested that all ACCHO staff and the wider community have access to ongoing professional development about FASD and support services, including access to NDIS for individuals and families affected by FASD. Funding specific FASD staff roles within ACCHOs could support staff and families in addressing this complex health issue more effectively. There was a call for sustained and complementary community education efforts, similar to those for smoking and drink-driving campaigns. It was also identified that expanding and improving the accessibility of drug and alcohol services is essential for addressing alcohol-related issues within the community.

Almost all ACCHOs expressed interest in further developing resources, information, community engagement activities, and staff training to raise community awareness of FASD and the harms of alcohol consumption while pregnant and/or breastfeeding. They have already integrated or plan to integrate FASD education and awareness messaging into the comprehensive health care they provide, including through health promotion activities, clinical services, maternal and antenatal care, and community education spaces. All ACCHOs flagged the need for more funding to continue raising community awareness and education of FASD and the harms of alcohol consumption during pregnancy and/or breastfeeding. Especially for ACCHOs in remote locations with less access to services and allied health support than urban and rural communities.

The ACCHO that did not receive grant funding (for reasons unknown, but who were interviewed as a comparison to assess their level of engagement with FASD activities without funding) had not delivered any health promotion activities about FASD and felt their community would have benefitted from exposure to the Campaign. This suggests that **further dissemination of the *Strong Born* Campaign and FASD Grant would benefit Aboriginal and Torres Strait Islander communities.** Further promotion of the *Strong Born* Campaign to all ACCHOs and providing non-NACCHO member organisations with access to *Strong Born* Campaign materials would help increase awareness of FASD and the harms of alcohol consumption during pregnancy and/or breastfeeding across more communities.

It was noted that the potential impact of the FASD Grant funding was limited due to the need for extensive systemic changes to address the significant health disparities faced by Aboriginal and Torres Strait Islander communities as a result of historical colonisation and dispossession. Broader systemic changes are crucial to begin effectively addressing the underlying issues related to why some community members may consume alcohol while pregnant and/or breastfeeding. Despite these challenges, the Campaign successfully raised awareness about FASD and the harms of alcohol consumption during pregnancy and/or breastfeeding and reached some communities for the first time.

Although ACCHOs are a good starting point for community education and awareness due to their strong rapport and high community engagement through the services they offer, the communities they serve need structural support to complement their efforts. All ACCHOs acknowledged that addressing FASD requires more than just educating pregnant women. **To effectively tackle FASD and the harms of alcohol consumption during pregnancy and/or breastfeeding, it is crucial to involve a broad range of community services.** As awareness of FASD increases, the community needs to be equipped to support individuals, families and communities affected by FASD.

Relying solely on community education from ACCHOs to address FASD is insufficient, as they are already managing a wide range of health issues and face staffing and funding constraints. A collaborative, whole-of-community approach is needed. This approach should include local government, community organisations, social services, educational institutions, and other stakeholders. Such a comprehensive effort will support pregnant women and help Aboriginal and Torres Strait Islander communities achieve strong born babies, strong families, and create meaningful, lasting changes.

Campaign Background and Aims

Fetal Alcohol Spectrum Disorder (FASD) is a result of alcohol exposure during pregnancy and is a leading cause of non-genetic developmental disability in Australia (1). People who are born with FASD can experience impairments in a range of functions such as poor memory and cognitive skills as well as have lifelong problems with learning, growth, behaviour and everyday living (2). Alcohol exposure in pregnancy also contributes to miscarriage, stillbirth, low birth weight, small for gestational age and pre-term birth (3-5). Estimates show that FASD affects five per cent of the Australian population, with a potential range between two to nine per cent of babies born each year (6). FASD can occur in any sector of Australian society where alcohol is consumed during pregnancy.

The National Health and Medical Research Council's Alcohol Guidelines, released in 2020 advise that '*To reduce the risk of harm to their unborn child, women who are pregnant or planning a pregnancy should not drink alcohol. For women who are breastfeeding, not drinking alcohol is safest for their baby.*' (7).

Australian data reveals that 29% of Australian women consume alcohol weekly and 4% consume alcohol daily (8). Moreover, over a third of women consumed alcohol while pregnant in 2019 (8), indicating that many women are not aware of the harms associated with prenatal alcohol exposure. Alcohol consumption during pregnancy is influenced by several factors, such as women's knowledge of the associated risks. Therefore, continued efforts are required to prevent FASD and other adverse harms from alcohol consumption during pregnancy.

National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and FASD

The *National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD)* is part of the Australian Government's commitment to address FASD and implement the National Strategic FASD Action Plan. The Foundation for Alcohol Research and Education (FARE) received funding from the Australian Government Department of Health and Aged Care to develop and deliver a national awareness Campaign from July 2020 to September 2024.

The national Campaign led by FARE aimed to:

- Increase Australians' awareness of the risks associated with alcohol consumption during pregnancy and/or while breastfeeding, including FASD
- Increase the proportion of Australians who are aware that alcohol should not be consumed during pregnancy and that is it safest not to consume alcohol when breastfeeding
- Increase the proportion of Australian women who intend to not consume any alcohol during pregnancy and/or when breastfeeding

The Campaign had four streams of activity:

Stream 1: General public awareness campaign

Stream 2: Support for priority groups including women at higher risk of alcohol-exposed pregnancies

Stream 3: Information and online training for health professionals

Stream 4: Health promotion programs with regional and remote Aboriginal and Torres Strait Islander peoples

Summary of Campaign Activities by Stream

Stream 1: General Public Awareness Campaign

The first instalment of the Campaign under Stream 1: general public awareness launched on 30 November 2021. Titled *'Every Moment Matters'*, it highlights that every moment matters in pregnancy when it comes to drinking alcohol, starting from the moment a person starts trying to get pregnant. *Every Moment Matters* aims to empower Australians by providing clear information about the risks of drinking alcohol during pregnancy and breastfeeding. Campaign materials were also designed to demonstrate support for alcohol-free pregnancies and improve public awareness of FASD. The awareness Campaign featured nationally[1] on television, radio, digital and out-of-home channels.

[1] Some Campaign activities excluded Western Australia due to the presence of a state based campaign.

Stream 2: Support for priority groups including women at higher risk of alcohol-exposed pregnancies

As part of the National Awareness Campaign on Alcohol, Pregnancy and Breastfeeding, the National Organisation for Fetal Alcohol Spectrum Disorders (NOFASD) were commissioned to develop and distribute a series of resources about prenatal alcohol exposure in an accessible and targeted form for priority groups (women at higher risk of having alcohol-exposed pregnancies, alcohol and other drug service providers, and people supporting children and young people in out-of-home care). NOFASD led a consultation process with a range of key stakeholders from the Alcohol and Other Drug sector; women with lived experience of alcohol-exposed pregnancies; and mothers of children with FASD to develop resources.

Resource Target Audience and Purpose

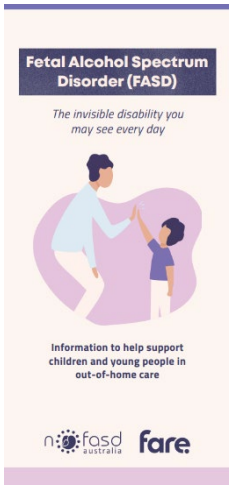
Target Audience 1 (client resource): Women at higher risk of having alcohol-exposed pregnancies

The first target audience was women who are at greater risk of having alcohol-exposed pregnancies. A trifold brochure and poster were developed to clearly and compassionately communicate the risks of continuing to drink alcohol while pregnant and suggest avenues where a woman who is alcohol dependent can find support. These resources also contain alcohol advice from Australian medical research groups and quotes from mothers of children with FASD who experienced alcohol dependence during pregnancy.

Target Audience 2: Alcohol and Other Drug (AOD) sector workers

The second target audience was people working in the Alcohol and Other Drug (AOD) sector. The trifold brochure and poster provide key messages AOD workers can share with their clientele, including alcohol advice from Australian medical research groups. They also provide insights into why a woman who is alcohol dependent may hesitate to articulate this and ask for help to stop drinking. The resource was designed to prepare AOD workers to assist women who need their support.

Target Audience 3: Practitioners, team leaders and caregivers in the out of home care (OOHC) sector



The trifold brochure and poster designed for people within the out of home care (OOHC) sector provides key messages to raise awareness of FASD. In acknowledgement that people involved in OOHC play a central role in recognising and supporting the needs of children and young people with FASD. The resource covered the fact that when FASD goes unrecognised, children and young people can be left without the right support, misunderstood, or even blamed for behaviours caused by their disability. The resources describe FASD and its associated symptoms, as well as advice on seeking a FASD diagnosis.

Resource Launch

On the 17th of August 2022, NOFASD launched the resources targeting women at higher risk of having alcohol-exposed pregnancies (Audience 1) and AOD sector workers (Audience 2). The third set of resources targeting practitioners, team leaders and caregivers in the out of home care sector (Audience 3) were launched on the 27th of September 2022.

Stream 3: Information and online training for health professionals

As part of stream 3 for the National Awareness Campaign on Alcohol, Pregnancy and Breastfeeding, an eLearning course for health professionals, titled *Supporting alcohol-free pregnancy and safe breastfeeding*, was developed. The eLearning course content is based on the National Health and Medical Research Council's Australian guidelines to reduce health risks from drinking alcohol and was developed in collaboration with health professionals and experts in the field. The course launched on Medcast's online learning platform on the 30 September 2022 and "enables health professionals to provide accurate information and advice on alcohol free pregnancy and safe breastfeeding." It was designed primarily for general practitioners, obstetricians, midwives and nurses; however, it is suitable for all Health Professionals relevant to a person's pregnancy journey.

The course is case-based and includes five videos and self-paced online learning modules (approximately 1.5 hours duration). The modules were titled:

1. Pregnancy and alcohol
2. Summary of the evidence
3. Fetal Alcohol Spectrum Disorder
4. Brief intervention and motivational interviewing
5. Alcohol and breastfeeding

The course was designed to equip participants with skills and knowledge to:

- Recognise the latest evidence about the risks of alcohol consumption during pregnancy and when planning pregnancy, including at low consumption levels.
- Describe the impacts of alcohol at all phases of pregnancy, including the early weeks.
- Implement the validated AUDIT-C tool for assessing alcohol consumption during pregnancy

- Implement positive reinforcement, brief intervention or referral according to the assessed level of risk
- Discuss advice about alcohol during pregnancy or planning pregnancy that is consistent with the Alcohol Guidelines.

The course is free and accredited by the Royal Australian College of General Practitioners (RACGP), the Australian College of Midwives (ACM), the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) and the Australian College of Rural and Remote Medicine (ACRRM).

Stream 4: Health promotion programs with regional and remote Aboriginal and Torres Strait Islander peoples

As part of the *National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and FASD*, FARE partnered with the National Aboriginal Community Controlled Health Organisation (NACCHO) to deliver culturally appropriate campaign materials to Aboriginal and Torres Strait Islander people in regional and remote communities.

Strong Born Campaign

Strong Born was a communications campaign designed to raise awareness of FASD and the harms of alcohol consumption while pregnant and/or breastfeeding, among Aboriginal and Torres Strait Islander peoples in rural and remote communities (MM4-MM7[2]) (9). The *Strong Born* Campaign was also about supporting people with FASD, their families and carers, by understanding what FASD is, and the services that may be available for individuals and families. NACCHO's National FASD Working Group, which included representatives from rural and remote Aboriginal Community Controlled Health Organisations (ACCHOs) with clinical and cultural expertise, researchers and subject matter experts, was instrumental in the development of the Campaign.

The *Strong Born* Campaign was launched online on the 22nd of February 2023. Campaign materials included two FASD information booklets, one for community members and another

[2] Modified Monash Model. MM4: Medium rural towns, MM5: Small rural towns, MM6: remote communities, MM7: very remote communities

for multi-disciplinary ACCHO staff, as well as posters, social media tiles and polo shirts. The *Strong Born* Campaign materials were approved by the Australian Government Department of Health and Aged Care and FARE. Examples of Campaign materials are shown in Figure 1.

Figure 1. *Strong Born* Campaign: Community and health professional information booklets

FASD Communications and Engagement Grant Funding (FASD Grant)

The *Strong Born* Campaign was supported by the FASD Communications and Engagement Grant (FASD Grant) open to NACCHO members located in MM4-MM7 (9). Eligible ACCHOs could deliver a place-based response in collaboration with other community-controlled organisations and communities. The grants were designed to enhance and extend the *Strong Born* Campaign by supporting ACCHOs to develop and deliver additional highly localised, place-based communications materials as well as engagement activities. Eligible ACCHOs could apply for between $5,000 and $60,000 in FASD Grant funding to deliver communications and engagement activities that would be relevant in their community or deliver a regional response in collaboration with other organisations and communities. Eligible ACCHOs were encouraged to apply for FASD Grant funding regardless of whether they deliver FASD-specific programs.

Eligible grant activities that ACCHOs could develop and/or deliver:

- Create and disseminate local communications materials to raise awareness of FASD and the harms of alcohol consumption while pregnant; and support the success of the Stream 4 materials and *Strong Born* Campaign.
- Create and disseminate materials with translations of *Strong Born* Campaign materials or Campaign key messages into Aboriginal and Torres Strait Islander languages.
- Disseminate and promote the *Strong Born* Campaign materials through additional printing, social media campaign spending or other means.
- Deliver engagement activities to raise awareness of FASD and the harms of alcohol consumption while pregnant in the community and promote and utilise the *Strong Born* Campaign.
- Deliver engagement activities to increase the capability of multi-disciplinary ACCHO staff, community members and families affected by FASD to support people with FASD.

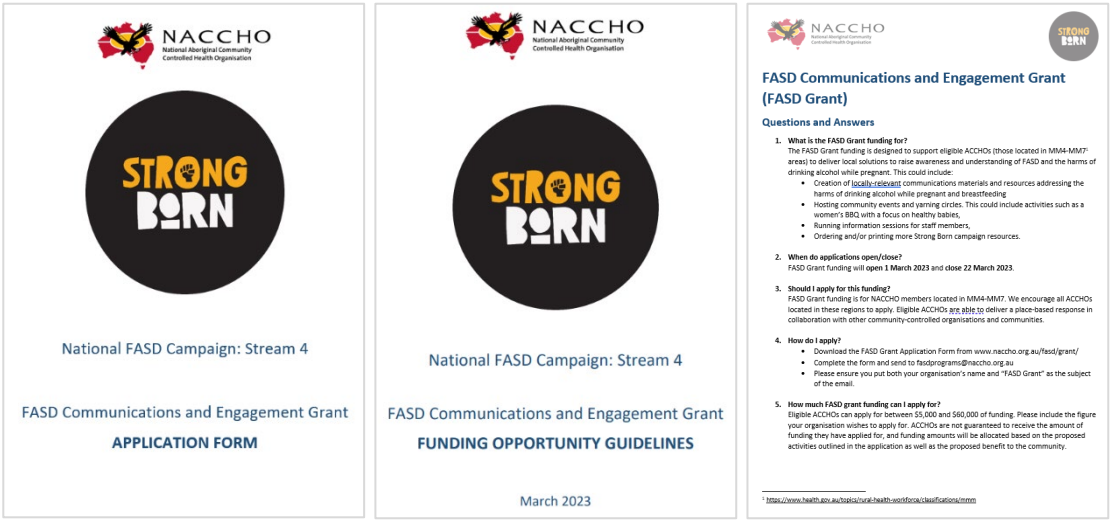


Figure 2. FASD grant application, guidelines, and Q&A documents on NACCHO's website

Sourced: 26 June 2023. www.naccho.org.au/fasd/grant

Overarching aims of the *Strong Born* Campaign and FASD Grant (defined by NACCHO):

- Raise awareness of the risks and impacts of alcohol consumption in pregnancy and/or when breastfeeding among Aboriginal and Torres Strait Islander women and communities in rural and remote Australia.
- Engage and co-design with stakeholders culturally appropriate resources that resonate with rural and remote ACCHO Health Professionals workforce and Aboriginal and Torres Strait Islander women and their families.
- Produce and disseminate resources and health promotion resources on alcohol, pregnancy, breastfeeding and FASD to rural and remote Aboriginal and Torres Strait Islander people through ACCHOs that are tailored to local community needs and understanding.
- Increase the proportion of Aboriginal and Torres Strait Islander women in rural and remote areas of Australia who intend to not consume any alcohol during pregnancy and/or when breastfeeding.

Evaluation Overview

Evaluations Aims

The evaluation of Streams 1, 2 and 3 aimed to assess:

1. Awareness of the risks of alcohol consumption during pregnancy and breastfeeding, pre- and post-campaign (Streams 1, 2 and 3)
2. Awareness, knowledge and understanding of the Campaign messages (Stream 1, 2 and 3)
3. The proportion of women drinking when trying to conceive, prior to the pregnancy being confirmed and throughout the pregnancy (Streams 1)
4. Knowledge, among identified target groups, of FASD and the impact of FASD on children (Streams 1, 2 and 3)
5. Behavioural intentions by population subgroups (Streams 1 and 2)
6. Practice intentions by health professionals and the prevision of advice by health professionals that is consistent with NHMRC Alcohol Guidelines (Stream 3)
7. Target groups' perceptions of the appropriateness of the Campaign resources (Stream 1, 2 and 3)

The Stream 4 evaluation aimed to:

1. Report on activities developed and/or delivered by ACCHOs who received the FASD Communications and Engagement Grant
2. Assess perceptions of the appropriateness of the Campaign resources
3. Assess facilitators and barriers to the development and/or delivery of activities
4. Assess ACCHOs perceptions of the sustainability of delivering activities beyond the FASD grant funding
5. Explore ACCHOs experience with the FASD Grant process and funding provider
6. Analyse the impact of the FASD Grant on ACCHOs who have different baseline experience, knowledge and motivation to engage in FASD prevention activities
7. Explore interventions and/or activities undertaken by NACCHO member organisations not funded by the FASD Grant, in comparison to funded NACCHO member organisations

Evaluation Method

A variety of methods were used to evaluate the impact of Campaign activities across all four streams, including national pre- and post-campaign surveys of the Australian general population, five within-campaign tracking surveys with the Campaign target audience to monitor performance, audit of resources developed for priority groups to evaluate if the health literacy demands were appropriate, survey of priority groups to assess consumer perceptions of resources, pre- and post-training surveys with health professionals, pre- and post-grant surveys with grant-funded Aboriginal Community Controlled Health Organisations (ACCHOs), and interviews with ACCHOs. Google analytics, social media engagement, and other media buying metrics were also monitored to assess Campaign reach and distribution (methods are results are provided in Progress Reports, see Appendix A for the list of evaluation reports). Ethics approval for all Stream 1 to 3 evaluation activities was obtained from The University of Adelaide Human Research Ethics Committee. Ethics approval for Stream 4 evaluation activities was obtained from the Australian Institute of Aboriginal and Torres Strait Islander Studies.

Stream 1 Evaluation Method: General Public Awareness Campaign

National Pre-Post Campaign Surveys

In October 2021 (pre-campaign) and October 2023 (post-campaign) the Life in Australia™ panel was used to survey a nationally representative sample of the Australian population. Life in Australia™ is a national probability-based online panel run by the Social Research Centre (a subsidiary of the Australian National University). Existing members of the panel (Australians aged 18 years and older) have been randomly recruited via their landline or mobile telephone (rather than being self-selected volunteers). This approach ensures that the data are representative of the Australian population and sampling errors and confidence intervals can be calculated. Life in Australia™ includes people both with and without internet access. Those without internet access or those who are not comfortable completing surveys over the internet (‘online’) are able to complete surveys by telephone (‘offline’). The surveys aimed to collect population data on Campaign awareness, knowledge, attitudes, and behavioural intentions relating to alcohol consumption in pregnancy and breastfeeding.

Statistical analyses

Cross sectional surveys were undertaken to compare a range of associated perceptions and behaviours pre-campaign (N=2,991) and post-campaign (N=3,116). All analyses were conducted using SPSS version 24. The chi-square (χ^2) test of significance was used to compare pre- and post-campaign survey results, with a conventional p value of <.05 determining statistical significance. Each percentage is reported with a 95% confidence interval which indicates the range of values that are likely to be true (with 95% certainty) at the population level. Results from the Life in Australia™ panel are weighted to external benchmarks for key demographic parameters (gender, age, and geographic area). Therefore, results are representative of Australians aged 18 years or older.

Within-Campaign Tracking Surveys

Five online surveys of the Campaign target audience were conducted in January 2022 (Wave 1), July 2022 (Wave 2), October 2022 (Wave 3), May 2023 (Wave 4), and November 2023 (Wave 5). A quota of 800 respondents was set for each wave of data collection. Participants were recruited from an opt-in online panel. The sample was stratified by state to reflect the distribution of the Australian population. The surveys aimed to monitor target audience perceptions of the Campaign after bursts of Campaign advertising. Specific outcome measures included awareness of the risks of alcohol consumption during pregnancy, knowledge of FASD, beliefs about alcohol and pregnancy, agreement with key Campaign messages, Campaign recognition, and perceived effectiveness of Campaign advertisements.

Campaign Target Audience (Survey Sample)

To be eligible to participate in the survey, respondents were required to be Australian residents who consumed alcohol in the previous 12 months or usually consume alcohol. Specific subgroups were eligible within this broader group including: individuals who were currently or recently planning a pregnancy or trying to conceive (including partners); individuals who were pregnant or breastfeeding (including partners); women aged 18-44 years who weren't planning a pregnancy, trying to conceive, pregnant or breastfeeding at time of survey.

Participants who reported their gender as female were asked to select from a list of statements what best described their current situation and their situation in the last 12 months relating to pregnancy (current situation and situation in last 12 months were assessed by two separate

questions). These participants were subsequently allocated into the following subgroups, as per the below hierarchy, and there was equal representation for each subgroup:

1. **Pregnant/breastfeeding:** were currently, or were in the past 12 months, pregnant and/or breastfeeding.
2. **Trying/planning:** were currently, or were in the past 12 months:
    - Actively trying to conceive; and/or
    - Planning to conceive in the next 2 years, but not currently trying to conceive.
3. **Women aged 18-44 years:** women aged 18-44 years who were not currently, or in the past 12 months were not:
    - Pregnant, breastfeeding, actively trying to conceive, or planning a pregnancy.
    - These women may become pregnant (potentially unplanned) in the future.

Any participants who did not fall into one of the above subgroups were asked to select from a list of statements what best described the pregnancy status of their spouse or partner to identify partners of those who are currently planning a pregnancy, actively trying to conceive, pregnant, or breastfeeding.

4. **Partner of women who were pregnant/breastfeeding/trying/planning:** has a female spouse/partner who was currently, or in the last 12 months was:
    - Pregnant, breastfeeding, trying to conceive, or planning a pregnancy.

Individuals who did not meet the criteria of subgroups 1 to 4 were not eligible to participate in the survey.

Online survey procedure

Respondents were first asked general questions about their awareness of FARE, awareness of the current National Health and Medical Research Council (NHMRC) Alcohol Guidelines for Pregnancy and Breastfeeding, current behaviour/intentions about alcohol consumption during pregnancy, awareness of the risks of alcohol consumption during pregnancy, knowledge of Fetal Alcohol Spectrum Disorder (FASD), beliefs about alcohol consumption and pregnancy, agreement with key Campaign messages, and recall of any ads or information about alcohol use during pregnancy or breastfeeding, or about FASD. Next, respondents were required to view each advertisement before answering questions specific to that advertisement. Each survey included the advertisements broadcast in the weeks preceding the survey, with ads shown in a random order. All respondents viewed all ads. Finally, demographic details were collected.

Statistical Analyses

All analyses were conducted using SPSS version 24. Statistical significance was defined as $p<.05$. Statistical differences in scores by respondent characteristics were tested via ANOVA with Bonferroni-corrected post hoc tests and independent sample t-tests. Statistical differences in proportions were tested via chi-square tests.

Stream 2 Evaluation Method: Support for priority groups including women at higher risk of alcohol-exposed pregnancies

Audit of alcohol and pregnancy resources for priority groups

As part of the process evaluation to determine whether the Campaign activities have been implemented as intended, an audit of Campaign resources was conducted. The resources developed by NOFASD (three posters/trifold brochures) were assessed using the Suitability and Comprehensibility Assessment of Materials (SAM + CAM) (10). The SAM+CAM is a validated and reliable tool used to evaluate if the health literacy demands of text-based resources are appropriate for the target audience. Health literacy refers to an individual's ability to comprehend and use health information. If health education materials demand a high level of health literacy (e.g., includes complex words, calculations, etc.), the health information may not be understood by the reader. Specifically, the SAM + CAM was used to assess the:

1. Content (explicitly stated purpose of materials, desired behaviour of participants)
2. Literacy demand (style of writing, vocabulary, length, information context)
3. Numeracy (presentation of numbers, rates, calculations)
4. Graphics (use of illustrations, tables, charts)
5. Resource typography (layout/organisation of text, appropriate font, headings/subheadings)
6. Resource motivation (attentive word choice, inclusive phrasing, tone of message, persuasive techniques)

For further information on the SAM+CAM assessment tool, see the report:

Caruso, J., Ellis, R., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): *Progress Report 4 (January 2023 – May 2023).* South Australian Health and Medical Research Institute. Adelaide, Australia: June 2023.

Evaluation of alcohol and pregnancy resources for priority groups: an online survey of consumer perceptions

To assess consumer perceptions of the resources developed by NOFASD, an online survey was embedded into the *Every Moment Matters* and NOFASD websites (see Figure 3 for survey invitation). Survey participation was incentivised by going in the draw to win one of four $75 e-gift cards. The survey was open from September 2022 to June 2024.

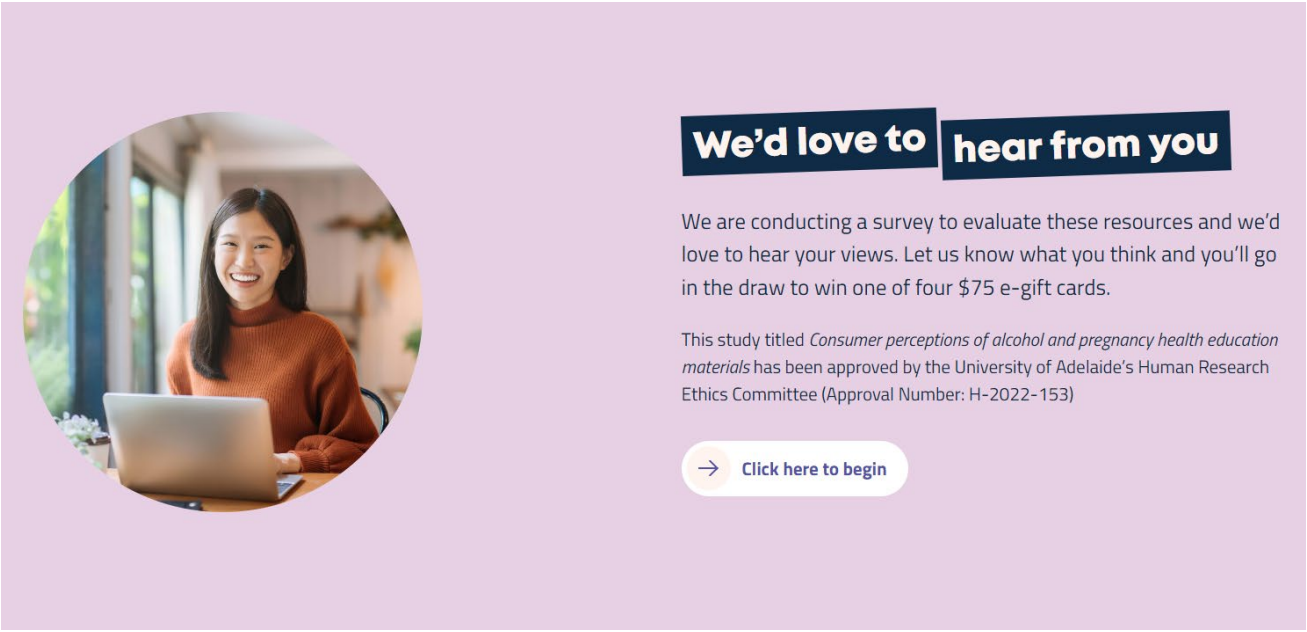


Figure 3. Invitation to complete Stream 2 consumer perceptions survey on the *Every Moment Matters* website.

Survey Participants

To be eligible to participate in the survey, respondents were required to be Australian residents aged 18 or over. Specific subgroups were eligible within this broader group including: individuals who were planning/trying to become pregnant, or currently pregnant/breastfeeding (including partners, spouses, friends, or family of those groups); individuals who worked as alcohol and other drug service workers, health professionals, or researchers; individuals who worked as out-of-home carers, parents/carers of children with FASD or young people in out-of-home care, or individuals with FASD.

Participants were allocated to view the trifold brochure that was most relevant to their situation. The subgroups were defined by the resource target audience:

1. **Audience 1: Women at higher risk of having alcohol-exposed pregnancies**
   Survey respondents were individuals who were planning/trying to become pregnant, or currently pregnant/breastfeeding (including partners, spouses, friends, or family of those groups)
2. **Audience 2: Alcohol and Other Drug (AOD) sector workers**
   Survey respondents were individuals who work as alcohol and other drug service workers, health professionals, or researchers

3. **Audience 3: Practitioners, team leaders and caregivers in the out of home care sector**

   Survey respondents were individuals who work as out-of-home carers, were parents/carers of children with FASD or young people in out-of-home care, or individuals with FASD

Individuals who were classified as 'other' were assigned to view the client resource (audience 1).

Online survey procedure

Individuals were invited to participate via a banner on both the *Every Moment Matters* website and the NOFASD website. An e-newsletter inviting individuals to participate was also sent to those subscribed to the FARE and NOFASD mailing. After providing consent to participate in the survey, participants were first asked demographic characteristic questions, to determine both their eligibility to participate in the survey and which resource would be most appropriate to view. Participants were asked general questions about their awareness of FASD and its related symptoms, before being shown the resource most appropriate to their situation. The resources shown were trifold brochures. They were displayed as six individual pages to improve readability for digital viewing. After viewing the brochure, participants were asked about their understanding of the resource themes, perceived effectiveness of the resource, trustworthiness of the resource, emotional response to the resource, clarity of the resource messages, perceived ease of compliance with the resource message, whether they recognised the resource prior to the survey, how likely they were to recommend the resource to others, and lastly, any further comments they had about the resource.

Stream 3 Evaluation Method: Information and online training for health professionals

Evaluation of an eLearning course for health professionals designed to support alcohol-free pregnancies and safe breastfeeding

Two online surveys were embedded within the eLearning course pre- and post-Module 1. Administering these surveys within the eLearning module aimed to reduce administrative burden and improve survey response rates. Completion of the pre-post training surveys was compulsory to receive confirmation of course completion and accreditation points. A third follow-up survey, identical to the pre-training survey, was emailed to participants who had completed the pre-post training surveys.

The primary evaluation objective was to assess the impact of the eLearning course on health professionals' knowledge, attitudes and behavioural intentions relating to alcohol, pregnancy and breastfeeding. Results of health professionals who completed both the pre-training and post-training surveys after completing Module 1 (which was determined between FARE and Medcast to be the key module for accreditation purposes) were compared, and results of health professionals who completed all three surveys (pre-training, post-training, and follow-up) were compared. The post-training survey was also designed to obtain course satisfaction and feedback on the training module.

Online survey procedure

Those who wished to participate in the eLearning course were first required to sign up to Medcast, a provider of healthcare education. This sign-up process allowed for the collection of both participant demographic details (e.g., age, sex, profession, qualification) and an eligibility check (e.g., participant is a health professional).

Participants who self-enrolled in the eLearning course were presented with the pre-training survey, once consent had been obtained via the survey preamble. Prior to viewing the course materials, respondents were asked about their current practice regarding providing advice to pregnant/breastfeeding patients, their experiences and beliefs regarding asking pregnant/breastfeeding patients about their alcohol consumption, their awareness of the risks associated with alcohol consumption during pregnancy, their level of agreement with the eLearning course messages, and their recognition of existing Campaign resources developed by FARE.

Participants were then given access to the alcohol and pregnancy eLearning course. Upon completion of Module 1 (Pregnancy and alcohol), participants were directed to the post-training survey, which asked them to provide feedback on the course, their practice intentions regarding the provision of advice to pregnant/breastfeeding patients, their beliefs about asking pregnant/breastfeeding patients about their alcohol consumption, their awareness of the risks associated with alcohol consumption during pregnancy, their level of agreement with the eLearning course messages, and lastly, any further feedback they have regarding the training course.

Participants who had completed the pre-post training surveys (N=400) were invited via email (with two reminders) to participate in a follow-up survey approximately 6-months post-completion of Module 1. The follow-up survey was similar to the pre-training and post-training surveys in that it assessed current practice with regard to providing advice to pregnant/breastfeeding patients, their experiences/beliefs regarding asking pregnant/breastfeeding patients about their alcohol consumption, their awareness of the risks associated with alcohol consumption during pregnancy, their level of agreement with the eLearning course messages, and lastly, their recognition of existing Campaign resources developed by FARE.

Data collection

Pre-post training data collection began in conjunction with the launch of the eLearning course on 30 September 2022 and closed on 22 April 2024. N=400 health professionals completed both the pre- and post-training surveys. Due to the low response rate for the follow-up survey (<4% by May 2024[3]), a financial incentive ($50 e-gift card) was introduced to encourage survey completion. In June 2024, all participants who had completed the pre- and post-training surveys (N=400) were emailed an invitation to complete the follow-up survey. Two reminder emails were sent, and the survey closed on 22 July 2024. A total of 81 valid follow-up survey completions were recorded. The median completion date for the follow-up survey was 27 June 2024 (range: 27 September 2023 to 18 July 2024), approximately 21 months from course launch. Among those who completed all three surveys (n=81), the median completion date for the post-training survey was 4 May 2023 (range: 6 October 2022 to 12 April 2024). Therefore,

[3] Participants who had already completed the follow-up survey (n=13) also received the incentive.

the approximate time from the completion of Module 1 (and the post-training survey) to completion of the follow-up survey was 14 months.

Statistical analysis

All analyses were conducted using SPSS version 24. Response categories ‘strongly agree’ and ‘agree’ were combined for analysis. Statistical significance was defined as $p<.05$. The prevalence of responses in the pre-training, post-training and follow-up surveys were compared using generalised estimating equations models. Generalised estimating equations is a method for analysing correlated data, such as repeated measurements (11). Odds ratios (OR) and their corresponding 95% confidence intervals (CIs) are provided to indicate the strength of the association between completing the eLearning course and key outcomes (i.e. attitudes, knowledge and behavioural intentions).

Stream 4 Evaluation Method: Health promotion programs with regional and remote Aboriginal and Torres Strait Islander peoples

Evaluation of Stream 4, focused on Aboriginal and Torres Strait Islander peoples in rural and remote localities (MM4-MM7[4]) (9), was a process and impact evaluation to determine whether the Campaign activities had been implemented as intended and to measure its immediate performance. Evaluation of Stream 4 was led by Prof Scott Wilson, CEO of the Aboriginal Drug and Alcohol Council (SA) Aboriginal Corporation (ADAC).

The evaluation used mixed methods including a pre-grant survey, post-grant satisfaction survey, and qualitative methods to gather more in-depth explanatory data through online interviews with key ACCHOs in rural and remote communities. The evaluation team received the support of NACCHO to conduct the evaluation and worked closely and collaboratively with NACCHO to ensure all stages of the evaluation were culturally appropriate for their members and communities. The evaluation team will engage with NACCHO to disseminate findings to Aboriginal and Torres Strait Islander stakeholders. The evaluation was also developed using core values and principles from the Indigenous Advancement Strategy Evaluation Framework and the Place-based Evaluation Framework (12, 13). Ethics approval was obtained from the Australian Institute of Aboriginal and Torres Strait Islander Studies, as requested by FARE.

Pre-Post Grant Surveys

Pre- and post-grant surveys were embedded in the grant application and grant satisfaction forms. Questions were based upon those routinely collected by NACCHO. The pre-grant survey assessed existing activities delivered by ACCHOs prior to receiving the grant and the post-grant satisfaction survey identified activities delivered by ACCHOs using the grant, specifically:

1. Creation and/or dissemination of communications materials specifically related to FASD and the harms of alcohol consumption while pregnant and/or breastfeeding
2. Engagement or community activities specifically related to FASD and the harms of alcohol consumption while pregnant and/or breastfeeding

[4] Modified Monash Model. MM4: Medium rural towns, MM5: Small rural towns, MM6: remote communities, MM7: very remote communities

3. Supports (clinical, social or cultural) for women, partners and families who were continuing to consume alcohol while pregnant and/or breastfeeding
4. Training for multi-disciplinary ACCHO staff specifically related to FASD, the harms of alcohol consumption while pregnant and/or breastfeeding, or materials to support people and families affected by FASD
5. *[Post-grant survey only]* Dissemination and/or promotion of the *Strong Born* Campaign materials through additional printing, social media campaign spending or other means
6. *[Post-grant survey only]* Creation and/or dissemination of materials with translations of *Strong Born* Campaign materials or Campaign key messages into Aboriginal and Torres Strait Islander languages

For each activity listed above, the surveys prompted ACCHOs to provide information (if appropriate) relating to the intended target audience, activity purpose, key topics/themes covered, geographic reach, and staff/individuals involved in activity development and/or dissemination.

The pre-grant survey prompted ACCHOs to identify communications and engagement activities that they intend to use the grant funding for (including details on the audience/s supported, key topics or areas of focus, types of engagement activities, geographic reach of materials and activities).

The post-grant satisfaction survey also assessed:

1. The sustainability of delivering activities/ACCHOs intention to continue delivering communications and engagement activities beyond the FASD grant funding
2. Facilitators and barriers to the development and/or delivery of communications and engagement activities

Survey Completion

The pre-grant survey was completed by N=23 successful grant applicants/ACCHOs. Over half (57%, n=13) completed the post-grant satisfaction survey.

Interviews with Key Aboriginal Community Controlled Health Organisations (ACCHOs)

The impact evaluation involved interviews with key regional and remote Aboriginal Community Controlled Health Organisations approximately 6-8 months post distribution of the FASD Grant

funding. The semi-structured interviews aimed to expand on the outcomes collected in the post-grant satisfaction survey with a key focus on:

1. Awareness and perceptions of the *Strong Born* Campaign
2. ACCHOs' experience of the grant program and impact on community
3. Sustainability of delivering communication and engagement activities/ACCHOs' intention to continue delivering communication and engagement activities beyond grant funding
4. Enablers, barriers and critical success factors for effective and sustainable implementation of communication and engagement activities
5. Experience with funding provider

There were two subgroups for interviews:

1. NACCHO member who received the FASD Grant
2. NACCHO member who was eligible but did not receive the FASD Grant

The inclusion of subgroup 2 (non-funded NACCHO member) aimed to explore the effectiveness of other models and interventions in comparison to NACCHO member organisations who received the FASD Grant funding. The evaluation team note that non-NACCHO member organisations were not included in the evaluation.

The semi-structured interview guide invited discussion regarding the impact of the FASD Grant funding. Each interview/focus group participant provided informed consent before the interview/focus group commenced. Indigenous field research assistants with professional expertise in health and/or alcohol and other drug use facilitated data collection. Interviews or focus groups were used depending on the number of staff who were available/consent to participate. Interviews continued until saturation was reached (up to one-hour). Interviews/focus groups were digitally recorded, transcribed, and de-identified. Thematic analysis was undertaken by Aboriginal researchers to identify common themes/patterns.

Data Generation

As per ethics approval, NACCHO helped broker the relationship between ACCHOs and the evaluation team. A total of eight interviews were completed online via Teams in June-July 2024.

Interview Subgroup 1: NACCHO member who received the FASD Grant

All funded Grant Round 1 ACCHOs (N=23) were invited to participate in an interview irrespective of whether they completed the post-grant satisfaction survey. Seven ACCHOs (30%) agreed to participate. Two of the seven ACCHOs had not completed the post-grant satisfaction survey.

Interview Subgroup 2: NACCHO member who was eligible but did not apply for or receive the FASD Grant

Seven ACCHOs were invited to participate. NACCHO identified these ACCHOs to be a similar remoteness classification and to serve a similar size community as the ACCHOs in *Interview Subgroup 1*. One ACCHO, who applied for the FASD Grant and was not successful, agreed to participate and completed an interview.

Notes for interpreting key findings

- For further information on evaluation methods and results, please refer to Appendix A which provides a list of reports and presentations completed during the evaluation.
- We acknowledge that some people who experience pregnancy and/or breastfeeding do not identify as women. Following the Australian Alcohol Guidelines developed by the National Health and Medical Research Council (NHMRC), this report refers to “women who are pregnant/breastfeeding”.
- Some percentages do not add up to 100%. This may be due to rounding, the exclusion of answers such as “don’t know”, “prefer not to say” or “not applicable” or being multiple response questions.
- Survey respondents were asked some questions with an open-ended response frame. In order to analyse and summarise results, thematic analysis was undertaken on verbatim responses to code similar responses into themes. Some responses qualify for multiple themes.

Key Findings

Key evaluation findings are presented by Campaign Stream. Please refer to Appendix A (Evaluation Reports) for further information on Campaign activities, evaluation methods and results.

Stream 1: General Public Awareness Campaign

Campaign Awareness and Reach

Among the general population (Australians 18+) (Results from the National Post-Campaign survey)

In October 2023, 45.5% of the Australian general population recognised the *Every Moment Matters* Campaign.

Recognition by Advertising Channel

Free-to-air TV and Broadcast Video on Demand (BVOD) (catch up/on demand TV) were the advertising channels that achieved the highest reach among the Australian general population, with 34.9% of Australians reporting seeing the Campaign on free-to-air TV, 13.6% on BVOD, 12.7% on social media, 9.8% on radio, 7.7% as a poster/brochure, 7.0% on a website/online blog or forum, 6.1% at a shopping centre, and 2.1% via podcast. 14.3% of Australians also reported seeing the Campaign at a doctors, maternity care provider clinic or hospital.

Among Australians who saw the Campaign on social media (12.7%), the Campaign was most often seen or heard on Facebook (66.9%), YouTube (46.6%), Instagram (22.9%), TikTok (10.2%), Spotify (4.6%), and X (Twitter) (3.4%).

Recognition by Campaign target audience

Campaign recognition was significantly higher among the key Campaign target audience of women trying to conceive (65.2%), compared to general population women aged 18-44 years (43.0%, p=.039).

Recognition by geographical location and sociodemographic characteristics

Australians living in New South Wales (50.1%) and Victoria (50.0%) were significantly more likely to report having seen or heard the Campaign than South Australians (38.5%)[5] and Western Australians (32.1%).[6] Campaign recognition did not significantly differ among Australians living in metropolitan (45.0%) or regional areas (46.6%) (*p*=ns).

Women were significantly more likely to recognise the Campaign (51.3%) compared to men (40.0%, *p*<.001). Campaign recognition was also significantly higher (*p*<.001) among Australians aged 65+ years (54.5%) than those aged 25-44 years (43.7%); and among Australians aged 25-44 years (43.7%), 45-64 years (47.9%), and 65+ years (54.5%) than those aged 18-24 years (32.3%).

Among the Campaign target audience[7] (Results from November 2023 within-campaign tracking survey)

The most recent within-campaign tracking survey conducted in November 2023 found that 67.2% of the Campaign target audience recognised the *Every Moment Matters* Campaign. This is a significant increase from 45.8% in January 2022 after the first burst of Campaign activity (*p*<.001).

As shown in Figure 4, the largest increases in Campaign recognition were observed between survey Waves 1 to 2 and Waves 2 to 3, indicating that the Campaign was gaining traction and reaching a broader audience during these periods. The rate of increase in Campaign recognition slowed noticeably between survey Waves 4 to 5. This may be a reflection of the media buying strategy as there was no free-to-air TV advertising during the last survey wave, or an indication that the Campaign has reached a saturation point in the target audience.

[5] NSW: 50.1% vs. SA: 38.5%; *p*=.032. VIC: 50.0% vs. SA: 38.5%; *p*=.046.
[6] NSW: 50.1% vs. WA: 32.1%; *p*<.001. VIC: 50.0% vs. WA: 32.1%; *p*<.001.
[7] Australian residents who usually consume alcohol and individuals who were currently or recently planning a pregnancy or trying to conceive (including partners); individuals who were pregnant or breastfeeding (including partners); women aged 18-44 years who weren't planning a pregnancy, trying to conceive, pregnant or breastfeeding at time of survey.

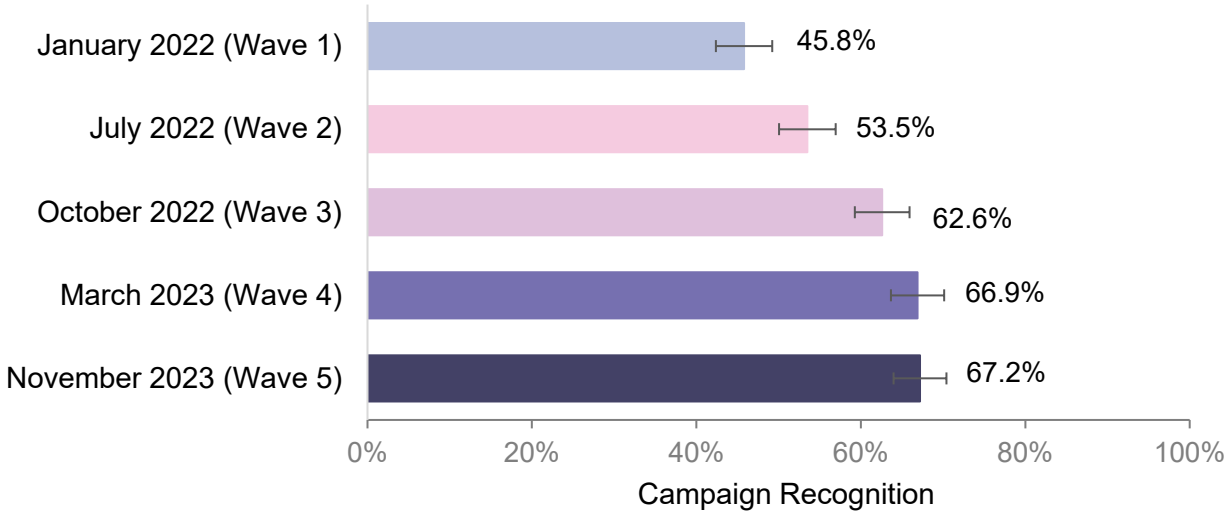


Figure 4. Campaign recognition among the Campaign target audience

Source: Within-campaign tracking surveys

Recognition by Advertising Channel

Recognition by advertising channel was similar to results found within the Australian general population. The Campaign target audience most often reported seeing or hearing the Campaign on free-to-air TV (50.4%), on radio (37.5%), at a doctors, maternity care provider clinic or hospital (34.4%), on social media (33.7%), on BVOD (31.5%), as a poster/brochure (24.4%), on a website/online blog or forum (24.4%), at a shopping centre (21.7%), via podcast (17.1%), and at the cinema (12.8%).

Recognition by Campaign target audience

Campaign recognition was significantly higher among women who were pregnant and/or breastfeeding (84.0%), compared to all other target audience subgroups (women trying to conceive/planning a future pregnancy: 67.0%, general population women aged 18-44 years: 59.9%, and partners of women who were pregnant/breastfeeding/trying/planning: 57.5%) (p<.001).

Recognition by geographical location and sociodemographic characteristics

There were no significant differences in Campaign recognition by jurisdiction. Among the Campaign's target audience, recognition was significantly higher among those living in metropolitan areas (69.6%) compared to those living in regional areas (60.1%) (p=.011).

As would be expected, women were significantly more likely to recognise the Campaign (69.6%) compared to men (59.0%, *p*=.007). Subgroup analyses by age group were not conducted for the within-campaign tracking survey data because 88.6% of the sample were aged 24-44 years, which aligns with the expected age characteristics of the Campaign's target audience.

Recognition by advertisement type

The 30-second TV ad and the Radio ad (Dinner Party) were recognised at similar levels (56.3% and 53.1%, respectively). Recognition of the Digital *Every Moment Matters* ad (41.1%) was significantly lower than both the 30-second TV ad and the Radio ad (Dinner Party).

Audience Reach (Results provided by Customedia)

Across all advertising channels, the Campaign consistently exceeded most media buying benchmarks and expected delivery outcomes as per Customedia reports. Over the three years of Campaign activity there were:

- 65.7 million completed video views
- 9.8 million people reached via social media
- 9.8 million digital audio listens (podcasts and streaming)
- 2.8 million women aged 18-49 reached via radio
- 660,965 website sessions
- 171,345 content article clicks (case studies/testimonials)
- 13,439 paid search conversions on site
- 5,840 PDF downloads of resources from the Campaign website
- 17,138 outbound link clicks for more information

Perceptions of the Campaign (Evaluation Aim 7)

For further information on the target audience's perceptions of the appropriateness of the Campaign materials, please refer to within-campaign tracking reports listed in Appendix A (Evaluation Reports).

Overall, results the Campaign was generally received positively and resonated well with the target audience. The Campaign advertisements were perceived as highly effective, with a

strong majority of respondents agreeing that the ads clearly conveyed the message that alcohol should not be consumed during pregnancy. Approximately three-quarters of respondents felt that the ads gave them confidence to resist drinking during pregnancy, inspired them to stop drinking alcohol when trying to conceive, and motivated them to abstain from alcohol during pregnancy. These results were supported by qualitative feedback suggesting that the Campaign was informative, had a clear message, was thought provoking, and the target audience particularly valued the Campaign's positive tone. Additionally, there was very low agreement among the Campaign target audience that the advertisements exaggerated the risks of drinking alcohol during pregnancy. These results imply that the Campaign successfully delivered a clear and persuasive message about the harms of alcohol consumption during pregnancy without overstating the risks. Communicating Campaign messages that are perceived as credible and balanced are important to maintain trust with the Campaign's target audience.

Impact of the Campaign on Knowledge (Evaluation Aims 1, 2 & 4)

Awareness of FASD and the impact on children

There was a significant increase in the proportion of Australians who had heard of FASD from 51.5% pre-campaign to 54.4% post-campaign (p=.023).

Results from the within-campaign tracking surveys found that among the Campaign target audience, knowledge of the characteristics of FASD and other harms associated with alcohol consumption during pregnancy remained stable or showed non-significant improvements from Wave 1 (January 2022) to Wave 5 (November 2023) (Table 1). Knowledge that FASD, intellectual disabilities, and social and emotional delays/problems are harms associated with alcohol consumption during pregnancy increased significantly from Wave 1 to Wave 5. Notably, the proportion of the Campaign target audience that reported they were "*not sure"* about the harms decreased significantly from 12.7% in Wave 1 to 7.9% in Wave 5.

Table 1. Knowledge of the characteristics of FASD and other harms of alcohol consumption during pregnancy

	Wave 1 (January 2022) N=812 % [95% CI]	Wave 5 (November 2023) N=819 % [95% CI]	Significant change
FASD	59.4 [56.0-62.8]	64.7 [61.4-68.0]	**Significant ↑ *p = .027***
Miscarriage	53.1 [49.7-56.5]	55.8 [52.4-59.2]	Not sig.
Brain damage	52.5 [49.1-55.9]	54.9 [51.5-58.3]	Not sig.
Premature/pre-term birth	54.7 [51.3-58.1]	54.8 [51.4-58.2]	Not sig.
Low birth weight	51.7 [48.3-55.1]	54.8 [51.4-58.2]	Not sig.
Delayed physical development	47.8 [44.4-51.2]	52.6 [49.2-56.0]	Not sig.
Intellectual disabilities	46.8 [43.4-50.2]	52.1 [48.7-55.5]	**Significant ↑ *p = .032***
Delayed learning development	48.3 [44.9-51.7]	51.0 [47.6-54.4]	Not sig.
Stillbirth	45.6 [42.2-49.0]	48.7 [45.3-52.1]	Not sig.
Organ damage	44.8 [41.4-48.2]	46.2 [42.8-49.6]	Not sig.
Behavioural problems, such as impulsivity and distractibility	39.4 [36.0-42.8]	43.2 [39.8-46.6]	Not sig.
Social and emotional delays/problems	35.5 [32.2-38.8]	40.3 [36.9-43.7]	**Significant ↑ *p = .046***
Facial abnormalities	30.2 [27.0-33.4]	34.4 [31.1-37.7]	Not sig.
Poor memory	29.2 [26.1-32.3]	32.8 [29.6-36.0]	Not sig.
Difficulty understanding consequences of actions	25.2 [22.2-28.2]	28.9 [25.8-32.0]	Not sig.
Not sure	12.7 [10.4-15.0]	7.9 [6.1-9.7]	**Significant ↓ *p = .001***
None of these	0.9 [0.3-1.5]	2.0 [1.0-3.0]	Not sig.
Prefer not to say	0.4 [0.0-0.8]	0.1 [0.0-0.3]	Not sig.

Note: Multiple responses were allowed. *p<.05.
Source: Within-campaign tracking surveys

Perceptions of knowledge

There was a significant decrease in the proportion of Australian's who strongly agreed that they are *unsure how much alcohol is actually okay to drink during pregnancy* from 8.1% pre-campaign to 6.4% post-campaign (p=.011). This indicates that the Campaign may have

successfully clarified the risks of alcohol consumption during pregnancy, reducing uncertainty among the public.

Knowledge that alcohol should not be consumed during pregnancy

From pre-campaign to post-campaign there were significant increases in the proportion of Australians who correctly reported that there is no safe amount, no safe type, and no safe time to consume alcohol during pregnancy (Table 2). These results suggest that the Campaign increased knowledge that alcohol should not be consumed during pregnancy among the general Australian population.

Table 2. Awareness that there is no safe amount, no safe type and no safe time to consume alcohol during pregnancy

	Pre-Campaign (October 2021) N=2,991	Post-Campaign (October 2023) N=3,116	Significant change
	% (95% CI)		
There is **no safe number of standard alcoholic drinks** a pregnant woman can consume on any one day to avoid harm to the developing baby	73.3 [71.7-74.9]	79.6 [78.2-81.2]	**Significant ↑** ***p < .001***
There is **no safe type of alcohol** that can be consumed during pregnancy	69.2 [67.5-70.8]	73.2 [71.7-74.7]	**Significant ↑** ***p < .001***
There **is no safe time** to consume alcohol during pregnancy	67.5 [65.8-69.2]	73.5 [72.0-75.0]	**Significant ↑** ***p < .001***

Source: National pre-post Campaign surveys

Understanding of the Campaign messages / Knowledge of the risks of alcohol consumption during pregnancy

Post-campaign, there was a significant increase in the proportion of Australians who strongly agreed with several key messages communicating the risks of alcohol consumption during pregnancy (Table 3). These messages included the *importance of abstaining from alcohol to protect the baby's health* (from 53.1% pre-campaign to 58.1% post-campaign), the potential for alcohol to *damage the developing brain of a baby* (40.6% to 44.5%), and that *drinking alcohol during pregnancy can cause lifelong disabilities for the baby* (38.1% to 42.0%). Additionally, there was a notable rise in the belief that F*ASD can be prevented by drinking any alcohol from the moment women start trying for a baby* (34.6% to 40.9%), as well as the understanding that

any alcohol consumed during pregnancy passes to the baby (27.4% to 30.1%). More Australians also strongly agreed that *women should stop drinking alcohol when trying to conceive because it can damage the developing embryo* (27.9% to 32.7%) and strongly disagreed with the misconception that *drinking alcohol while breastfeeding is unlikely to harm the baby* (23.4% to 29.5%). These results imply that the Campaign effectively strengthened public agreement with key Campaign messages, potentially leading to better-informed decisions and behavioural intentions regarding alcohol consumption during pregnancy and breastfeeding.

Table 3. Agreement with key Campaign messages

	Pre-Campaign (October 2021) N=2,991	Post-Campaign (October 2023) N=3,116	Significant change
	% strongly agree [95% CI]		
It is best to abstain from alcohol completely during pregnancy to protect the health of the baby	53.5 [51.7-55.3]	58.1 [56.5-59.8]	**Significant ↑** ***p < .001***
Drinking alcohol during pregnancy can damage the developing brain of a baby	40.6 [38.9-42.4]	44.5 [42.8-46.2]	**Significant ↑** ***p = .002***
Drinking alcohol during pregnancy can damage the developing organs of a baby	35.9 [34.2-37.7]	38.0 [36.3-39.6]	Not sig.
Drinking alcohol during pregnancy can cause lifelong disabilities for the baby	38.1 [36.4-39.8]	42.0 [40.3-43.7]	**Significant ↑** ***p = .001***
Fetal Alcohol Spectrum Disorder (FASD) can be prevented by not drinking any alcohol from the moment women start trying for a baby	34.6 [32.9-36.3]	40.9 [39.3-42.6]	**Significant ↑** ***p < .001***
Any alcohol a pregnant woman drinks passes to the baby, at every stage of pregnancy	27.4 [25.8-29.0]	30.1 [28.6-31.7]	**Significant ↑** ***p = .017***
Women should stop drinking alcohol when trying to conceive because it can damage the developing embryo	27.9 [26.3-29.5]	32.7 [31.1-34.3]	**Significant ↑** ***p < .001***
Men should stop drinking alcohol when trying to conceive because it can reduce chances of successful conception and may harm the developing baby	14.2 [13.0-15.5]	15.7 [14.5-16.9]	Not sig.
Drinking alcohol while breastfeeding is unlikely to harm the baby *[% Strongly disagree]*	23.4 [21.9-24.9]	29.5 [28.0-31.1]	**Significant ↑** ***p < .001***

Source: National pre-post Campaign surveys

Awareness of the current National Health and Medical Research Council (NHMRC) alcohol guidelines for pregnancy and breastfeeding

Guideline 3 of the current Australian guidelines to reduce health risks from drinking alcohol states that (7):

A. *To prevent harm from alcohol to their unborn child, women who are pregnant or planning a pregnancy should not drink alcohol.*

B. *For women who are breastfeeding, not drinking alcohol is the safest option for their baby.*

As shown in Table 4, the proportion of Australians who correctly identified the alcohol guideline for women who are pregnant or planning pregnancy increased significantly from 32.7% pre-campaign to 44.6% post-campaign (p<.001). Awareness of the guideline for breastfeeding women also increased significantly from 64.7% pre-campaign to 74.0% post-campaign (p<.001). These findings suggest that the Campaign may have been a contributing factor to raising awareness of the current alcohol guidelines for pregnancy and breastfeeding among the Australian general population.

Table 4. Awareness of the current Australian Alcohol Guidelines for pregnancy and breastfeeding

	Pre-Campaign (October 2021) N=2,991	Post-Campaign (October 2023) N=3,116	Significant change
	% Correct (95% CI)		
Guideline for women who are pregnant or planning a pregnancy			
To prevent harm from alcohol to their developing baby, women who are pregnant or planning a pregnancy should not drink alcohol	32.7 [31.0-34.4]	44.6 [42.9-46.2]	**Significant ↑** ***p < .001***
Guideline for breastfeeding women			
For women who are breastfeeding, not drinking alcohol is the safest option	64.7 [62.9-66.4]	74.0 [72.5-75.5]	**Significant ↑** ***p < .001***

Source: National pre-post Campaign surveys

Impact of the Campaign on Behaviour and Behavioural Intentions (Evaluation Aims 3 & 5)

The following results are from the national pre-post campaign surveys. As the Campaign aimed to change behavioural intentions of current drinkers, non-drinkers are not included in these results (approximately 30% of each pre- and post-campaign sample). The post-campaign sample for these analyses includes those who had seen the Campaign prior to the survey. Some behavioural intentions differed by Campaign recognition. Further information is provided in the report:

Caruso, J., Miller, C., Bowden, J. *National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): Evaluation Report: Post-Campaign National Survey Topline Results.* South Australian Health and Medical Research Institute. Adelaide, Australia: April 2024.

Alcohol consumption when trying to conceive

The Campaign had a significant impact on both the intentions and behaviours of women regarding alcohol consumption when trying to conceive, positively motivating and influencing women to abstain from alcohol during this period.

Intention

Among *women who were planning a pregnancy in the next two years* (who were not actively trying to conceive), there was a significant increase in intention to abstain from alcohol when trying to conceive from 34.2% pre-campaign to 54.0% post-campaign among those who had seen the Campaign (p=.040).

Behaviour

Among *women who planned their recent pregnancy*, there was a significant increase in the proportion who reported that they abstained from alcohol consumption when trying to conceive from 30.7% pre-campaign to 58.3% post-campaign among those who had seen the Campaign (p=.014).

Alcohol consumption after pregnancy confirmation

Although the below outcomes failed to reach statistical significance, the results suggest that the Campaign showed positive signs of encouraging alcohol abstinence after pregnancy confirmation.

Intention

Among *women planning pregnancy in the next two years* and *women actively trying to conceive,* intention to abstain from alcohol after pregnancy confirmation increased from 84.4% pre-campaign to 87.2% post-campaign for those who had seen the Campaign. However, this change was not statistically significant (p=.608).

Behaviour

Among *women who were currently/recently pregnant*, the proportion who abstained from alcohol after pregnancy confirmation increased from 66.0% pre-campaign to 80.2% post-campaign among those who had seen the Campaign. The change in abstinence approached statistical significance (p=.082).

Alcohol consumption while breastfeeding

Note: results relating to drinking behaviour and intention to abstain from alcohol while breastfeeding may not accurately reflect Campaign effectiveness as this outcome measure was developed before Campaign messages were finalised. After the pre-campaign survey, the Campaign used a harm minimisation approach to promote safe breastfeeding strategies, not abstinence.

Intention (to abstain from alcohol)

Intention to consume alcohol while breastfeeding remained relatively stable among *women planning pregnancy in the next two years, women actively trying to conceive,* and *pregnant women.* There was a significant increase in the proportion of this subgroup who reported that they were "*unsure"* or "*hadn't given this any thought yet"* (Pre-campaign: 2.3%, Post-campaign: 8.6%; p=.025). The increased uncertainty about drinking while breastfeeding highlights the ongoing need for clear education regarding safe breastfeeding practices.

Behaviour (abstained from alcohol)

There were no significant changes in drinking behaviour, in regards to complete abstinence, while breastfeeding.

Safe breastfeeding strategies

Women who reported that they had consumed or intend to consume alcohol while breastfeeding were asked about what they did/would do on occasions when drinking. Pre-campaign, participants could select multiple responses from five strategies. In response to updated Campaign messages that adopted a harm minimisation approach, four additional strategies were included in the post-campaign survey to better align with the Campaign messages.

Intention to use alcohol and breastfeeding strategies

Intention to use breastfeeding strategies mostly remained stable from pre-campaign to post-campaign. The most common strategies women reported intention to use were 'express milk prior to the consumption of alcohol and give expressed milk to the child' (Pre-campaign: 71.1%, Post-campaign: 71.2%; not significant), 'plan ahead before drinking alcohol' (Post-campaign: 51.4%), and 'drink immediately after a feed/long enough before next normal feed so alcohol has cleared my system' (Pre-campaign: 38.5%, Post-campaign: 37.7%; not significant). Intention to use formula milk in place of breastfeeding approached statistical significance (Pre-campaign: 27.3%, Post-campaign: 37.2%; not significant p=.069). There was a significant decrease in intention to 'delay breastfeeding by up to 60 minutes from normal feed time' from 11.1% pre-campaign to 4.2% post-campaign. However, this change in intention is likely due to the inclusion of two additional strategies/response options (to delay breastfeeding by '1-2 hours' or 'more than two hours').

Use of alcohol and breastfeeding strategies (behaviour)

The most common behaviours that over one third of breastfeeding women engaged in were 'planned ahead before drinking alcohol' (Post-campaign: 37.3%), 'drank immediately after a feed/long enough before next normal feed so alcohol has cleared my system' (Pre-campaign: 53.4%, Post-campaign: 37.3%; not significant), 'used the FeedSafe app to know when breastmilk is likely to be free from alcohol' (Post-campaign: 35.3%), and 'expressed milk prior to the consumption of alcohol and give expressed milk to the child' (Pre-campaign: 15.6%, Post-campaign: 35.1%, significant increase p=.040). Similar to intention to use breastfeeding strategies there was a significant decrease in women delaying breastfeeding by up to 60 minutes from normal feed time [(Pre-campaign: 22.2%, Post-campaign: 5.2%, p=.019). This change in behaviour is likely due to the inclusion of two additional strategies/response options (to delay breastfeeding by '1-2 hours' or 'more than two hours').

Behavioural intentions of partners

Partners of women who were trying to conceive, planning pregnancy in the next two years, or were pregnant and/or breastfeeding, were asked about their likelihood of supporting their partner to stop or cut back on their alcohol use during pregnancy, as well as their own likelihood of abstaining from alcohol themselves while they are trying to conceive and during pregnancy (Table 5). Findings from the national pre-post campaign surveys indicate a significant increase in partners' likelihood of supporting women to reduce or abstain from

alcohol use during pregnancy ('Very likely' Pre-campaign: 50.6%, Post-campaign: 54.8%, *p*=.011). The likelihood of partners abstaining from alcohol themselves during their partner's pregnancy also increased significantly from 28.6% pre-campaign to 34.0% post-campaign. Although there was a slight increase in the likelihood of partners abstaining from alcohol while trying to conceive, this change was not statistically significant. These results imply that the Campaign encouraged greater partner involvement in promoting alcohol-free pregnancies, potentially fostering a supportive environment for maternal and infant health.

Table 5. Likelihood that partners would support women to be alcohol-free during pregnancy or would abstain from alcohol themselves

How likely are you to:	Pre-Campaign (October 2021) n=1,671 % Very likely (95% CI)	Post-Campaign (October 2023) n=1,937 % Very likely (95% CI)	Significant change
Support them to stop or cut back on their alcohol use during the pregnancy	50.6 [48.2-53.0]	54.8 [52.6-57.0]	**Significant ↑** ***p = .011***
Stop drinking alcohol yourself while they are trying to become pregnant	32.8 [30.6-35.1]	34.9 [32.8-37.0]	Not sig.
Stop drinking alcohol yourself during their pregnancy	28.6% [26.5-30.8]	34.0% [31.9-36.1]	**Significant ↑** ***p < .001***

Source: National pre-post Campaign surveys

Behavioural intentions of family and friends

Australians were asked how likely they would be to support a close friend or family member to abstain from or reduce their alcohol consumption during pregnancy if they were to become pregnant (Table 6). The proportion of Australians who were "very likely" to support their friend or family member increased slightly from 67.3% pre-campaign to 69.2% post-campaign, however this change was not statistically significant (*p*=.093).

Table 6. Likelihood that family and friends would support women to be alcohol-free during pregnancy

How likely are you to:	Pre-Campaign (October 2021) N=2,991 % Very likely (95% CI)	Post-Campaign (October 2023) N=3,116 % Very likely (95% CI)	Significant change
Support them to stop or cut back on their alcohol use during the pregnancy	67.3 [65.6-69.0]	69.3 [67.7-70.8]	Not sig.

Source: National pre-post Campaign surveys

Attitudes towards alcohol consumption during pregnancy

Misconceptions

Post-campaign, Australians reported greater disagreement with misconceptions about alcohol consumption during pregnancy which is a positive finding. There was a significant increase in the proportion of Australian's who strongly disagreed that *there is no evidence that small amounts of alcohol during pregnancy can cause harm* from 25.5% pre-campaign to 28.5% post-campaign (p=.006). This suggests that the Campaign was effective in communicating the evidence that even small amounts of alcohol can be harmful during pregnancy. The proportion of Australians who strongly disagreed that *the risks of drinking alcohol during pregnancy are exaggerated* increased significantly from 40.8% pre-campaign to 43.9% post-campaign (p=.010). Implying that the Campaign did not overstate the risks of alcohol consumption during pregnancy and Australians have greater understanding of the true risks.

Perception of social norms

While the proportion of Australians that strongly agreed with the statement: "*In Australia, most people think it is okay for women to drink small amounts of alcohol in pregnancy"* did not decrease significantly (Pre-campaign: 3.8%, Post-campaign: 3.3%; not significant), there was a statistically significant decrease in overall agreement (strongly agree or agree) (Pre-campaign: 42.9%, Post-campaign: 36.3%; p<.001). This suggests that the Campaign might have influenced Australian's perception of social norms, leading to a reduction in the belief that moderate alcohol consumption during pregnancy is socially acceptable.

Perceived importance of the risks of alcohol consumption during pregnancy and breastfeeding

The proportion of Australians who strongly disagreed with the statement that *'women have more important things to worry about than the risks of alcohol consumption during pregnancy and breastfeeding'* significantly increased from 29.3% pre-campaign to 43.1% post-campaign ($p < .001$) (Table 7). This suggests that after the Campaign, more Australians strongly reject the idea that other concerns should take precedence over the risks of alcohol consumption during pregnancy and breastfeeding. The significant increases in strong disagreement and decreases in neutral responses suggest that the Campaign may have helped to clarify the importance of addressing harms of pre- and postnatal alcohol consumption. However, the slight

increase in strong agreement also indicates that a small segment of the population may still prioritise other concerns.

Australians who agreed or strongly agreed that pregnant and breastfeeding women have more important things to worry about than the risks of alcohol consumption during pregnancy and breastfeeding were asked to identify what they considered to be more important. In October 2023 (n=381), Australians highlighted the following as priorities over alcohol: general health and wellbeing, including a healthy diet and vitamins (14.3%); child's development and overall health (13.6%), other potential risks or complications for the mother or baby (12.2%), managing mental health and stress (9.5%), drug use (9.0%), and financial concerns (7.1%). Additionally, 13.1% of respondents were unsure.

Table 7. Belief that women have more important things to worry about than the risks of alcohol consumption during pregnancy and breastfeeding

	Pre-Campaign (October 2021) N=2,991 % (95% CI)	Post-Campaign (October 2023) N=3,116	Significant change
Strongly agree	3.4 [2.8-4.1]	4.9 [4.2-5.7]	**Significant ↑** ***p = .003***
Agree	7.9 [7.0-8.9]	8.0 [7.1-8.9]	Not sig.
Neither agree nor disagree	24.0 [22.5-25.6]	18.9 [17.6-20.3]	**Significant ↓** ***p < .001***
Disagree	34.8 [33.1-36.5]	24.3 [22.9-25.8]	**Significant ↓** ***p < .001***
Strongly disagree	29.3 [27.7-30.9]	43.1 [41.4-44.8]	**Significant ↑** ***p < .001***

Source: National pre-post Campaign surveys

Considerations for Future Campaign Activity

For future Campaign activities, it will be important to maintain and expand the strategies that have proven effective in raising awareness, knowledge, and behavioural intentions, particularly among key target audiences such as women trying to conceive. Campaign recognition has increased significantly, especially in regions like New South Wales and Victoria, and among the target group, indicating that the media buying strategy has been successful. The emphasis on traditional media, particularly television, should continue, as it has been the highly effective in reaching the target audience.

Stream 2: Support for priority groups including women at higher risk of alcohol-exposed pregnancies

Campaign Awareness and Reach

Due to the non-representative sample and recruitment methods, the survey was not designed to accurately measure resource recognition among the target audience. Therefore, recognition rates should be interpreted with caution, as they may not fully reflect the broader population's awareness of these resources.

One quarter of survey participants reporting seeing at least one of the resources prior to the survey. Resource recognition was highest among those who had seen the Out of Home Care (OOHC) brochure (27.5%), followed by the Alcohol and Other Drug (AOD) sector worker brochure (25.9%) and the brochure for women at higher risk of having alcohol-exposed pregnancies (client brochure) (20.6%).

As of 30 June 2024, NOFASD had distributed over 5,800 physical resources (trifold brochures and posters) to at least 30 organisations across Australia. Digital supporter kits that included links to download resources were provided to over 980 organisations, peak bodies, alcohol and other drug services, and other key stakeholders. Over the Campaign period, resources for priority groups were downloaded over 7,000 times from the NOFASD and *Every Moment Matters* websites.

Perceptions of the Campaign (Evaluation Aim 7)

Findings from the audit of alcohol and pregnancy resources for priority groups

The audit of Campaign resources conducted using the Suitability and Comprehensibility Assessment of Materials (SAM + CAM) (10), found that overall, all six resources (three trifold brochures and three posters) received a ‘superior’ rating. This suggests that the health literacy demands of the resources were appropriate for the target audience. Resources presented in a trifold brochure format scored higher overall, compared to resources presented in a poster format. However, this is not of concern and is to be expected as the poster format cannot include as much information as the trifold brochure. The resources typically used an active writing style that was personal and easy to understand, common words were used to convey key messages rather than abstract concepts, relevant background was provided before

presenting new information, and the information included was relevant to the resource's purpose.

Further results are presented in:

Caruso, J., Ellis, R., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): *Progress Report 4 (January 2023 – May 2023).* South Australian Health and Medical Research Institute. Adelaide, Australia: June 2023.

Findings from the online survey of consumer perceptions

Clarity of resource messages

Overall, there were high levels of agreement that key Campaign messages were clearly communicated in all three resources (client, AOD, and OOHC). In particular, 94.1% of respondents who viewed the client resource agreed that the brochure made it clear that *'Help is available if you are pregnant and finding it hard to not to drink alcohol,'* 92.6% of respondents who viewed the AOD resource agreed that the brochure made it clear that *'It is important to share easy to understand information about how alcohol can affect the health of the developing baby,'* and 100.0% of respondents who viewed the OOHC resource agreed that the brochure made it clear that *'People with FASD are more likely to encounter correctional services.'*

Perceived effectiveness

The majority of survey participants across the three resource types found that the brochures were trustworthy (86.2-97.6%), easy to understand (82.4-95.2%), believable (79.3-92.9%), made a strong argument for not drinking alcohol during pregnancy (69.0-81.0%), and that it made them feel motivated to help others to not drink alcohol during pregnancy (78.6-82.4%).

Perceived ease of compliance with resource messages

The majority disagreed with the statements that it is asking too much for pregnant women to stop drinking alcohol completely (88.5%) and for those trying to conceive to abstain entirely (80.8%). This high level of disagreement suggests that most participants believe it is important and reasonable to expect women to abstain from alcohol in these situations. However, the responses were more mixed regarding the ease of giving up alcohol during pregnancy, with 51.9% disagreeing that it is easy and a divided perception on whether it is hard for pregnant women to refuse alcohol (38.5% disagreed, 34.6% agreed, and 23.1% were neutral). These

mixed responses indicate an awareness of the challenges pregnant women may face in abstaining from alcohol, highlighting the potential need for additional resources and support to help them successfully navigate these challenges.

Additional feedback about resources from the Campaign target audience

Qualitative content analysis of open-ended survey responses regarding feedback on the brochures revealed several key topics. Feedback themes were largely consistent across the three brochures and was mostly positive, suggesting that all three brochures were generally well received by participants. Across all brochures, a suggested area for improvement was that further health information could be included with more impactful messaging to effectively raise awareness of the harms of prenatal alcohol consumption. The inclusion of lived experience testimonials were noted as valuable in the Client and AOD brochure. The OOHC brochure was uniquely identified as useful for advocating for children with FASD and it's important to distribute this resource to relevant agencies. Lastly, the Client and OOHC resources received feedback that the accessibility could be improved for those with low literacy levels and different cultural backgrounds.

Impact of the Campaign on Knowledge (Evaluation Aims 1, 2 & 4)

Awareness of FASD and knowledge of other harms of alcohol consumption during pregnancy

Results from the online survey of consumer perceptions found that there was a high level of awareness of FASD among survey respondents (97.1% had heard of FASD). Respondents also had a high level of awareness of the characteristics of FASD and its impact on children, and knowledge of the harms of alcohol consumption during pregnancy. The following were most commonly reported as characteristics of FASD: Delayed learning development (93.3%), behavioural problems (91.4%), social and emotional delays/problems (89.5%), difficulty understanding the consequences of actions (83.8%) and facial abnormalities (82.9%).

Understanding of Campaign messages

Qualitative analysis of survey respondents' descriptions revealed that the Campaign resources effectively conveyed their intended messages, with key points being clearly understood by the target audiences. The client-focused brochure effectively communicated that help and support

are available (58.8%), highlighted the harms of prenatal alcohol consumption (47.1%), and emphasised that women should not feel ashamed or stigmatised (29.4%). Similarly, the AOD brochure conveyed the harms of prenatal alcohol consumption (44.8%), the availability of support (41.4%), and the importance of non-judgmental assistance (31.0%). The OOHC brochure successfully raised awareness about FASD and the harms of prenatal alcohol exposure (61.9%), stressed the importance of early intervention and diagnosis (26.2%), and provided guidance on seeking a FASD diagnosis (19.0%).

The finding that a significant portion of participants identified key messages such as the availability of help and support and the harms of prenatal alcohol consumption indicates that the brochures may be successful in raising awareness and motivating behaviour change. High levels of recognition that help and support is available in the Client brochure implies that the resource could play an important role in reducing barriers to seeking assistance, particularly for women who may feel isolated or stigmatised due to their alcohol dependence during pregnancy.

Similarly, high levels of understanding of the AOD resource messages suggests that the resource has the potential to effectively prepare AOD workers to offer compassionate and informed support to their clients. By addressing the stigma associated with alcohol use during pregnancy and highlighting the importance of non-judgmental support, the resource, when combined with other interventions, could lead to more supportive practices within the AOD sector.

The OOHC brochure's emphasis on FASD awareness, early intervention, and has the potential to increase the capacity of OOHC practitioners, caregivers, and team leaders to recognise and support children with FASD. Improved awareness of FASD in the OOHC sector could lead to earlier diagnoses and more tailored interventions, ultimately improving outcomes for children and young people affected by FASD.

Overall, these findings imply that targeted, accessible resources can effectively communicate complex health messages and possibly encourage positive behavioural outcomes such as support-seeking among priority groups.

Impact of the Campaign on Behavioural Intentions (Evaluation Aim 5)

Intended actions in response to viewing resources

After viewing resources in the survey, the majority of respondents intended to take action in response. The highest intent was among those who viewed the OOHC resource (85.7%), followed by the AOD resource (82.8%), and the Client resource (79.4%). Common actions included discussing the brochures with friends, relatives, or colleagues and searching for more information online. Notably, those who viewed the AOD resource were inclined to consider FASD in clients (31.0%) and seek further training (24.1%). These findings suggest that the resources may be effective in prompting engagement and encouraging further exploration and discussion of Campaign messages.

Likelihood of recommending resources

Survey respondents were highly likely to recommend the Client resource to pregnant individuals or those planning a pregnancy (73.5%) and to those struggling with alcohol use (76.5%). The AOD resource showed a moderate likelihood of being recommended to colleagues (69.2%). The OOHC resource received the highest levels of endorsement, with 86.5% likely to recommend it to pregnant individuals, 75.7% to colleagues, 89.5% to foster carers or guardians, and 86.8% to health workers. These findings imply that the resources were well-received by survey respondents and were considered valuable tools for both individuals and professionals.

Considerations for Future Campaign Activity

Acknowledging the limitations of the non-representative sample and recruitment methods, there was low initial recognition of the resources among the survey sample. It is crucial to increase efforts for broader distribution and visibility to ensure these materials reach more individuals and professionals who can benefit from them. Future campaign activities should build on the success of the NOFASD brochures by continuing to use compassionate, non-judgmental language and including testimonials from individuals with lived experience, as these elements were particularly well-received by the target audiences. By refining and expanding the reach of these resources, future campaign activity has the potential to further support the prevention of FASD and improve outcomes for at-risk populations.

Stream 3: Information and online training for health professionals

Evaluation results are based on three online surveys guided by the Theoretical Domains Framework (14). Two surveys (pre- and post-training) were embedded within the eLearning course hosted by Medcast pre- and post-module 1. The third follow-up survey was completed by health professionals approximately 14 months post-training. For further information please refer to:

Caruso, J., Muminovic, A., Miller, C., Bowden, J. *Evaluation of an eLearning course for health professionals designed to support alcohol-free pregnancies and safe breastfeeding: September 2022 to July 2024.* South Australian Health and Medical Research Institute. Adelaide, Australia: August 2024.

Campaign Awareness and Engagement with eLearning Course

Campaign Recognition

The proportion of health professionals who recognised the Campaign increased slightly from 44.4% before the training to 51.9% after the follow-up survey. However, this increase was not statistically significant (p=.346). The proportion of health professionals who had seen and/or used the *Every Moment Matters* Campaign resources increased significantly from 17.3% pre-training to 40.7% in the follow-up survey (p=.001). The findings suggest that while the training was successful in promoting the use of Campaign resources, further efforts are needed to increase overall Campaign recognition among health professionals to maximise the Campaign's impact on reducing harms from alcohol consumption during pregnancy.

Engagement with eLearning Course

As of 22 April 2024: 1,303 health professionals had enrolled in the eLearning course. Just over half (61.9%, n=807) of those enrolled had commenced the course. All five course modules had been completed by 36.2% (n=472) of those enrolled. Completion rates for each course module are shown in Table 8. Overall, 670[8] health professionals had completed the pre-training survey,

[8] N=670 health professionals completed the pre-learning survey, however 21 survey responses were removed from the data set during data cleaning as they failed data validation checks.

and 400 had completed both pre- and post-training surveys. A total of 81 valid follow-up survey completions were recorded.

Table 8. Completion rates for individual modules of the eLearning course as of 22 April 2024

		Completion Rate	
		of those enrolled	of those who commenced course
		N=1,303	N=807
	n	%	%
All 5 modules	472	36.2	58.5
Module 1: Alcohol and pregnancy	472	36.2	58.5
Module 2: Summary of evidence	383	29.4	47.5
Module 3: Fetal Alcohol Spectrum Disorder	364	27.9	45.1
Module 4: Brief intervention and motivational interviewing	357	27.4	44.2
Module 5: Alcohol and breastfeeding	361	27.7	44.7

Perceptions of the eLearning Course (Evaluation Aim 7)

Health professionals who completed the post-training survey (n=400) expressed overall satisfaction with the eLearning course, with 92.9% reporting high levels of satisfaction and 92.1% found the content relevant to their work. A significant majority were willing to recommend the course to colleagues (88.6%), found it engaging (88.6%), and particularly valued the clinical scenarios (96.2%) and videos (86.1%) for enhancing their learning. However, some participants (20.4%) felt the course content was too basic for their expertise, and 15.7% found the course difficult to follow. Additionally, around 40% of respondents provided suggestions for improvements, including the desire for more clinical scenarios, detailed information, enhanced mobile-friendliness, technical issue resolution, clearer questions in scenarios, and further information on the AUDIT-C. The high levels of satisfaction and relevance reported by health professionals suggest that the eLearning course was generally perceived as effective and was well-received. However, the feedback indicating that some found the content too basic and encountered usability issues implies a need for more tailored content and technical improvements. Incorporating suggestions for additional clinical scenarios, detailed information, and enhanced mobile-friendliness could further improve the course's value and accessibility, ensuring it better meets the diverse needs of its participants.

Impact of the eLearning Course on Knowledge (Evaluation Aim 1, 2, and 4)

Knowledge of the risks associated with alcohol consumption during pregnancy

Pre-Post Training

The proportion of participants correctly identifying FASD as a risk factor were the same pre- and post-training (pre-training: 94.5%, post-training: 94.8%). The proportion of health professionals correctly identifying other risks such as low birth weight, delayed learning development, premature/pre-term birth, miscarriage, stillbirth, brain damage, delayed physical development, behavioural problems, organ damage, social and emotional delays and poor memory, all showed significant improvements after training (p<.05).

Pre-training, Post-Training to Follow-up survey

Increases in knowledge were particularly strong immediately post-training but were not always sustained at follow-up. Analysis conducted across all three surveys (n=81) found that significant increases in knowledge were maintained at follow-up for the following outcomes: premature/pre-term birth, stillbirth, behavioural problems, and social and emotional delays/problems. Knowledge of the risks of miscarriage and organ damage also increased significantly from pre-training to follow-up, though these increases were smaller than those observed immediately post-training. The significant increases in knowledge of the risks of low birth weight and brain damage seen from pre-training to post-training were not sustained at follow-up.

Knowledge of the number of standard drinks pregnant women can consume per day to avoid harm to the developing baby

Pre-Post Training

Knowledge that pregnant women should not consume any alcohol was high prior to completing the training (89.1%) and further increased to 95.9% after completing the eLearning course. This was statistically significant (p<.001).

Pre-training, Post-training to Follow-up survey

There was high knowledge at all three time points that pregnant women should not consume any number of standard drinks per day to avoid harm to the developing baby (92.5% pre-

training, 98.8% post-training, 100.0% at follow-up). All participants in the follow-up survey correctly reported that pregnant women should not consume any number of standard drinks, therefore significance testing from pre-training to follow-up could not be definitively completed due to quasi-complete separation.

Belief that it is safe to consume alcohol during certain stages of pregnancy

Pre-Post Training

The proportion of health professionals who reported that there was *"no safe time to consume alcohol"* increased from 85.3% pre-training to 93.5% post-training. This was also statistically significant ($p<.001$).

Pre-training, Post-training to Follow-up survey

The proportion of health professionals who reported that there was *"no safe time to consume alcohol"* increased significantly from 84.0% pre-training to 95.0% post-training ($p=.030$). This improvement was sustained over time (follow-up: 95.1%, $p=.029$), indicating that the training had a lasting impact on health professionals' belief that there is no safe time to consume alcohol during pregnancy.

Knowledge of key eLearning course messages

Pre-Post Training

The results indicate that after completing the eLearning course, there was a significant increase in knowledge that *alcohol exposure during the early weeks of pregnancy can alter placental cells* (pre-training: 74.4%, post-training: 95.7%, $p<.001$).

For the message about *alcohol use during pregnancy disrupting fetal development and resulting in FASD,* there was a high level of agreement both before and after training (pre-training: 95.0%, post-training: 96.4%). Therefore, there was no statistically significant change ($p=.298$).

Similarly, the message about *FASD being a lifelong condition impacting various aspects of functioning and performance* received a high level of agreement both before and after training (pre-training: 93.0%, post-training: 91.9%), and was not statistically significant ($p=.316$).

Pre-training, Post-training to Follow-up survey

There was a significant increase in knowledge that alcohol exposure during the early weeks of pregnancy can alter placental cells from 81.5% pre-training to 98.8% post-training (p=.006). The immediate post-training effect was particularly strong, and although the agreement slightly decreased at follow-up (92.6%), it remained significantly higher than pre-training levels (p=.041).

Similar to results found in the larger pre-post training surveys, there were high levels of agreement that alcohol use during pregnancy disrupts fetal development resulting in FASD across all three surveys (pre-training: 100.0%, post-training: 98.8%, follow-up: 98.8%). Likewise, the message about FASD being a lifelong condition impacting various aspects of functioning and performance received a high level of agreement across all surveys (pre-training: 97.5%, post-training: 96.3%, follow-up: 100.0%).

Knowledge of NHMRC guidelines

Pre-Post Training

Agreement with the guideline for women who are pregnant or planning pregnancy remained high pre- and post-training (pre-training: 95.0%, post-training: 96.2%, p=.406). Agreement with the guideline for women who are breastfeeding increased significantly from 90.4% pre-training to 95.2% post-training (p=.011).

Pre-training, Post-training to Follow-up survey

Agreement with the guideline for women who are pregnant or planning pregnancy remained high across all three surveys (pre-training: 98.8%, post-training: 97.5%, follow-up: 97.5%). Therefore, there was no significant change in agreement across the pre-training, post-training, and follow-up periods. There was a steady increase in agreement with the guideline for women who are breastfeeding across all time points. Agreement increased significantly from 89.9% pre-training to 98.8% in the follow-up survey (p=.040).

Impact of the eLearning Course on Attitudes

Beliefs about capabilities (pregnancy)

Pre-Post Training

Post-training, health professionals were significantly more likely to agree that they felt comfortable initiating conversations about alcohol consumption with pregnant patients (pre-training: 71.6%, post-training: 88.8%, p<.001) and were more confident in providing advice (pre-training: 56.6%, post-training: 86.2%, p<.001). They were also significantly less likely to find it difficult to ask pregnant patients about alcohol use (pre-training: 19.9%, post-training: 9.3%, p=<.001) or report that they are confused about what advice to give to patients in different situations about alcohol consumption during pregnancy (pre-training: 17.2%, post-training: 7.3%, p<.001).

Pre-training, Post-training to Follow-up survey

The proportion of health professionals who felt confident in providing advice about alcohol during pregnancy increased from 57.6% pre-training to 85.1% post-training (p<.001) and remained elevated at follow-up (78.7%, p=.008). Similarly, the proportion of health professionals who felt comfortable initiating conversations about alcohol consumption increased significantly from 70.6% pre-training to 88.0% at follow-up (p=.012). There was no significant change in the belief that it is difficult to ask pregnant patients about their alcohol consumption across the three time points. However, confusion about what advice to give in different situations significantly decreased from 16.4% pre-training to 1.5% post-training (p=.016), with no significant change at follow-up.

Beliefs about outcomes of assessing alcohol consumption (pregnancy)

Pre-Post Training

After training, health professionals expressed increased belief that providing advice about alcohol during pregnancy can prompt patients to change their drinking behaviour (pre-training: 62.4%, post-training: 81.2%, p<.001), and increased belief in the effectiveness of brief intervention following training (pre-training: 59.4%, post-training: 68.9%, p=<.001). Additionally, health professionals showed an increased belief that pregnant patients who find it difficult to stop drinking would accept support when referred to specialist services (pre-training: 34.5%, post-training: 50.1%, p<.001).

Completion of the training was significantly associated with reduced concerns about patient reactions when initiating conversations about alcohol consumption during pregnancy (pre-training: 21.9%, post-training: 10.2%, $p<.001$). There was reduced agreement that alcohol consumption during pregnancy was a low priority for their patients (pre-training: 10.9%, post-training: 5.9%, OR=0.51, $p=.019$). Health professionals did not perceive that assessing alcohol consumption during pregnancy would negatively affect their relationships with patients (pre-training: 6.7%, post-training: 4.4%, $p=.204$).

Pre-training, Post-training to Follow-up survey

While there were some significant changes from pre-to post-training in beliefs about the consequences of assessing alcohol consumption during pregnancy, none of these changes were sustained at follow-up.

Environmental context and resources (pregnancy)

Pre-Post Training

Post-training, less health professionals reported that they don't have time to routinely assess alcohol consumption or provide advice during pregnancy consultations (pre-training: 11.5%, post-training: 8.2%), however this change was not statistically significant ($p=.150$). There was a significant increase in health professionals' knowledge of who or where to refer patients for additional support related to alcohol consumption during pregnancy (pre-training: 45.0%, post-training: 75.7%, $p<.001$). More health professionals also agreed that they have alcohol and pregnancy resources or educational materials available (pre-training: 40.5%, post-training: 61.5%, $p<.001$).

Pre-training, Post-training to Follow-up survey

Knowledge of where to refer patients for additional support related to alcohol consumption during pregnancy remained elevated at follow-up (70.7%) from pre-training levels (44.1%, $p=.002$). Similarly, there was a significant increase in agreement that health professionals have alcohol and pregnancy resources or educational materials readily available from 36.8% pre-training to 54.4% post-training ($p=.040$). The change from pre-training to follow-up (50.7%) approached statistical significance ($p=.096$).

Beliefs about strength of evidence (pregnancy)

Pre-Post Training & Pre-training, Post-training to Follow-up survey

From pre- to post-training, and across all three survey periods, there were no significant changes observed in beliefs about the strength of evidence regarding alcohol consumption during pregnancy (key statements: the risks of drinking alcohol during pregnancy are exaggerated, there is no evidence that small amounts of alcohol during pregnancy can cause harm, or there is mixed evidence that small amounts of alcohol during pregnancy can cause harm).

Beliefs about capabilities (breastfeeding)

Pre-Post Training

Health professionals who completed the eLearning course reported increased confidence in providing advice about alcohol during breastfeeding (pre-training: 51.7%, post-training: 84.3%, $p<.001$). Secondly, health professionals felt more comfortable initiating conversations about alcohol consumption with breastfeeding patients (pre-training: 65.4%, post-training: 86.3%, $p<.001$). Immediately post-training, health professionals found it less difficult to ask breastfeeding patients about their alcohol consumption (pre-training: 14.1%, post-training: 7.4%, $p=.005$), and their confusion about advice in different situations decreased (pre-training: 24.6%, post-training: 8.6%, $p<.001$).

Pre-training, Post-training to Follow-up survey

The only belief that significantly increased from pre-training to follow-up was health professionals' confidence in providing advice about alcohol during breastfeeding (pre-training: 56.5%, follow-up: 72.6, $p=.046$). While comfort in initiating discussions trended in the right direction (pre-training: 70.1%, follow-up: 83.6%), this increase was not statistically significant.

Beliefs about outcomes of assessing alcohol consumption (breastfeeding)

Pre-Post Training

Following the training, health professionals showed increased belief that providing advice about alcohol during breastfeeding could prompt behaviour change (pre-training: 56.7%, post-

training: 74.2%, *p*<.001), and that brief interventions were effective (pre-training: 56.9% to post-training: 72.9%, *p*<.001). Agreement that most breastfeeding patients would accept support when referred to specialist services increased significantly (pre-training: 35.1%, post-training: 54.9%, *p*<.001).

Beliefs that alcohol consumption during breastfeeding was a low priority for patients remained low (pre-training: 10.8%, post-training: 6.8%) with non-significant changes observed (*p*=.069). Similarly, perceptions that assessing alcohol consumption would negatively affect relationships with patients remained stable (pre-training: 3.5%, post-training: 5.7%, *p*=.175).

Pre-training, Post-training to Follow-up survey

There was an increase in agreement with the belief that providing advice about alcohol during breastfeeding will prompt patients to change their drinking behaviour from pre- to post-training (55.1% to 75.0%; *p*=.016). However, this significant difference was not sustained at follow-up (60.3%). While the belief that brief intervention is effective trended in the right direction (pre-training: 59.4%, follow-up: 68.5%), this increase was not statistically significant.

Environmental context and resources (breastfeeding)

Pre-Post Training

There was a significant increase in health professionals' knowledge of who or where to refer patients for additional support related to alcohol consumption during breastfeeding (pre-training: 42.3%, post-training: 73.7%, *p*<.001). More health professionals also agreed that they have alcohol and breastfeeding resources or educational materials available (pre-training: 38.4%, post-training: 64.4%, *p*<.001). Health professional's agreement that they have more important things to cover in a consultation than breastfeeding patient's drinking habits remained low pre- and post-training (pre-training: 5.8%, post-training: 5.0%, *p*=.651).

Pre-training, Post-training to Follow-up survey

From pre-training to follow-up there was a significant increase in the belief that time constraints impacted health professionals' ability to assess alcohol consumption or provide advice during breastfeeding consultations (pre-training: 4.3%, follow-up: 16.4%, *p*=.029). This suggests that while health professionals are likely trying to implement what they learnt from the training, they are encountering practical challenges, particularly time constraints, when applying this knowledge in real-world settings. Although this concern was held by a minority, it highlights a

potential barrier to the effective implementation of alcohol-related guidance during breastfeeding consultations. Health professionals were significantly more likely to know where to refer patients for support related to alcohol consumption during breastfeeding, with agreement increasing from 41.2% pre-training to 77.3% post-training (p<.001) and remaining high at follow-up (60.3%, p=.024).

Beliefs about strength of evidence (breastfeeding)

Pre-Post Training

There was a significant decrease in the proportion of health professionals' who agreed that there is mixed evidence that small amounts of alcohol during breastfeeding can cause harm from 21.9% pre-training to 13.0% post-training (OR=0.53, 95% CI [0.35, 0.80], p=.002). This suggests that the training effectively clarified the risks associated with alcohol consumption while breastfeeding.

Pre-training, Post-training to Follow-up survey

There were no significant changes observed in beliefs about the strength of evidence for alcohol and breastfeeding from pre-training to follow-up. However, agreement that the risks of drinking alcohol during breastfeeding are exaggerated trended in the right direction (pre-training: 10.0%, follow-up: 4.1%), suggesting that the training may reduce health professionals' misconceptions about the harms associated with alcohol consumption while breastfeeding.

Impact of the eLearning Course on Behaviour and Behavioural Intentions (Evaluation Aim 6)

Assessment of alcohol consumption during pregnancy and provision of advice

Frequency of asking pregnant patients about alcohol use

Pre-Post Training

Prior to completing the eLearning course, only 19.7% of health professionals who care for pregnant women reported routinely asking pregnant women about their alcohol consumption at every visit. After completing the eLearning course, this increased significantly to 79.5% of

health professionals reporting that they intend to ask pregnant women about their alcohol consumption routinely, at every visit (p<.001).

Pre-training, Post-training to Follow-up survey

As above, the training significantly increased the intention of health professionals to routinely ask about alcohol use in pregnancy (pre-training: 73.5%, post-training: 95.5%, p=.002). However, this change was not sustained at follow-up, where the proportion of health professionals routinely asking about alcohol use in pregnancy declined to 66.7%. Therefore, there was no significant change in behaviour from pre-training to follow-up (p=.394).

Method used to assess alcohol pregnant patient's level of alcohol consumption

The eLearning course provides information about the AUDIT-C and recommends its use as a tool to help determine the alcohol consumption levels of pregnant patients. The majority (78.2%) of health professionals who completed post-training survey reported that they intend to use the AUDIT-C to assess alcohol consumption among pregnant women (pre-training: 12.1%, post-training: 78.2%, p<.001).

Frequency of providing advice about alcohol consumption in pregnancy

Pre-Post Training

Completion of the eLearning course significantly increased the proportion of health professionals reporting that they would "*always*" give advice about alcohol to pregnant women (pre-training: 40.7%, post-training: 82.6%, p<.001).

Pre-training, Post-training to Follow-up survey

While the training significantly increased the intention of health professionals to *"always"* give advice about alcohol to pregnant women from pre-training (43.9%) to post-training (83.3%, p<.001), this change was not fully sustained at follow-up (50.7%). The proportion of health professionals who reported *"always"* giving advice declined closer to pre-training levels. Therefore, there was no significant change in behaviour from pre-training to follow-up (p=.472).

Advice provided about alcohol consumption in pregnancy

Pre-Post Training

When asked what advice they would give to pregnant women about alcohol consumption during pregnancy, the most common responses in the pre-training survey were:

- Abstain from alcohol during pregnancy (41.5%)
- There is no safe level of alcohol consumption (37.5%)
- Explain the risks of alcohol consumption for the baby (27.8%)

After the eLearning course, significantly more health professionals reported that they would advise women to abstain from alcohol when trying to conceive (pre-training: 4.3% post-training: 9.2%, *p*=.019) and when breastfeeding (pre-training: 3.3%, post-training: 8.9%, *p*=.006), as well as explain the risks of alcohol consumption for the baby (pre-training: 27.8%, post-training: 38.5%, *p*=.004).

Assessment of alcohol consumption during breastfeeding and provision of advice

Frequency of providing advice about alcohol consumption while breastfeeding

Pre-Post Training

Prior to completing the eLearning course, only 21.4% of health professionals who care for breastfeeding women reported "*always*" providing advice to breastfeeding women about alcohol. Health professionals who completed the eLearning course were significantly more likely to report that they intend to always provide advice about alcohol to breastfeeding patients in the future (post-training: 73.8%, *p*<.001).

Pre-training, Post-training to Follow-up survey

Among health professionals who care for breastfeeding women and completed all three surveys (n=73), the training significantly increased of health professionals' intention to *"always"* give advice about alcohol to breastfeeding women from 17.9% pre-training to 73.3% post-training (*p*<.001). Although the proportion of health professionals who always give advice decreased to 35.6% at follow-up, this was still significantly higher than pre-training levels

(*p*=.010). This suggests that some positive change was maintained over time, though not to the extent seen immediately post-training.

Advice provided about alcohol consumption while breastfeeding

Pre-Post Training

Completion of the eLearning course was significantly associated with:

- Increased odds of advising breastfeeding women that alcohol reaches breast milk within 30-60 minutes (pre-training: 1.0%, post-training: 10.2%, *p*=.001), and
- Decreased odds of providing incorrect advice to breastfeeding women to express and discard breastmilk if they have recently consumed alcohol (pre-training: 8.0%, post-training: 1.8%, *p*=.006).

Considerations for Future Campaign Activity

The evaluation findings suggest several key considerations for future campaign activity. First, the sustained increase in health professionals' confidence in advising on alcohol consumption during pregnancy and breastfeeding indicates that the training had a lasting impact; however, the decline in routine practices, such as asking about alcohol use and providing advice, highlights the need for ongoing education and support to maintain these positive behaviours. Time constraints emerged as a potential barrier, suggesting that future interventions should address practical challenges in applying knowledge in real-world settings. Additionally, while the eLearning course was well-received, incorporating suggested improvements could further enhance its effectiveness. Recommended improvements included more clinical scenarios, detailed evidence-based information, and enhanced mobile-friendliness. To maximise the Campaign's impact, ongoing promotion of the eLearning course, innovative dissemination methods, and continuous support for health professionals are essential for sustaining long-term behaviour change and improving health outcomes related to alcohol consumption during pregnancy and breastfeeding.

Stream 4: Health promotion programs with regional and remote Aboriginal and Torres Strait Islander peoples

For further information please refer to:

Wilson, J., Caruso, J., Miller, C., Bowden, J., Wilson, S. *Evaluation of the Strong Born Campaign and FASD Communications and Engagement Grant for Aboriginal and Torres Strait Islander people in regional and remote communities.* Aboriginal Drug and Alcohol Council (SA) Aboriginal Corporation and South Australian Health and Medical Research Institute. Adelaide, Australia: August 2024.

Campaign Awareness and Reach

There were 23 successful Round 1 FASD Grant applications. Grant recipients received between $10,000 and $60,000 of funding. The total amount of funding that NACCHO provided to ACCHOs in Grant Round 1 was $790,500. Grant-funded organisations were spread across all remoteness areas with 17% from 'medium rural towns' (MM4), 17% from 'small rural towns' (MM5), 35% from 'remote communities' (MM6), and the remaining 30% from 'very remote communities' (MM7).

Successful grant applications were from all states and territories across Australia except the Australian Capital Territory and Tasmania (Figure 5).

- 26% (n=6) were from Western Australia
- 22% (n=5) were from the Northern Territory
- 17% (n=4) were from Queensland
- 13% (n=3) were from New South Wales
- 13% (n=3) were from South Australia
- 9% (n=2) were from Victoria

Figure 5. Number of successful Round 1 FASD Grant applications per state and territory

A range of methods were used by grant-funded ACCHOs to promote the *Strong Born* Campaign including social and digital media, mass-media, promotion and distribution of physical Campaign resources, and community education sessions. Due to the use of social media and traditional media outlets like television, radio broadcast and cinema advertising, the geographic reach of the *Strong Born* Campaign was likely broader than where each ACCHO is located.

Activities developed and/or delivered by ACCHOs who received the FASD Grant (Evaluation Aim 1)

All ACCHOs that received the FASD Grant and completed the post-grant survey (N=13) developed or delivered highly localised, community specific communication materials, community engagement activities, training for multi-disciplinary ACCHO staff, or clinical, social or cultural supports for their communities to increase awareness of FASD and the harms of alcohol consumption while pregnant and/or breastfeeding.

Development and/or delivery of the *Strong Born* Campaign and other communication materials

Almost all grant-funded organisations[9] (92%; n=12/13) used the funding to disseminate and promote the *Strong Born* Campaign. A range of methods were used including social and digital media, mass-media, promotion and distribution of physical Campaign resources, and community education sessions (see Figure 6: highway billboard). Due to the use of social media and traditional media outlets like television, radio broadcast and cinema advertising, the geographic reach of the *Strong Born* Campaign was likely broader than where each ACCHO is located. Promotion of the Campaign through safe spaces like men's, women's, youth and Elders' groups helped with community buy-in and ensured information was delivered in a culturally appropriate and sensitive manner.

[9] Who completed the post-grant survey (n=13)

In addition to promoting *Strong Born* Campaign resources, 62% (n=8/13) of ACCHOs used the grant funding to develop their own communication materials related to FASD and the harms of alcohol consumption during pregnancy and/or breastfeeding. Most ACCHOs took a community-wide approach to emphasise the importance of alcohol-free pregnancies for the whole family and community. Their development was co-designed and community-led to build capacity and help foster community ownership and thus acceptance of the activities. These communication materials reinforced the strengths-based messaging of the *Strong Born* Campaign, building upon existing resources to provide tailored support for their communities.

Translation of *Strong Born* Campaign materials

With grant funding, 54% (n=7/13) of ACCHOs[10] translated *Strong Born* Campaign materials into eight local languages, including: Pitjantjatjara, Pintupi Luritja, Gunditjmara, Martu Wangka, Kriol, Warlpiri, Gurindji and West sie Kriol.

Figure 6. *Strong Born* Campaign billboard

[10] Who completed the post-grant survey (n=13)

Development and/or delivery of community engagement activities

Overall, 62% (n=8/13) of ACCHOs[11] used the FASD Grant to deliver community engagement activities, with most reporting that the FASD Grant allowed them to expand on their regularly occurring community activities and promote the *Strong Born* Campaign at these events. Community engagement activities typically used a community-wide approach and included BBQs, morning teas, community health expos, parenting groups, art projects at local high schools, displaying FASD dolls at events, and integrating education sessions into other existing events. ACCHOs leveraged their strong community relationships to create safe, empowering spaces at events, enhancing FASD awareness and reducing stigma through culturally appropriate, non-judgmental discussions.

Development and/or delivery of clinical, social or cultural supports for women, partners and families who are continuing to consume alcohol while pregnant and/or breastfeeding

While all grant-funded ACCHOs[11] delivered activities in culturally supportive ways, 77% (n=10/13) used the grant funding to deliver specific clinical, social or cultural supports. The FASD Grant enabled ACCHOs to both sustain and improve supports delivered prior to receiving the grant. ACCHOs integrated FASD education and support into already established health promotion mechanisms, provided case management to help community members seek supports, access resources, navigate the health system, and collaborated with other stakeholders to offer comprehensive and coordinated care.

"As part of our engaging and culturally sensitive approach, we have introduced yarning circles specifically focused on FASD. These circles provide a communal space for open and respectful dialogue, fostering a deeper understanding of FASD within the community."

Development and/or delivery of training for multi-disciplinary ACCHO staff

Multi-disciplinary staff training delivered by ACCHOs[11] relating to FASD doubled during the FASD Grant period from 38% (n=5/13) to 77% (n=10/13). This increased the ability of ACCHOs

[11] Who completed the post-grant survey (n=13)

to deliver comprehensive information about FASD and the harms of alcohol consumption during pregnancy and/or breastfeeding. Specifically, the FASD Grant facilitated several internal and external training initiatives, equipping staff to discuss alcohol consumption with women of childbearing age and navigate referral pathways. ACCHOs who participated in training with Dr. Robyn Williams provided positive feedback, noting that it enhanced their knowledge of FASD and support strategies. Staff continue to apply the training in their current practice.

"[Staff] are still the going back to the training and what their learnings were from that training and looking at putting that stuff into practice, which is exactly what we want to see."

Perceptions of the *Strong Born* Campaign (Aim 7)

Feedback on the *Strong Born* Campaign resources were overwhelmingly positive, with ACCHOs commending the Campaign messaging for its clarity, cultural relevance, and empowerment of communities. The Campaign materials were considered culturally appropriate, engaging, visually appealing, and fostered meaningful conversations across diverse community members. Additionally, the community and health professional booklets were found to be helpful and easy to use, though some feedback suggested minor improvements, such as reducing wordiness or adding more clinical information. The t-shirts were also highlighted as a successful tool for community engagement, sparking organic discussions and were proudly worn by community members. The ability to localise Campaign materials were considered effective tools to engage communities. Overall, the *Strong Born* Campaign resources were seen as impactful and well-suited to the needs of grant-funded communities.

"I liked the wording. Calling it strong born is a really positive message, rather [than] fetal alcohol spectrum disorder. It's having strong born babies, you know, strong born community."

"I didn't know whether they would wear them because they were FASD ones. But it's about being 'strong born, we're strong in our community. I still see people in the community proudly wearing those shirts."

Facilitators and barriers to the development and/or delivery of activities (Evaluation Aim 2)

Barriers

The development and delivery of FASD activities by ACCHOs faced several barriers including, the remoteness of ACCHO locations which impacted resource availability, increased costs, and limited access to experts for training. Short grant funding timelines and delays in receiving funding, particularly during the Christmas period further hindered the delivery of activities. ACCHOs also struggled with limited staff capacity and availability to support community members with expert advice and clinical knowledge. Additionally, community perceptions of FASD resulted in some community members being initially hesitant to engage with Campaign messaging. Despite these challenges, ACCHOs utilised technology, navigated cultural sensitivities, and maintained ongoing communication with NACCHO to overcome these barriers.

"Notoriously difficult to achieve engagement with activities/programs here - transport and access is an ongoing barrier."

"[A barrier] for me was finding something really creative and different to be able to capture women's attention. I'm, you know, trying to get them interested in something that nobody wants to talk about."

Facilitators

A major facilitator of the success of the *Strong Born* Campaign and the FASD Grant was the flexibility in how grant funding could be utilised, allowing ACCHOs to deliver activities appropriate for their communities' needs. This flexibility enabled creative approaches, such as bush trips and separate yarning circles for different groups, ensuring cultural relevance and engagement. Leveraging existing relationships and trust within communities, particularly with Elders, was crucial in delivering culturally appropriate and impactful activities. Collaboration among ACCHO staff, who were passionate and supportive of the Campaign, further strengthened the dissemination of Campaign messages. The number of *Strong Born* resources provided by NACCHO, combined with the ability to include local ambassadors, champions and community members in the resources, enhanced community connection and engagement with

the Campaign. Additionally, offering refreshments at events, particularly through community BBQs, proved effective in encouraging attendance and fostering open discussions about FASD.

"I recruited the Elders and the Elders recruited everybody else for me. I actually was expecting to reach, you know, between 25% and 50% of people. But I got about 80% buy in. So, it makes a huge difference in the way we've been able to conduct things."

ACCHOs' plans to sustain activities beyond the FASD Grant funding (Evaluation Aim 3)

All ACCHOs that delivered activities related to FASD and the harms of alcohol consumption while pregnant and/or breastfeeding with grant funding, plan to sustain these efforts beyond the grant funding period. Some ACCHOs aim to do this through the integration of activities into their broader health promotion strategies, enabling them to create impactful, potentially sustainable initiatives that align with their commitment to improving community health. Future plans to deliver FASD activities beyond the grant funding period include promotion of *Strong Born* Campaign materials through community events, clinics, and social media, as well as ongoing use of translated resources. ACCHOs emphasised the importance of maintaining community engagement through culturally sensitive activities, such as yarning circles and partnerships with local schools. However, continued funding is essential for the ongoing development and delivery of these initiatives, particularly for training of multidisciplinary staff and providing social, clinical, and cultural supports for women and families affected by alcohol consumption during pregnancy. Despite this, ACCHOs recognise the importance of addressing FASD in their community, and with further support are committed to sustaining these efforts to improve community health and awareness of FASD.

"By seamlessly integrating health education into our broader health promotion strategy, we aim to create a sustainable and impactful approach to disseminating vital health information. This comprehensive methodology not only aligns with our commitment to community well-being but also ensures that our initiatives resonate effectively with diverse audiences."

ACCHOs' experience with the FASD Grant and funding provider (Evaluation Aim 4)

All grant-funded ACCHOs who were interviewed reported a positive experience with the FASD Grant and NACCHO as the funding provider, highlighting the simplicity, clarity, and adaptability of the grant application and reporting process. ACCHOs reported that the flexibility to develop activities and resources that were specific for their region contributed to the efficacy and community engagement of the *Strong Born* Campaign. ACCHOs appreciated NACCHO's understanding of their internal structures and pressures, which streamlined the funding process and minimised additional workload. While one ACCHO suggested improvements for the reporting process to more accurately reflect the potential time required, overall, the FASD Grant was seen as instrumental for ACCHOs to promote the *Strong Born* Campaign within their communities, educate staff, and increase community awareness of FASD and the harms of alcohol consumption during pregnancy and/or breastfeeding.

"NACCHO reporting processes are usually much more simplified than other contracts that we receive. Which makes it so simple as they sort of really get it from the perspective of what we're trying to deliver. I think it was also really clear as well as to what the expectations were as part of the grant."

Impact of the FASD Grant on ACCHOs who have different baseline experience, knowledge and motivation to engage in FASD prevention activities (Evaluation Aim 5)

The FASD Grant had a positive impact on all ACCHOs who had varying levels of baseline experience delivering FASD prevention activities within their communities. ACCHOs who had no prior experience delivering FASD prevention activities focused on raising community awareness and staff training, using the FASD Grant to initiate essential conversations about FASD for the first time. ACCHOs with moderate to high pre-grant experience with developing and delivering FASD prevention activities were in a position that they could utilise the grant funding to leverage their existing knowledge to deliver more comprehensive communication resources and community engagement activities, therefore strengthening the impact of the *Strong Born* Campaign. Despite differences in baseline experience, all ACCHOs reported that

the grant successfully increased both staff and community awareness of FASD. They emphasised the need for continued funding and efforts to sustain and expand these activities, believing that further initiatives could reduce the incidence of FASD, and better support affected families.

"The campaign allowed for the space to start conversations surrounding healthy pregnancy and lifestyle choice, and further referral for those identified in need of increased support during pregnancy or planning stages."

Interventions or activities undertaken by NACCHO members not funded by the FASD Grant (Evaluation Aim 6)

One NACCHO member who applied for but did not receive the FASD Grant funding (for reasons unknown), agreed to participate in an interview as a comparison to assess their level of engagement with FASD activities without funding. The non-funded ACCHO had no previous experience with developing or delivering FASD information in their community. They expressed that receiving the grant funding would have been highly beneficial to raise awareness and initiate community discussions about FASD and the harms of alcohol consumption while pregnant and/or breastfeeding. Due to a lack of resources, they had not been able to deliver any FASD-related education or staff training in their community. The organisation emphasised the significant social and financial burden of FASD on their community and expressed a strong desire to engage in health promotion and education on the issue if future funding is available. This highlights the importance of extending the *Strong Born* grant funding and materials to include all ACCHOs, including non-NACCHO members. By doing so, more organisations would be able to implement Campaign messages effectively, thereby raising awareness and educating their communities about FASD and the risks associated with alcohol consumption during pregnancy and/or breastfeeding.

"Lack of funding. But I would think a lot of our community wouldn't even know what FASD was. It'd be mentioned in our alcohol and other drugs or by our [social and emotional wellbeing] team, but we've not done any specific health promotion in that area [FASD]."

Considerations for Future Campaign Activity

Interviewed ACCHOs provided several key recommendations for future FASD prevention and support efforts. They identified the need for workforce development, including ongoing training and upskilling of local staff to reduce reliance on external specialists and to ensure comprehensive, culturally appropriate care. Increasing FASD-specific funding to allow for dedicated staff positions and expanding access to FASD support services were also highlighted as key strategies. ACCHOs stressed the importance of continuous, community-wide FASD messaging, with a particular focus on male education and involvement. Engaging local government in FASD prevention and advocating for policy changes were identified as essential for a holistic approach. For successful engagement with Aboriginal and Torres Strait Islander communities, future campaigns should build on the strengths of the *Strong Born* Campaign by being culturally appropriate, community-driven, and localised. Additionally, there must be a national commitment to addressing the social determinants of health and systemic issues impacting these communities, as meaningful change requires more than just health promotion, it is necessary to address the root causes of alcohol consumption during pregnancy.

"There may be a lot of ACCHOs that wouldn't even applied for this [grant] because $60,000 was the max and you know if you can't pay, you can't use that for staff, then a lot of services wouldn't have applied because you know you're having to fund staff to be able to do it."

"So, thinking about the whole social determinants of health, how that affects, and colonisation. It would take more than just you, the campaign and even us educating clinicians, cause that's never going to solve why people choose to drink in the first place."

Appendix A: Evaluation Reports & Presentations

This appendix presents a list of reports and presentations completed during the evaluation. For further information on evaluation methods and results, please refer to the individual reports listed below.

Reports:

Stream 1: General Public Awareness Campaign

1. Caruso, J., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Pre-Campaign National Survey Topline Results.** South Australian Health and Medical Research Institute. Adelaide, Australia: December 2021.

2. Caruso, J., Miller, C, Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Topline Results: Within-Campaign Tracking (Report 1: November to December 2021).** South Australian Health and Medical Research Institute. Adelaide, Australia: February 2022.

3. Caruso, J., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Awareness of campaign messages by geographical location.** South Australian Health and Medical Research Institute. Adelaide, Australia: May 2022.

4. Caruso, J., Miller, C, Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Topline Results: Within-Campaign Tracking (Report 2: May to June 2022).** South Australian Health and Medical Research Institute. Adelaide, Australia: August 2022.

5. Caruso, J., Miller, C, Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Social marketing campaign evaluation for the period November 2021 to July 2022.** South Australian Health and Medical Research Institute. Adelaide, Australia: November 2022.

6. Caruso, J., Miller, C, Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Topline Results: Within-Campaign Tracking (Report 3: September to October 2022).** South Australian Health and Medical Research Institute. Adelaide, Australia: November 2022.

7. Caruso, J., Miller, C, Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Topline Results: Within-Campaign Tracking (Report 4: February to March 2023).** South Australian Health and Medical Research Institute. Adelaide, Australia: May 2023.

8. Caruso, J., Ellis, R., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Preliminary impact of the Every Moment Matters Campaign on knowledge and behavioural intentions.** South Australian Health and Medical Research Institute. Adelaide, Australia: May 2023.

9. Caruso, J., Muminovic, A., Miller, C, Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Topline Results: Within-Campaign Tracking (Report 5: October to December 2023).** South Australian Health and Medical Research Institute. Adelaide, Australia: February 2024.

10. Caruso, J., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Impact of the Every Moment Matters Campaign in South Australia.** South Australian Health and Medical Research Institute. Adelaide, Australia: February 2024.

11. Caruso, J., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Post-Campaign National Survey Topline Results.** South Australian Health and Medical Research Institute. Adelaide, Australia: April 2024.

Stream 2: Support for priority groups including women at higher risk of alcohol-exposed pregnancies

1. Caruso, J., Muminovic, A., Norris, C., Miller, C., Bowden, J. **Evaluation of alcohol and pregnancy resources for priority groups: an online survey of consumer perceptions.** South Australian Health and Medical Research Institute. Adelaide, Australia: August 2024.

Stream 3: Information and online training for health professionals

1. Caruso, J., Miller, C., Bowden, J. **Preliminary evaluation of an eLearning course for health professionals designed to support alcohol-free pregnancies and safe breastfeeding. For the period 30 September 2022 to 21 October 2023.** South Australian Health and Medical Research Institute. Adelaide, Australia: June 2023.

2. Caruso, J., Muminovic, A., Miller, C., Bowden, J. **Preliminary evaluation of an eLearning course for health professionals designed to support alcohol-free pregnancies and safe breastfeeding. For the period 30 September 2022 to 21 October 2023.** South Australian Health and Medical Research Institute. Adelaide, Australia: November 2023.

3. Caruso, J., Muminovic, A., Miller, C., Bowden, J. **Evaluation of an eLearning course for health professionals designed to support alcohol-free pregnancies and safe breastfeeding: September 2022 to April 2024.** South Australian Health and Medical Research Institute. Adelaide, Australia: May 2024.

4. Caruso, J., Muminovic, A., Miller, C., Bowden, J. **Evaluation of an eLearning course for health professionals designed to support alcohol-free pregnancies and safe breastfeeding: September 2022 to July 2024.** South Australian Health and Medical Research Institute. Adelaide, Australia: August 2024.

Stream 4: Health promotion programs with regional and remote Aboriginal and Torres Strait Islander peoples

1. Wilson, J., Caruso, J., Miller, C., Bowden, J., Wilson, S. **Evaluation of the Strong Born Campaign and FASD Communications and Engagement Grant for Aboriginal and Torres Strait Islander people in regional and remote communities.** Aboriginal Drug and Alcohol Council (SA) Aboriginal Corporation and South Australian Health and Medical Research Institute. Adelaide, Australia: August 2024.

All Campaign Streams

1. Caruso, J., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Evaluation Plan.** South Australian Health and Medical Research Institute. Adelaide, Australia: November 2021.

2. Caruso, J., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Progress Report 1 (June 2021 – February 2022).** South Australian Health and Medical Research Institute. Adelaide, Australia: February 2022.

3. Caruso, J., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Progress Report 2 (February 2022 – August 2022).** South Australian Health and Medical Research Institute. Adelaide, Australia: August 2022.

4. Caruso, J., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Progress Report 3 (August 2022 – January 2023).** South Australian Health and Medical Research Institute. Adelaide, Australia: January 2023.

5. Caruso, J., Ellis, R., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Progress Report 4 (January 2023 – May 2023).** South Australian Health and Medical Research Institute. Adelaide, Australia: June 2023.

6. Caruso, J., Norris, C., Muminovic, A., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Progress Report 5 (July 2023 – November 2023).** South Australian Health and Medical Research Institute. Adelaide, Australia: December 2023.

7. Caruso, J., Norris, C., Muminovic, A., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Progress Report 6 (October 2023 – April 2024).** South Australian Health and Medical Research Institute. Adelaide, Australia: May 2024.

8. Caruso, J., Norris, C., Muminovic, A., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Considerations for future campaign activity.** South Australian Health and Medical Research Institute. Adelaide, Australia: August 2024.

9. Caruso, J., Miller, C., Bowden, J. National Awareness Campaign on Alcohol, Pregnancy, Breastfeeding and Fetal Alcohol Spectrum Disorder (FASD): **Progress Report 7 (1 May 2024 – 30 August 2024).** South Australian Health and Medical Research Institute. Adelaide, Australia: August 2024.

Presentations

Conference Presentations

1. Caruso, J., Miller, C., Crabb, S., Wilson, S., Middleton, P., Room, R., Medway, P., Robertson, S., & Bowden, J. **Are Australians aware of the risks of drinking during pregnancy and breastfeeding? Results of a baseline survey prior to a national campaign.** Drug and alcohol review. Australasian Professional Society on Alcohol & other Drugs (APSAD) Conference. Darwin, Australia: 2022
2. Caruso, J., Miller, C., Crabb, S., Wilson, S., Middleton, P., Room, R., Medway, P., Robertson, S., Bonevski, B. & Bowden, J. **Australians pre-campaign awareness of the risks of prenatal alcohol exposure and behaviour.** Public Health Association of Australia, Preventive Health Conference. Adelaide, Australia: 2023
3. Caruso, J., Miller, C., Crabb, S., Wilson, S., Middleton, P., Room, R., Medway, P., Robertson, S., Bonevski, B. & Bowden, J. **Mid-Campaign Evaluation of the National 'Every Moment Matters' Alcohol and Pregnancy Campaign.** Public Health Association of Australia, Preventive Health Conference. Adelaide, Australia: 2023.
4. Caruso, J., Miller, C., Crabb, S., Wilson, S., Middleton, P., Room, R., Medway, P., Robertson, S., Bonevski, B. & Bowden, J. **Empowering Change: Evaluating the 'Every Moment Matters' National Awareness Campaign on Alcohol and Pregnancy.** SAHMRI Showcase. Adelaide, Australia: 2023.
5. Bowden, J., Caruso, J., Miller, C., Crabb, S., Wilson, S., Middleton, P., Room, R., Medway, P., Robertson, S. & Bonevski, B. **Unveiling the impact of the national 'Every Moment Matters' campaign on knowledge and alcohol consumption during pregnancy.** Drug and Alcohol Nurses of Australasia Conference. Adelaide, Australia: 2024.
6. Caruso, J., Miller, C., Crabb, S., Wilson, S., Middleton, P., Room, R., Medway, P., Robertson, S., Bonevski, B. & Bowden, J. **Unveiling the impact of the national 'Every Moment Matters' campaign on knowledge and alcohol consumption during pregnancy.** Accepted for presentation at Australasian Professional Society on Alcohol & other Drugs (APSAD) Conference. Canberra, Australia: 2024.

Presentations at Steering Committee Meetings

1. Bowden, J. **Campaign Evaluation Update and Key Results.** Invited presentation at the 'FASD – National awareness campaign for pregnancy and breastfeeding' steering committee hosted by FARE. March 2022. [online]

2. Bowden, J. **Campaign Evaluation Update and Key Results.** Invited presentation at the 'FASD – National awareness campaign for pregnancy and breastfeeding' steering committee hosted by FARE. August 2022. [online]

3. Bowden, J. **Campaign Evaluation Update and Key Results.** Invited presentation at the 'FASD – National awareness campaign for pregnancy and breastfeeding' steering committee hosted by FARE. February 2023. [online]

4. Bowden, J. **Campaign Evaluation Update and Key Results.** Invited presentation at the 'FASD – National awareness campaign for pregnancy and breastfeeding' steering committee hosted by FARE. October 2023. [online]

5. Bowden, J. **Campaign Evaluation Key Results.** Invited presentation at the 'FASD – National awareness campaign for pregnancy and breastfeeding' steering committee hosted by FARE. August 2023. [online]

Other Presentations

1. Bowden, J. ***Every Moment Matters*** **Campaign Evaluation.** Invited presentation at the 'Behind the scenes of Every Moment Matters' webinar hosted by FARE. December 2022. [open to general public, online]

2. Caruso, J. **Evaluation of a national campaign on alcohol, pregnancy, breastfeeding and fetal alcohol spectrum disorder (FASD).** Invited presentation for the Australian Government Department of Health and Aged Care. August 2023 [government audience, closed, online]

3. Caruso, J. **Evaluating a national campaign on alcohol, pregnancy, breastfeeding and fetal alcohol spectrum disorder (FASD).** Invited presentation for The University of Adelaide, Master of Public Health, Public Health Evaluation and Economics. October 2022 [university audience, closed, in person and online]

4. Caruso, J. **Evaluating a national campaign on alcohol, pregnancy, breastfeeding and fetal alcohol spectrum disorder (FASD).** Invited presentation for The University of Adelaide, Master of Public Health, Public Health Evaluation and Economics. October 2023 [university audience, closed, in person and online]

Reference List

1. O'Leary C. Fetal alcohol syndrome: a literature review prepared for the National Expert Advisory Committee on Alcohol. 2002.

2. Khoury JE, Milligan K, Girard TA. Executive functioning in children and adolescents prenatally exposed to alcohol: A meta-analytic review. Neuropsychology review. 2015;25(2):149-70.

3. Patra J, Bakker R, Irving H, Jaddoe VW, Malini S, Rehm J. Dose-response relationship between alcohol consumption before and during pregnancy and the risks of low birthweight, preterm birth and small for gestational age (SGA)-a systematic review and meta-analyses. Bjog. 2011;118(12):1411-21.

4. Albertsen K, Andersen AM, Olsen J, Grønbaek M. Alcohol consumption during pregnancy and the risk of preterm delivery. Am J Epidemiol. 2004;159(2):155-61.

5. Jaddoe VW, Bakker R, Hofman A, Mackenbach JP, Moll HA, Steegers EA, et al. Moderate alcohol consumption during pregnancy and the risk of low birth weight and preterm birth. The generation R study. Ann Epidemiol. 2007;17(10):834-40.

6. Food Regulation Standing Committee. Decision Regulation Impact Statement: Pregnancy Warning Labels on Packaged Alcoholic Beverages. 2018. p. 26.

7. National Health and Medical Research Council. Australian Guidelines to Reduce Health Risks from Drinking Alcohol. Canberra: Commonwealth of Australia; 2020.

8. Australian Institute of Health and Welfare. National Drug Strategy Household Survey 2019. Drug Statistics series no 32 PHE 270. Canberra: AIHW; 2020.

9. Australian Government Department of Health and Aged Care. Modified Monash Model [Internet]. Canberra: Australian Government Department of Health and Aged Care; 2023 [cited 2024 Aug 30]. Available from: https://www.health.gov.au/topics/rural-health-workforce/classifications/mmm.

10. Helitzer D, Hollis C, Cotner J, Oestreicher N. Health literacy demands of written health information materials: an assessment of cervical cancer prevention materials. Cancer Control. 2009;16(1):70-8.

11. IBM. Generalized estimating equations Armonk, NY: IBM; 2023 [cited 2024 Aug 30]. Available from: https://www.ibm.com/docs/en/spss-statistics/saas?topic=statistics-generalized-estimating-equations.

12. Australian Government National Indigenous Agency. Indigenous advancement strategy evaluation framework. Commonwealth of Australia; 2018.

13. Dart J. Place-based evaluation framework: A national guide for evaluation of place-based approaches in Australia. Commissioned by the Queensland Government Department of Communities, Disability Services and Seniors (DCDSS), the Australian Government Department of Social Services (DSS), and Logan Together; 2018.

14. Cane J, O'Connor D, Michie S. Validation of the theoretical domains framework for use in behaviour change and implementation research. Implementation Science. 2012;7(1):37.