YOUNG MOTHER

"A friend of mine, she fell pregnant quite young. So she was maybe 19, and her doctor said there was no reason for her to stop drinking. I think that's the first thing I kind of threw into my mind. Is it alright to continue drinking a little bit? I didn't. But is it ok? A little bit ok? Or is it none?"

WA Health AUDIT-C
Learning Guide

HEALTH PROFESSIONAL

"They usually do disclose it, because they are worried about the baby. They genuinely want to do the right thing by their baby. So they will usually slide a question in somehow that makes you think 'oh'!"

TELETHON KIDS INSTITUTE
Discover. Prevent. Cure.

Government of Western Australia
Department of Health

WA Health AUDIT-C Learning Guide

CONTENTS

ACKNOWLEDGEMENTS

The WA Health AUDIT-C Learning Guide draws on a range of high quality education and informational resources developed nationally and internationally by those concerned with raising awareness of alcohol, pregnancy and FASD. Rather than replicating work, existing resources are recommended, with links provided for ease of access to these.

Suggested citation:

Reibel T and Giglia R. (2016) WA Health AUDIT-C Learning Guide. Telethon Kids Institute, University of Western Australia, under contract with the WA Department

Acknowledgements

The WA Health AUDIT-C Learning Guide was developed as part of the Midwives and Women AUDIT-C Intervention Project conducted by the Alcohol and Pregnancy & FASD team at the Telethon Kids Institute, under contract with the Department of Health WA. A Steering Group and Expert Group provided expert advice on the preparation of the Learning Guide.

Steering Group

Prof. Carol Bower, Senior Principal Research Fellow, Alcohol, Pregnancy and FASD Research

Roslyn Giglia, Senior Research Fellow, Co-Head of Alcohol, Pregnancy and FASD Research

Heather Jones, Program Manager, Alcohol, Pregnancy and FASD Research

Tracy Reibel, Senior Research Fellow, Alcohol, Pregnancy and FASD Research

Expert Group

Jess Clement, Consumer Representative

Linda Sinclair, Acting Midwifery Director, Statewide Obstetric Services Unit, WA Department of Health

Tracy Martin, Principal Midwifery Advisor, Nursing and Midwifery Office, WA Department of Health

Kate Reynolds, Midwifery Advisor, WA Country Health Service

Belinda Sexton, Clinical Midwife, Armadale Health Service

Sadie Geraghty, Nursing and Midwifery, Edith Cowan University

The Expert Group also acknowledges the advice provided by:

Janice Butt, Womens and Newborns Health Service, WA Department of Health

Samantha Davies, Womens and Newborns Health Service, WA Department of Health

Evelyn Muggli, Senior Research Officer, Murdoch Children's Research Institute

Cate Nagle, Associate Professor, Nursing and Midwifery, Deakin University

Fiona Imlach, Health Promotion Agency, University of Otago, New Zealand

Christine Rogan, Alcohol Healthwatch, New Zealand

Participants

Acknowledgement and appreciation also to the women who participated in focus groups and interviews and to the midwives employed by the Armadale Health Service who contributed their time to participate in interviews and group discussions.

Additional acknowledgements

In the preparation of the WA Health AUDIT-C Learning Guide, the authors specifically acknowledge:

Huthwaite, M & Rogan, C (2012) *The Pregnancy and Alcohol Cessation Toolkit: An Online Education Resource for Health Professionals.*

Alcohol Healthwatch Auckland, NZ
http://www.ahw.org.nz/

National Drug and Alcohol Research Centre (n.d.) *Supporting Pregnant Women who use Alcohol or Other Drugs: A guide for Primary Health Care Professionals.* University of NSW, Australia

https://ndarc.med.unsw.edu.au/resource/supporting-pregnant-women-who-use-alcohol-or-other-drugs-guide-primary-health-care

Foundation for Alcohol Research and Education *Women Want to Know* Resources and e-learning Continuing Professional Development Education for Midwives 2014

http://fare.org.au/women-want-to-know/

What role do health professionals have in FASD prevention?

Widespread societal acceptability of alcohol use[1] contributes to women's confusion[2] about whether drinking alcohol when they are pregnant is okay. It is vital all health professionals address common misconceptions about alcohol and its role in Fetal Alcohol Spectrum Disorder (FASD) – neurocognitive, developmental and physiological injuries – explicitly caused by prenatal alcohol exposure.

Promoting the **National Health and Medical Research Council's Alcohol Guideline 4*[3]** as part of routine maternal care practice is one tool-in-the- box towards better overall education, information and advice for the whole community.

*** Maternal alcohol consumption can harm the developing fetus or breastfeeding baby.**

A. For women who are pregnant or planning a pregnancy, not drinking is the safest option.

B. For women who are breastfeeding, not drinking is the safest option.

NHMRC 2009

Don't women already know about avoiding alcohol during pregnancy?

Women broadly understand that alcohol use in pregnancy is not good for the development of a baby but do not know the full extent of the effects of alcohol use across the whole time of pregnancy or while breastfeeding. Even when women have heard about FASD, a common perception is *'this happens to other people's babies because they abuse alcohol when they are pregnant'.*

Research with Western Australian women shows that occasional alcohol use during pregnancy may be ignored by women as inconsequential.[4] This view, combined with 20 per cent of women who continue to drink while pregnant[5], a lack of understanding of standard drink measures, misinformation, and inconsistent education and advice from health professionals'[6 7] results in widespread ambiguity about the impacts of drinking alcohol during pregnancy.

Why do health professionals need an AUDIT-C Guide?

The AUDIT-C Learning Guide sets out the reasons for undertaking routine alcohol risk assessment, handy hints for using the AUDIT-C screening tool, tips for providing brief educational interventions, including links to instructional videos, and a range of web-based resources.
The Learning Guide also includes printable resources to assist health professionals' to routinely **ask, assess and advise** pregnant women about alcohol.

Women have confirmed the *acceptability of the AUDIT-C screening process* and the screening questions as *fair and reasonable*; and have consistently reported wanting to know more details about the impact on the baby's development from alcohol use in pregnancy.[10]

The WA Health AUDIT-C Learning Guide is a self-directed professional development package which includes four evidence-based modules. The modules are suitable for inclusion in CPD activity as self-directed learning, and therefore able to be used for registration purposes with APHRA.

For example, see:
Aboriginal and Torres Strait Islander Health Practice Board of Australia
https://www.atsihealthpracticeboard.gov.au/codes-guidelines/faq/continuing-professional-development.aspx

Nursing and Midwifery Board of Australia
http://www.nursingmidwiferyboard.gov.au/Registration-Standards/Continuing-professional-development.aspx

Royal Australian College of General Practitioners
https://www.racgp.org.au/education/professional-development/qi-cpd/self-directed-learning

The AUDIT-C Learning Guide

It is the responsibility of health care professionals to ensure their knowledge and practice is up-to-date by making use of formal and self-directed continuing professional development (CPD) opportunities.

To improve health professionals' confidence and ability with risk screening and application of the AUDIT-C tool, this learning guide assists with self-directed learning[11] on Fetal Alcohol Spectrum Disorder, understanding and using AUDIT-C, and providing pregnancy (and breastfeeding) brief interventions related to alcohol use.

Fetal Alcohol Spectrum Disorder is avoidable. Reducing the prevalence of alcohol exposed pregnancies requires long term targeted and consistent public health education and advice by all health professionals to all childbearing women, their families and communities[12].

The learning guide begins with a self-assessment exercise to assist individuals identify their professional practice knowledge gaps. The exercise is based on questions raised in the course of local research with health professionals and women, and, relevant components of the National Women-Held Pregnancy Record (NWHPR).

The learning guide addresses four topics: 1] Prenatal Alcohol Exposure and FASD; 2] Using AUDIT-C; 3] Brief Intervention; and, 4] Alcohol and Breastfeeding.

Each topic includes:

- → Core facts with supporting references.
- → Recommended reading and/or web-based instructional videos demonstrating communication strategies.
- → A list of web-based resources, including online CPD education.

Current Practice Self-Assessment Exercise

The self-assessment exercise is for your own use. The questions focus on **YOUR** knowledge and practice of assessing alcohol use during pregnancy and how **YOU** inform and educate women. The exercise assists you to reflect on and identify learning areas you may want to revise. A guide to the most relevant module/s related to learning needs are provided at the end of the exercise.

Thinking about my practice when I speak to pregnant women during an appointment or first antenatal visit, do I:		
Ask every woman about their alcohol use in the three months before pregnancy?	Yes	No
Ask every woman about their current alcohol use?	Yes	No
Use the AUDIT-C questions to explore a woman's alcohol use?	Yes	No
Use visual cues of standard drinks when exploring a woman's alcohol use?	Yes	No
Routinely give women advice and education about alcohol use in pregnancy?	Yes	No

When seeing women for follow up antenatal visits, do I:		
Routinely ask women if they are occasionally using alcohol while pregnant?	Yes	No
Repeat the AUDIT-C questions to explore women's alcohol use?	Yes	No
Reinforce advice about alcohol use in pregnancy?	Yes	No
If a woman is planning breastfeeding, do I discuss alcohol and breastfeeding?	Yes	No
Provide printed information about alcohol use and breastfeeding?	Yes	No

Thinking about assessing risk of harm, discussing alcohol use and providing education on the impact of alcohol in pregnancy:		
Am I familiar with standard drink measures and guiding women to accurately calculate their alcohol use?	Yes, I use a standard drinks guide	No, I tend to guess
Am I confident addressing women's concerns about alcohol use prior to pregnancy recognition?	Yes, it's an opportunity to reassure women	No, I don't want to raise concerns
Am I confident discussing with women the impact of alcohol on a developing baby across the whole of pregnancy?	Yes, it's an opportunity to educate women	No, I don't know enough about the impacts
Am I confident in my knowledge of FASD and can I answer women's questions about this?	Yes, not enough women know about FASD	No, I don't know enough about FASD
Am I confident using the AUDIT-C questions and interpreting the AUDIT-C maternal risk scores?	Yes, it's a good way to talk about risk	No, I don't think women understand the questions
Am I confident interpreting the AUDIT-C fetal risk scores and discussing these with women?	Yes, it makes the issue more real	No, it just makes women anxious

Thinking about your knowledge of alcohol use in pregnancy or when breastfeeding, consider the following:			
I believe the following amount is considered safe in pregnancy:	No alcohol at all	<2 standard drinks/day	<6 standard drinks/week
I believe the following amount is considered safe while breastfeeding:	No alcohol at all	<2 standard drinks/day	<6 standard drinks/week

Use the AUDIT-C scoring table (see medical software packages or page 19 of the National Women Held Pregnancy Record) to work out the risk profile for <2 standard drinks per day and <6 standard drinks per week to assess how these consumption amounts fit with the AUDIT-C risk scores and maternal and fetal risk profiles.

*No alcohol at all is the response most related to the NHMRC recommendation – "no alcohol in pregnancy, or while breastfeeding, is the safest option".

When reflecting on the exercise, consider whether your responses to the issues raised are based on evidence or on your personally held views? The following may help you assess your current practice and topics for further education to update your knowledge.

Is your knowledge of the impact of alcohol use in pregnancy and while breastfeeding current and evidence based?

e.g., are you familiar with the 2009 NHMRC Alcohol Guidelines? Have you read journal articles about alcohol and pregnancy to know the most recent evidence? Do you routinely and regularly discuss with and advise women about alcohol use in pregnancy and while breastfeeding?

Refer to **Modules 1, 2** and **4** for further information

Are you confident using AUDIT-C to assess women's alcohol use and interpret scores in relation to maternal and fetal risk?

For example, have you read the WA FASD Model of Care? Do you routinely use the AUDIT-C questions to assess women's alcohol consumption? Do you discuss her score and what risk this reflects – including when this is zero? Do you provide encouragement to continue maintaining healthy, low risk behaviours around alcohol? Have you considered other factors which may prompt alcohol use, such as an elevated or high EPDS score?
Or, if a woman has disclosed domestic violence issues?

Refer to **Module 2** for further information

Do you consistently provide alcohol related advice and education to all women regardless of their individual AUDIT-C risk score, their cultural origins or ethnicity, or their education.

For example, do you routinely provide education about the impact of alcohol use even if women are at low risk? Do you have printed resources available for women? Do you know where to source these?

Refer to **Modules 2, 3** and **Web-Based Resources** for further information

Are you familiar with brief interventions and confident using these in your everyday practice?

For example, have you read journal articles addressing the effective use of brief interventions in clinical practice whether or not these relate to alcohol use? Or, have you attended a workshop or in-service activity, or viewed instructional videos demonstrating brief interventions?

Refer to **Module 3** and **Web-Based Resources** for further information

Learning Module 1: Prenatal Alcohol Exposure and Fetal Alcohol Spectrum Disorder

This module informs an understanding of FASD by presenting core facts relevant to understanding the interaction of prenatal alcohol exposure (PAE), fetal development consequences, potential outcomes in a newborn, the Australian FASD diagnostic criteria, and, recommended readings.

1.1 How does alcohol affect the Fetus?[13][14]

- Alcohol is a teratogen – a substance able to disrupt the normal development of a fetus.
- A fetus exposed to alcohol is at risk of a range of adverse effects to brain and organ development.
- Alcohol passes freely through the placenta and reaches concentrations in the fetus as high as those in the mother.
- The fetus has only a very limited ability to metabolise alcohol.
- Miscarriage, stillbirth and prematurity are among the possible consequences of PAE[15].

1.2 Evidence on Dose, Timing Risk[16]

- The timing, frequency and quantity of PAE are linked to the pattern and severity of fetal outcomes. (Refer to the Fetal Developmental chart. See page 31)
- Brain growth and development occur throughout pregnancy. As such adverse cognitive, behavioural and neurodevelopmental outcomes may result from alcohol exposure **at any time during pregnancy** and may occur in the absence of facial anomalies or structural central nervous system abnormalities.
- It is likely that multiple mechanisms are involved in damage to the brain from PAE and **no 'safe' threshold for alcohol consumption during pregnancy has been established.**
- The level of risk to the fetus from PAE is highest when there is high, frequent maternal alcohol intake.
- The level of risk for the fetus is **likely to be low** if a woman has consumed only small amounts of alcohol (such as one or two drinks per week) before she knew she was pregnant, or during pregnancy.
- Both maternal and fetal characteristics are associated with variability in alcohol related outcomes[17][18].

1.3 Consequences for infant[19] and

- In the infant, PAE effects may be brain damage, birth defects, growth restriction, and developmental delay.
- Neonatal characteristics correlated with PAE include increased hand to mouth activity, a strong MORO (startle) reflex, hypotonia (reduced muscle tone) and a delayed stepping reflex threshold.
- Insecure attachment and parenting difficulties and irritability (negative affectivity) of the infant are often reported with suspected or confirmed PAE.
- While not obvious in the newborn, social and behavioural problems associated with PAE may become more apparent as the child grows.
- In the child, PAE may result in cognitive, social, emotional and behavioural deficits and while some effects can be mediated by early intervention, nonetheless these are life-long[20].
- These problems can be misdiagnosed until the fact of PAE is known and considered in the clinical environment for its part in a FASD diagnosis.

1.4 Fetal Alcohol Spectrum Disorder Diagnosis[21]

- The diagnostic categories for FASD are:
  - FASD with three sentinel facial features (confirmed or unknown prenatal alcohol exposure)
  - FASD with less than three sentinel facial features (confirmed prenatal alcohol exposure)
- There are a range of diagnostic criteria included in the assessment of an individual with suspected FASD. (Refer over page to Table 1, Diagnostic criteria and categories for Fetal Alcohol Spectrum Disorder (FASD) from the Australian Guide to Diagnosis of FASD.)
- Characteristic sentinel facial features may not be evident at birth, tend to normalise in adolescence and may be difficult to detect, or, resemble those associated with other syndromes.
- Birth defects of the heart, kidneys, and musculoskeletal system, and structural CNS abnormalities have been commonly described in FASD and are considered during medical assessment.
- Diagnosis involves excluding or considering differential diagnoses that may be genetic, environmental or traumatic in origin.
- In infancy, diagnosis may involve a paediatrician or child development specialist documenting global developmental delay.
- Accurate differential diagnosis is best achieved by a multidisciplinary, clinical team trained in FASD diagnostic protocols.
- Confirmation of PAE during the diagnostic process may be by maternal recollection. A more accurate confirmation of PAE can be located in maternal medical records when alcohol risk screening has been conducted and an AUDIT-C (or other) score/s has been recorded.
- FASD is permanent and lifelong, and includes physical, mental, behavioural and learning disabilities.
- FASD is the leading preventable cause of intellectual disability in the western world[22].
- Depending on the severity, individuals with FASD may require ongoing supports and services across the course of their lives.

No 'safe' threshold for alcohol consumption during pregnancy has been established.

KEY POINTS:

FASD is the result of prenatal alcohol exposure and there is no known safe threshold for alcohol use at any time in pregnancy.

FASD is permanent and lifelong, and includes physical, mental, behavioural and learning disabilities of variable severity, some of which may not emerge or be apparent until childhood or adolescence.

FASD may not be evident at birth and varies according to maternal and fetal characteristics, timing and dose of prenatal alcohol exposure.

FASD is the leading preventable cause of intellectual disability in the western world.

MODULE 1 RECOMMENDED READING

FASD Hub
Australian Guide to the diagnosis of FASD eLearning Module 3
https://www.fasdhub.org.au/fasd-information/assessment-and-diagnosis/guide-to-diagnosis/e-learning-modules/

Department of Health, Western Australia
Fetal Alcohol Spectrum Disorder Model of Care. *Perth: Health Networks Branch, Department of Health, Western Australia; 2010.*
https://ww2.health.wa.gov.au/~/media/Files/Corporate/general%20documents/Health%20Networks/Child%20and%20Youth/FASD-Model-of-Care-Implementation-forum-report.pdf

An Introduction of Fetal Alcohol Spectrum Disorder (FASD) Updated e-learning
https://aodelearning.mhc.wa.gov.au/course/index.php?categoryid=6

Australian Guide to the Diagnosis of FASD (2016)

*Table 1 Diagnostic criteria and categories for Fetal Alcohol Spectrum Disorder (FASD)

FETAL ALCOHOL SPECTRUM DISORDER		
DIAGNOSTIC CRITERIA	DIAGNOSTIC CATEGORIES	
	FASD with 3 Sentinel Facial Features	FASD with < 3 Sentinel Facial Features
Prenatal alcohol exposure	Confirmed or unknown	Confirmed
Neurodevelopmental domains → Brain structure/Neurology → Motor skills → Cognition → Language → Academic Achievement → Memory → Attention → Executive Function, including impulse control and hyperactivity → Affect Regulation → Adaptive Behaviour, Social Skills or Social Communication	Severe impairment in at least 3 neurodevelopmental domains	Severe impairment in at least 3 neurodevelopmental domains
Sentinel facial features → Short palpebral fissure → Smooth philtrum → Thin upperlip	Presence of 3 sentinel facial features	Presence of 0, 1 or 2 sentinel facial features

KEY COMPONENTS OF THE FASD DIAGNOSTIC ASSESSMENT INCLUDE DOCUMENTATION OF:

History
Presenting concerns, obstetric, developmental, medical, mental health, behavioural, social;

Birth defects
Dysmorphic facial features, other major and minor birth defects;

Adverse prenatal and postnatal exposures
Including alcohol;

Known medical conditions
Including genetic syndromes and other disorders;

Growth

Infants and young children under 6 years of age and older adolescents and adults warrant special consideration during the FASD diagnostic assessment process. (16) There are also circumstances where an individual may be considered to be 'at risk' of FASD. These special clinical considerations are discussed in detail in Section B: Neurodevelopmental Impairment, Australian Guide to Diagnosis of FASD (2016).

*Reproduced from: Australian Guide to Diagnosis of Fetal Alcohol Spectrum Disorder (2016)

The FASD Hub Australia has been funded by the Australian Government Department of Health and has an extensive array of information, resources, research and publications, including a section for health professionals

https://www.fasdhub.org.au/

Plain Language Information For Pregnant Women

THE BEST ADVICE TO REMEMBER

There is **no safe amount or type of alcohol to drink** during pregnancy.

There is **no safe time to drink** alcohol during pregnancy.

No alcohol in pregnancy is the **safest choice** for you and your baby.

No alcohol while breastfeeding is the **safest choice** for you and your baby.

- When a woman drinks alcohol it passes straight through the placenta to the growing baby in the same concentrations – it is not diluted when it reaches the baby.
- A baby in the womb is not able to breakdown alcohol in the same way as the mother's body is able to.
- Alcohol is one of the teratogens, which means it is one of the substances which interrupt normal baby development.
- Because each woman and each baby is different, it is not possible to know how much alcohol during pregnancy will affect the growing baby.
- A baby's brain grows and develops across the whole time of pregnancy so drinking alcohol can harm a baby's brain development at any time during pregnancy.
- Binge drinking (5 or more standard drinks of alcohol) on an occasion during pregnancy may cause physical damage to the developing baby.
- A baby exposed to alcohol during pregnancy may develop Fetal Alcohol Spectrum Disorder (FASD) but this may not be noticed in a newly born baby.
- FASD is permanent and lifelong, and includes physical, mental, behavioural and learning disabilities.
- The risk to a developing baby is likely to be low if a woman has consumed only one or two standard drinks per week before she knew she was pregnant or during pregnancy.
- Alcohol passes through maternal blood to breastmilk. If planning breastfeeding, there are simple things to do to prevent alcohol reaching baby through breastmilk. Information is available from a midwife or doctor or at the Australian Breastfeeding Association.

If you have concerns or questions about alcohol use when you are pregnant or while breastfeeding, talk to your midwife or doctor or contact the Australian Breastfeeding Association helpline 1800 686 268 or see www.breastfeeding.asn.au/breastfeeding-helpline

Learning Guide Module 2: Understanding & Using AUDIT-C

Routinely screening all pregnant women with a standardised screening tool normalises the practice and reduces the possibility of pre-existing perceptions such as a woman's ethnic or cultural group, education or socio-economic status determining whether or not she is asked about her alcohol (or other drug) use[23 24]. It is estimated that one in five[25] women will continue to drink alcohol, even if only occasionally, after knowing they are pregnant.

2.1 Some guiding factors for exploring alcohol use in a prenatal visit[26]

- A non-judgemental approach is important when taking a history of alcohol consumption in pregnancy[27].
- A pregnancy may be unplanned and not confirmed for some time, during which time alcohol may have been consumed. This circumstance requires sensitivity.
- Even if a woman has made lifestyle changes once the pregnancy was confirmed, including reducing or stopping alcohol consumption, a risk assessment of pre-pregnancy and early pregnancy alcohol use always remains highly relevant[28 29].
- **A woman may be unaware** that not drinking during pregnancy is the 'safest' option and she may have been given incorrect advice by health professionals, by family members or by friends.
- Women may be more likely to drink if their partner and/or other household members also drink. Understanding a woman's relationship context and living arrangements is an opportunity to explore alcohol use in her home or social environment.

2.2. AUDIT-C specificity and accuracy[31]

- AUDIT-C (Alcohol Use Disorders Identification Test – Consumption) is a three-item (3 questions) pregnancy specific standardised method for assessing how much and how often a pregnant woman is drinking alcohol.
- AUDIT-C is based on self-reported consumption and does not identify alcohol dependence.
- Women have described the three AUDIT-C questions as fair and reasonable[32].

2.3 Risk assessment and AUDIT-C[33]

- Risk assessment starts at a booking or first antenatal visit when a pregnant woman's personal and medical history is documented. Audit-C is repeated one to two additional times during pregnancy, as a woman's circumstances may have changed.
- Routine risk assessment for alcohol, tobacco, EPDS, and domestic violence requires non-judgemental approaches and taking account of each woman's psychosocial, cultural and familial circumstances.
- Women's pre-pregnancy and current drinking behaviours and attitudes to alcohol use in pregnancy are the strongest predictors of continued alcohol consumption in pregnancy.
- Asking women about birthdays, wedding or other celebrations prompts them to remember occasional drinking which may otherwise be forgotten.

5 out of 10 pregnancies are unplanned. Strong associations between **binge drinking** and **unplanned pregnancies.**

47% of women consumed alcohol before knowing they were pregnant.

20% of women continued drinking alcohol after knowing they were pregnant.

Starting a conversation about alcohol use[34]

"Was your pregnancy planned or unplanned?"

"When did you realise you're pregnant?"

"How have you changed your drinking since your pregnancy was confirmed?"

"Have there been any special occasions (e.g. a wedding) up to this point of your pregnancy when you drank alcohol?"

MIDWIFE

"I think generally most midwives don't probe...you ask the question and you expect their answer to be honest and you move on to all of the thousands of other things you have to cover."

OLDER MOTHER

"Maybe it should be more of entering into a discussion like, 'let's try and work out how much you do drink on those days."

HEALTH PROFESSIONAL

"All the book-ins I have done so far, the women do not drink. So I have been able to say 'no longer drinking alcohol'. And then later on, if I see them, then I say 'so still no consumption of alcohol, no smoking?' and you just tick just tick the box

YOUNG MOTHER

"I think they looked at me and made the call that she didn't think that I would have taken drugs or drunk alcohol and it wasn't a very open field for me to say I had."

2.4 Tips for using AUDIT-C effectively

- Avoid using closed questions requiring only yes/no answers when conducting risk screening. Closed questions don't encourage discussion and issues may be glossed over in the process of *"a hundred and one million questions we ask women"*.
- Getting good health behaviours information from women in the antenatal setting is crucial. Using open questions combined with active (or attentive) listening assists information gathering. Open questions begin with words such as: *what, why, how, describe.* Give a woman time to answer – try not to rush or assume what her response will be.
- AUDIT-C questions are open questions (since becoming pregnant, or since your last appointment):
  - How often have you had a drink containing alcohol?
  - How many standard drinks containing alcohol do you have in a day when you are drinking?
  - How often do you have five or more standard drinks in one sitting?
- Open questions are an opportunity for women to ask questions about alcohol use and for health professionals to respond with information and advice relevant to the individual woman's circumstances (a brief intervention).

2.5 Standard Drinks and AUDIT-C

- Before starting the AUDIT-C questions, definitions of standard drinks should be explained using a Standard Drinks Guide to provide clear visual cues to women (see page 30).
- A standard drink is defined as containing 10g of alcohol (equivalent to 12.5mL of pure alcohol) and the total drink volume varies depending on the type of alcohol[35].
- A serving of alcohol frequently differs from a 'standard drink', often being larger. For example, for table wine, a standard drink corresponds to 100mL of wine, whereas a typical serve may be 150mL.
- Five or more standard drinks (consumption of 50+g of alcohol) on an occasion are sometimes referred to as a binge.

OLDER MOTHER

"I don't know anyone who actually pours one standard drink when they pour their own wine glass."

2.6 AUDIT-C as process

- At a first antenatal or booking visit calculate a woman's **pre-pregnancy** alcohol use history **AND current** use by asking all three AUDIT-C questions. Record both scores in the NWHPR AUDIT-C table, even if a total score = 0.

					Score			
Q: Since becoming pregnant/last appointment, how often have you had a drink containing alcohol?					Date: Pre-Pregnancy	Date: Gestation	Date: Gestation	Date: Gestation
0 Never	1 Monthly or less	2 2-4 times a month	3 2-3 times a week	4 4+ a week	0	0		
Q: How many standard drinks containing alcohol do you have in a day when you are drinking?								
0 1or 2	1 3 or 4	2 5 or 6	3 7-9	4 10+	1	0		
Q: How often do you have five or more standard drinks in one sitting?								
0 Never	1 Monthly or less	2 Monthly	3 Weekly	4 Daily / almost daily	0	0		
Total Score:					**1**	**0**		

First Visit AUDIT-C scores

- A total AUDIT-C score of 0 at a first visit does not indicate that a woman won't consume alcohol further along in her pregnancy. AUDIT-C risk screening should be completed again in the same pregnancy as **a woman's circumstances may change over time.**
- These changes may be related to domestic violence or a high EPDS score, both strong indicators for repeating AUDIT-C risk assessment, or for other reasons[36].
  Always: Ask, Assess, Advise
- Repeating the AUDIT-C at two other visits (for example, the next visit and a 32-34 week visit) captures any changes in a woman's circumstances and opportunities to record additional AUDIT-C scores.
- The NWHPR includes two Level of Risk tables (maternal and fetal risk) and brief intervention guidance.
- **Maternal risk** (low, medium or high) is associated with an alcohol consumption **total score** - provide feedback and use guidance from the maternal and fetal risk tables relevant to the total AUDIT-C score.

Level of Risk

Low risk of harm to women (total score 0-3)	Medium risk of harm to women (total score 4-7)	High risk of harm to women (total score 8+)
Actions:		
a) Discuss score and provide feedback for low risk drinking for women. b) Assist by providing alcohol harm prevention and reduction resources. c) Offer to arrange a follow up session if needed.	a) Discuss score and give feedback for risky drinking. b) Discuss positives and negatives of taking action. c) Discuss tips, strategies and plan for taking action. d) Assist by providing alcohol harm prevention and reduction resources. e) Offer to arrange referral and follow-up session if needed.	a) Discuss score and provide feedback for high risk drinking. **WARNING:** People who score in the high risk range (8+) should not be told to stop drinking alcohol or cut down without seeing a doctor. b) Discuss the positives and negatives for taking action. c) Provide contact information for alcohol and other drug services, ADIS and a doctor. d) Assist by providing alcohol harm prevention and reduction resources. e) Offer to arrange referral and a follow-up session.

- → **Fetal risk** is associated with lower total AUDIT-C scores than for maternal risk.
  - A total AUDIT-C score of 0 **= no risk of fetal harm.**
  - A total AUDIT-C score of 1-4 **= risk of fetal harm.**
  - A total AUDIT-C score of >5 **= higher risk of fetal harm.**
- → Provide feedback and use guidance from the fetal risk table relevant to the total score (brief intervention).
- → All women with any history of alcohol use should always be advised there is a risk of fetal harm associated with any alcohol use and "not drinking alcohol during pregnancy is the safest choice".
- → Confirmed high risk exposures[37] to the fetus can be considered to include, at any time during pregnancy:
  - → AUDIT-C total score of 5 or more.
  - → Reported consumption of 5 or more standard drinks on one occasion (e.g. AUDIT-C question 3).
- → **Pregnant women may ignore** infrequent/**'special occasion' alcohol use**[38] as unimportant if they are not specifically asked about this.
- → **An occasion of binge drinking** (5 or more standard drinks in one sitting – Q3 of AUDIT-C) indicates an immediate brief intervention and a follow up AUDIT-C assessment at the next visit.
- → A brief intervention at a first visit may start with asking a woman how much she knows about alcohol use in pregnancy. This leads to discussing the potential consequences of both regular and/or occasional alcohol consumption[39]. (see Module 3).
- → If a pregnant woman is assessed with a high risk score (Maternal Risk 8+) and/or other indicators of chronic or persistent high risk alcohol use, specialist intervention is essential to safely manage reduction or cessation of alcohol. If this circumstance arises, a woman should be referred to an appropriate alcohol and other drug (AOD) service or model of care which includes addiction and other relevant specialists (for example, Women's and Newborns Drug and Alcohol Service (WANDAS).

Lower risk of fetal harm (total score <1)	Risk of fetal harm (total score 1-4)	Higher risk of fetal harm (total score >5)
Key messages:		
• Advise that the safest choice is not to drink alcohol during pregnancy. • Advise that a score of 0 indicates no risk of alcohol-related harm to the developing fetus. • Commend women who have not consumed alcohol since becoming pregnant. • Advise women who have consumed small amounts (e.g. one or two standard drinks) of alcohol prior to or during pregnancy, that the risk to the developing fetus is low. • Advise that the risk to the developing fetus is influenced by maternal and fetal characteristics and is difficult to predict. • Advise that the risk of harm to the developing fetus increases with increasing the amount and frequency of alcohol consumption. • Offer to arrange a follow-up session if needed.	• Advise that the safest choice is not to drink alcohol during pregnancy. • Advise that a score of 0 indicates no risk of alcohol-related harm to the developing fetus. • Commend women who have not consumed alcohol since becoming pregnant. • Advise women who have consumed small amounts (e.g. one or two standard drinks) of alcohol prior to or during pregnancy, that the risk to the developing fetus is low. • Advise that the risk to the developing fetus is influenced by maternal and fetal characteristics and is difficult to predict. • Advise that the risk of harm to the developing fetus increases with increasing the amount and frequency of alcohol consumption. • Offer to arrange a follow-up session if needed.	• Advise that the safest choice is not to drink alcohol during pregnancy. • Advise that a score of 0 indicates no risk of alcohol-related harm to the developing fetus. • Commend women who have not consumed alcohol since becoming pregnant. • Advise women who have consumed small amounts (e.g. one or two standard drinks) of alcohol prior to or during pregnancy, that the risk to the developing fetus is low. • Advise that the risk to the developing fetus is influenced by maternal and fetal characteristics and is difficult to predict. • Advise that the risk of harm to the developing fetus increases with increasing the amount and frequency of alcohol consumption. • Offer to arrange a follow-up session if needed.

	Score			
	Date:	Date:	Date:	Date:
	Pre-Pregnancy	Gestation	Gestation	Gestation
Q: Since becoming pregnant/last appointment, how often have you had a drink containing alcohol?				
0 Never; 1 Monthly or less; 2 2-4 times a month; 3 2-3 times a week; 4 4+ a week				
Q: How many standard drinks containing alcohol do you have in a day when you are drinking?				
0 1or 2; 1 3 or 4; 2 5 or 6; 3 7-9; 4 10+				
Q: How often do you have five or more standard drinks in one sitting?				
0 Never; 1 Monthly or less; 2 Monthly; 3 Weekly; 4 Daily / almost daily				
Total Score:				

Always document an AUDIT-C score in the pregnancy medical record even if the total score = 0 (low risk)

MODULE 2 RECOMMENDED READING

The three articles recommended here provide supporting evidence for routinely using AUDIT-C with all women. All articles are available in open access format via the links provided.

Crawford-Williams F, Steen M, Esterman A, Fielder A, Mikocka-Walus A

"My midwife said that having a glass of red wine was actually better for the baby": a focus group study of women and their partner's knowledge and experiences relating to alcohol consumption in pregnancy BMC Pregnancy and Childbirth 2015 15:79
http://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-015-0506-3

From the Abstract

Background: While it is well established that alcohol can cross the placenta to the foetus and can affect an infant's development, many women continue to drink during pregnancy. For this reason it is important to determine what information is being provided, what information may be missing, and the preferred sources of information on this issue. In order to improve prevention strategies, we sought to understand the knowledge and experiences of pregnant women and their partners regarding the effects of alcohol consumption during pregnancy.

Conclusions: The findings of this research provide important insights in to the relationship between pregnant women, their partners, and their healthcare providers. Several recommendations can be made on the basis of these findings. Firstly, public health messages and educational materials need to provide clear and consistent information about the effects of alcohol consumption on the developing baby. Additionally, more thorough and consistent routine enquiry for alcohol consumption in pregnant women needs to occur. Finally, it is important to ensure ongoing education for health professionals on the issue of alcohol consumption during pregnancy.

Skagerstrom J, Chang G, and Nilsen P.

Predictors of Drinking During Pregnancy: A systematic review. J of Women's Health 2011 20(6):901-913
www.ncbi.nlm.nih.gov/pmc/articles/PMC3159119/

From the Abstract

Background: Many pregnant women continue to drink alcohol despite clinical recommendations and public health campaigns about the risks associated with alcohol use during pregnancy. This review examines the predictors of prenatal alcohol use, with the long-term goal of developing more effective preventive efforts.

Conclusions: Women's pre-pregnancy alcohol consumption (i.e., quantity and frequency of typical drinking) and exposure to abuse or violence were consistently associated with drinking during pregnancy. Antenatal care providers should assess these factors for improved detection of women at risk for alcohol-exposed pregnancies.

Jones SC, Telenta J, Shorten A, Johnson K.

Midwives and pregnant women talk about alcohol: what advice do we give and what do they receive? Midwifery 2011 27:489-496
https://www.ncbi.nlm.nih.gov/pubmed/20471731

From the Abstract

Background: the Australian National Health and Medical Research Council (NHMRC) recently revised its guidelines for alcohol consumption during pregnancy and breastfeeding, moving from a recommendation of minimising intake to one of abstinence. Women are potentially exposed to a variety of messages about alcohol and pregnancy, including from the media and social contacts, and are likely to see midwives as the source of expert advice in understanding these contradictory messages.

Key conclusions: both groups expressed comfort with the idea of discussing alcohol consumption, but lacked knowledge of the risk and recommendation, and it appears that this opportunity to provide women with information is underutilised.

Implications for practice: there is a need to provide midwives with accurate information about the risks of alcohol consumption during pregnancy and effective communication tools to encourage them to discuss the risks and recommendations with their patients.

Learning Module 3: Brief Intervention

Best clinical practice involves effective communication as a means of building relationships with women. Good communication involves active listening and open-questions which provide opportunities for women to raise concerns or issues. Brief interventions are a means to communicate consistent informative education to women. Brief interventions are a normal part of clinical practice.

This module considers the common elements which underpin brief interventions.

Health professionals have indicated they require knowledge of brief interventions as these relate to discussing alcohol use.

Routine use of brief interventions following AUDIT-C risk screening is a means to improve women's knowledge of the impact of alcohol use and to motivate women to change behaviour which supports a healthy pregnancy.

The literature refers to brief interventions (BI) and motivational interviewing (MI) as suitable for clinical practice. While based on similar principles to support women in their decision making, BI most easily slots into busy antenatal visits and is recommended as a responsive AUDIT-C action, particularly for low to moderate risk alcohol use.

3.1 Overview of Brief Intervention and Motivational Interviewing

- Brief Intervention (BI) and Motivational Interviewing (MI) are most often set apart in terms of being either a secondary intervention (BI) or primary intervention (MI). In the literature the terms are sometimes interchanged as there are many similarities between BI and MI.
- Both approaches are effective and relevant for discussing alcohol use with women and guiding their decision-making.
- **BI is most often a very brief dialogue with a woman incorporated as part of a routine antenatal visit, and provides relevant information related to risk screening outcomes. It may be repeated in subsequent visits when screening assessment reoccurs.**
- MI is more often a primary intervention with a core purpose of assisting a woman to modify harmful behaviour/s. MI comprises either one intensive session, or several focussed sessions. MI is most suited to models of care where the primary carer is well known to the woman, thus providing sustained opportunities to revise progress and discuss change strategies.
- BI and MI draw on **relational and conversational engagement** targeted at supporting a woman to initiate and sustain behavioural change to achieve healthy outcomes for herself and her baby.
- Both methods rely on the use of non-judgemental, informative, goal-setting, and reinforcing behaviour change strategies to promote women's self-efficacy in making positive lifestyle choices for their own and their baby's benefit.
- BI and MI do not take the place of specialist intervention when pregnant women present with very high-risk health behaviours, such as chronic or persistently high levels of alcohol or other drug use. In these circumstances there is an expectation that a woman will be referred to an appropriate alcohol and other drug (AOD) service or model of care which includes addiction and/or other relevant specialists (for example, Women's and Newborns Drug and Alcohol Service (WANDAS).

3.2 Brief Intervention and AUDIT-C

- Following AUDIT-C risk assessment, BI is the most suitable means of promoting consistent health messages and reinforcing general alcohol education relevant to pregnancy and breastfeeding.
- BI is effective and efficient in the antenatal setting.
- BI is acceptable to women and is highly suited to midwifery led or other primary care encounters with women.

RANDOMISED CONTROL TRIAL

A frequently cited Randomised Controlled Trial (RCT) to test the effectiveness of a brief intervention in the reduction of prenatal alcohol consumption by women when a partner is included showed that fewer than 20 per cent of participants were abstinent at study enrolment, averaging 1.5 drinks per episode.

Factors associated with higher pregnancy alcohol use after randomisation included: more years of education, extent of previous alcohol consumption, and temptation to drink in social situations. Pregnancy alcohol use declined in both the treatment and control groups after study enrolment. Pregnant women with the highest levels of alcohol use reduced their drinking most after a brief intervention that included their partners.[39]

3.3 Evidence informing BI for alcohol use

- Routine risk screening for alcohol use followed by BI is positively associated with reductions in prenatal alcohol use[40].
- While risk screening in and of itself motivates reductions or cessation of alcohol use, there are clear advantages associated with providing BI to improve women's health literacy[41].
- Women have favourably identified BI as preferable to risk screening alone.
- Brief intervention is an opportunity **to educate women why not drinking alcohol** during pregnancy or while breastfeeding is the safest choice.
- Commencing from a proposition that **BI is woman centred**, it is not formulaic, but relies on a suite of approaches varying in duration, content, and target. The FRAMES brief intervention for risky or harmful alcohol use is a helpful guide to using BI in the antenatal setting[42].

FRAMES, COMMON ELEMENTS OF BRIEF INTERVENTIONS:

Feedback
Providing relevant feedback to the woman regarding both maternal and fetal risks associated with her alcohol consumption;

Responsibility
An emphasis on the woman's personal responsibility and choice to reduce her alcohol use;

Advice
The provision of explicit advice to the woman about changing harmful or hazardous alcohol behaviour;

Menu of change strategies
Providing the woman with a range of alternative strategies and self- help options so she is able to find an approach that suits her own situation;

Empathy
An empathic, warm and reflective approach adopted by the health professional;

Self-efficacy
Reinforcement and enhancement of the woman's self-efficacy.

Frames Adapted from Bien, T., Miller, W.R., and Tonigan, J.S., *Brief interventions for alcohol problems: a review*. Addiction, 1993. 88(3): p. 315-33

3.4 Components of Brief Intervention

- BI start with open questions exploring the positive and negative aspects of a particular behaviour. This includes identifying strategies for undertaking change and the woman's motivation and confidence in making these changes.
- BI promotes feedback aimed at increasing awareness of the negative impacts of consuming alcohol during pregnancy.
- BI includes advice focused on difficult situations and strategies to avoid or reduce alcohol consumption.
- BI incorporates the offer of assistance to help a woman formulate goals in order to stop or reduce her alcohol consumption.
- BI (and MI) enable individuals to put forward strategies to allow them to change their own behaviour by examining the positives and negatives, reducing ambivalence and understanding that behaviour change comes from the individuals themselves rather than strategies being imposed by others.

3.5 Understanding how to implement brief education about alcohol use

Asking each woman about her alcohol use is important as **women expect all important issues** to be raised by a health professional.

The verbatim extracts included here are from the **Women Want to Know**[43] e-learning education modules. The FARE modules are freely available to midwives, general practitioners and obstetricians through professional bodies. Midwives do not need to be a member of the ACM to access the online modules. For other health professions, check with other professional bodies about your eligibility to access the modules.

See the Web-Based Resources section for the link to other e-learning modules relevant to brief interventions.

Always consider using language appropriate to the individual woman. For example, while English is not always a first language, many culturally and linguistically diverse women have a good command of spoken and written English, while others don't and may require an interpreter. All women require information about alcohol use in pregnancy. Do not assume that a woman's cultural, ethnic or religious background influences her use of alcohol. If a health professional does not ask questions, a woman may not know about the harmful effects of alcohol use during pregnancy or breastfeeding

Some pregnancy and alcohol information is available in other languages. See the Web-Based Resources section for the link to these translated resources.

Consider asking a woman if she understands the information being discussed or if she needs this to be explained differently.

→ Providing brochures and other printed materials allows women to reflect on information following a visit.

These examples, and the one over the page, are reproduced from the Foundation for Alcohol Research and Education *Women Want to Know* e-learning modules for midwives. See the **Web-Based Resources** section for details on how to access the e-learning modules.

MEET MADDY: ASSESSED – LOW RISK OF HARM (AUDIT-C SCORE OF 0-3)

Maddy is having her second baby and you are asking her about her alcohol intake in the context of a broader health assessment.

"So you have said that you have not drunk any alcohol at all during your pregnancy and didn't with your last baby either. Congratulations. That is great. It can be very difficult in a culture like Australia where we love to celebrate life with a drink. Have you found it tricky in social situations where others are drinking? It is difficult when you work long hours in a high-pressure job."

"Just to let you know that there is a brochure in your booking pack about alcohol in pregnancy. You can keep it for yourself and your family as it has other information in it such as how much is in a standard drink."

"You are also welcome to pass it onto a friend who is thinking about having a baby. Have you any other questions about alcohol in pregnancy or after you have had the baby?"

MEET MAI: ASSESSED – MEDIUM RISK OF HARM (AUDIT-C SCORE 4-7)

Mai is an executive director in her early 40's having her first baby.

"You have said that you find it difficult to come home from a busy day at work and not have just 1 bottle of cider while you cook dinner. I hear you. It is quite a common thing to do in our society and hard to give up when you fall pregnant."

"I want to make you aware that the Australian alcohol guideline is that no alcohol during pregnancy is the safest option."

"Can we talk about the triggers that make it difficult for you not to drink? Are there things that you can change to make it easier to resist?"

"What sort of non-alcoholic drinks do you like, that you might drink, say on a hot summer day? Great – Italian mineral water is a perfect alternative and it even has bubbles, like cider. There are some quite tasty recipes for simple drinks using healthy juices on the web too. Have you seen any of those? I have some good websites if you would like to have a look."

MEET CASSIE: ASSESSED – HIGH RISK OF HARM (AUDIT-C SCORE 8+)

At commencement of care, Cassie is having her fourth baby and scores a 9 when completing the AUDIT-C assessment.

"You mentioned that you and your partner split early on in the pregnancy and things have been difficult for you trying to manage the kids and work. Especially now that your mum has gone back to work and can't help you as much."

"Can we talk about ways we can assist you to work through some of these stresses? It is understandable that you are feeling the pressure at the moment…"

"How do you feel about your drinking? Were you aware that you were drinking at a level that puts the health of you and the baby at high risk?"

"How confident are you that if you got a bit more support you might be able to cut down your drinking? We can also arrange for you to talk to a specialist from the alcoholservice. We usually work with them when we are trying to assist in a stressful situation like yours."

"We can help to put some supports in place to help you manage the kids and the money and hopefully to get some 'me' time."

"Would you be OK about me contacting this service on your behalf and for them to call you? It would also be a good idea for you to see our local obstetrician so that we can monitor the baby's growth while we work through helping with you with everything. Are you OK about that?"

3.6 Strategies women use to avoid alcohol in pregnancy

→ These strategies are drawn from consultations with WA women of varying ages and places of residence.

→ In these consultations, women discussed societal pressures and practices and gave examples of the way they manage alcohol avoidance both in early pregnancy, before they have told people about their pregnancy, and throughout pregnancy.

→ These examples for avoiding alcohol in social settings may be useful for health professionals to share with women.

STRATEGIES WOMEN HAVE USED TO AVOID ALCOHOL USE DURING PREGNANCY

"I did things where I've accepted a glass of wine, especially my first pregnancy when I was working full time I used to have to go to a lot of networking functions. I just used to accept the first glass of wine but then just hold it the whole time."

"My friend was a bridesmaid. She didn't want the bride to know and she didn't want to drink at all. She came up with the concoction with her dad, who said 'why don't you get a little hip-flask with lime cordial in it and every time you get a white wine just tip it out and fill it up with water and some lime cordial and it will look like white wine."

"When I was pregnant with her we would always go, down to the pub with our friends and everyone would be drinking and I would drink water by the bucket load because you felt like you always had to have a drink."

"I bought non-alcoholic beer which tastes like normal beer."

"I used to ask for a vodka soda without the vodka…"

MODULE 3 RECOMMENDED READING

The National Drug and Alcohol Research Council (NDARC) have produced

Supporting Pregnant Women who use Alcohol or Other Drugs: a guide for primary health care professionals.

The guide also includes links to a range of other resources including those for brief intervention, Indigenous specific and other relevant topics.

https://ndarc.med.unsw.edu.au/resource/supporting-pregnant-women-who-use-alcohol-or-other-drugs-guide-primary-health-care

Canada Northwest FASD Research Network

Taking a relational approach: the importance of timely and supportive connections for women 2010

www.canfasd.ca/wp-content/uploads/2013/02/RelationalApproach_March_2010.pdf

Raymond J, Clements V

Motivational interviewing for midwives: creating 'enabling' conversations with women. MIDIRS Midwifery Digest 2013 23(4):435-440

https://www.psn.org.au/documents/psn-publications/128-motivational-interviewing-for-midwives-creating-enabling-conversations-with-women/file

MODULE 3 INSTRUCTIONAL VIDEOS FEATURING BRIEF INTERVENTION

The ***Women Want to Know*** e-learning course includes videos demonstrating different techniques for providing an alcohol intervention for pregnant women. The course is free for members and non-members of the Australian College of Midwives, RANZCOG and members of RACGP, with CPD points attained on completion. Use either link below to access the course:

www.alcohol.gov.au/internet/alcohol/publishing.nsf/Content/wwtk

Brief Interventions for a Healthy Lifestyle: Maternity and Child Health

Introduces the concept of brief intervention and provides guidance on how to conduct brief interventions with patients to support healthy lifestyle choices that limit substance use, encourage healthy eating and incorporate physical activity into daily life. The course is provided by the Queensland Government via the Clinical Skills Development Service, is free and available to people outside of Queensland Health.

https://central.csds.qld.edu.au/central/courses/226

There is an excellent video produced by the British Colombia Centre for Excellence in Women's Health demonstrating a midwife/woman consultation which leads to a discussion about alcohol and pregnancy.

www.youtube.com/watch?v=ZDuG8e4bhOA&index=20&list=PL9np1_amUlZ4wz3xde2sYBn1gh6F-2xZB

Learning Module 4: Alcohol and Breastfeeding

This module provides essential guidance for health professionals to consider when discussing breastfeeding and alcohol use. It begins with the NHMRC Guideline 4B, which sets out the advice recommended for women who indicate they will breastfeed. As the abstinence message of Guideline 4B may discourage breastfeeding, targeted advice is provided alongside the recommendation to ensure women are fully informed of the consequences of alcohol use when they are breastfeeding as well as advice on how to manage such consumption, if they choose to drink alcohol.

ADVICE FOR BREASTFEEDING MOTHERS

Not drinking is the safest option.

Women should avoid alcohol in the first month after delivery until breastfeeding is well established.

After that:

- alcohol intake should be limited to no more than two standard drinks a day
- women should avoid drinking immediately before breastfeeding
- women who wish to drink alcohol should consider expressing milk in advance.

Breastfeeding

There is a lack of good quality evidence from human studies regarding the effects of maternal alcohol consumption on lactation, infant behaviour and development. As a result, as for pregnancy, it was not possible to set a 'safe' or 'no-risk' drinking level for breastfeeding women. Guideline 4B therefore takes a conservative approach and advises not drinking as the safest option.

It is acknowledged that an abstinence message may discourage breastfeeding. For this reason, although women who are breastfeeding are advised that 'not drinking alcohol is the safest option', practical guidance regarding minimising the risk to lactation and to the breastfed infant is provided for mothers who choose to drink.

An app which helps women calculate when it is safe to breastfeed after consuming alcohol is a helpful resource to refer breastfeeding women to use (see the next page)

Maternal alcohol consumption can harm the developing fetus or breastfeeding baby.

Guideline 4B: For women who are breastfeeding, not drinking is thesafest option.

The advice on this page references NHMRC Guidelines. See the **Web-Based Resources** section for further details.

4.1 Evidence relevant to breastfeeding and alcohol use

Women who consumed alcohol at more than two standard drinks per day were almost twice as likely to discontinue breastfeeding earlier (HR 1.9, 95% CI 1.1, 3.0) than women who drink at low risk levels, even after adjustment for potential confounders.

4.2 Maternal drinker profile Perth Infant Feeding Study II

- Women who consumed alcohol during pregnancy were significantly more likely to consume alcohol during lactation.
- Alcohol consumption was also associated with attendance at antenatal classes.
- A greater proportion of women who drank alcohol and breastfed were from a higher income family.
- Women least likely to consume alcohol in the postpartum period were of Asian origin, and more likely to be self-employed, unemployed, receiving a pension, studying or carrying out home duties.

4.3 Breastmilk and alcohol

- Alcohol passes from maternal blood into the breast milk.
- Alcohol enters breast milk by passive diffusion and reflects levels in maternal blood within 30–60 minutes after ingestion.
- Factors that influence the blood alcohol concentration of the mother include:
  - bodyweight;
  - amount of adipose tissue;
  - stomach contents at the time of alcohol ingestion;
  - rate at which alcohol beverages are consumed; and
  - the amount and strength of alcohol in the drink.

4.4 Alcohol and lactation

- Diminished let-down reflex through the inhibition of oxytocin.
  - Results in decreased breastmilk volume and a hungry, cranky baby.
  - Exposure to small amounts of alcohol in breastmilk can disrupt the infant's sleep and wakening patterns.
  - Results in a cranky baby.
- May result in less than optimal breastfeeding outcomes.
  - Mothers may introduce complementary formula feeds in an effort to settle and placate the infant.
- In the long term, alcohol use while breastfeeding can result in a deficit in motor development.

4.5 Alcohol and Breastfeeding – Feed Safe App

- Feed Safe is a free smartphone app (iphone and android) that contains accurate, evidence-based information about alcohol and breastfeeding to enable women to make decisions for themselves and their baby.
- Feed Safe contains an alcohol dissipation formula adapted for Australia using a combination of a mother's height and weight to give an estimate of the time to zero alcohol being in the breastmilk.
- The time to zero is displayed in the application as a countdown timer, and an alert is displayed on the device once the timer has finished.
- Users can enter drinks in the present or past, and drinks can be entered as decimal numbers (e.g. a bottled drink may contain 1.3 standard drinks and the app allows users to enter this amount exactly).
- The app contains information about breastfeeding and alcohol, adapted from NHMRC Alcohol Guidelines and the Australian Breastfeeding Association resources, a standard drinks guide and relevant local contact numbers.

healthway

REACH
HEALTH PROMOTION INNOVATIONS

MODULE 4 RECOMMENDED READING

https://www.breastfeeding.asn.au/bf-info/safe-when-breastfeeding/alcohol-and-breastfeeding

Giglia R Alcohol and Lactation: An updated systematic review Nutrition and Dietetics 2010 67:237-243
http://onlinelibrary.wiley.com/doi/10.1111/j.1747-0080.2010.01469.x/abstract

Giglia R, Binns C, Alfonso H, Scott J, Oddy W. The effect of alcohol intake on breastfeeding duration in Australian women. Acta Paediatricia. 2008;97:624-629
https://www.ncbi.nlm.nih.gov/pubmed/18394108

Web-based resources with brief content descriptions

Some of the resources referred to here were developed prior to publication of the Australian guide to the diagnosis of FASD (2016). The information in resources remains relevant despite changes to FASD diagnostic categories.

ONLINE EDUCATION

eLearning modules to accompany the Australian Guide to the diagnosis of FASD

The e-learning modules are designed to provide clinicians with:

- an introduction to FASD including characteristics and manifestations
- an understanding of the risks and effects of alcohol use in pregnancy and how to assess alcohol use in pregnancy
- information needed to conduct a diagnostic assessment using the three diagnostic criteria
- general principles for discussing the diagnosis, developing a management plan and supporting families and individuals after a FASD diagnosis
- an understanding of referral and screening criteria for FASD

https://www.fasdhub.org.au/fasd-information/assessment-and-diagnosis/guide-to-diagnosis/e-learning-modules/

Fetal Alcohol Spectrum Disorder

An Introduction to Fetal Alcohol Spectrum Disorder online learning package was developed by the WA Drug and Alcohol Office Workforce Development Branch and Strong Spirit Strong Future Project in collaboration with the Telethon Kids Institute. It provides an overview of alcohol use and women, the impact of alcohol on the developing fetus, Fetal Alcohol Spectrum Disorder (FASD) diagnosis, and FASD prevention including brief interventions and screening.

The package has been developed for human service providers in Western Australia who work with women of child bearing age, their families and communities. The package can be accessed through the Mental Health Commission (see link below). Access to the e-learning is through email based self-registration. Alcohol Brief Intervention modules are also available.

https://aodelearning.mhc.wa.gov.au/course/index.php?categoryid=6
https://aodelearning.mhc.wa.gov.au/mod/scorm/view.php?id=56

Women Want to Know for health professionals

This course is designed to refresh knowledge on how to advise women about alcohol in pregnancy and whilst breastfeeding and is an essential component of the Women Want to Know project which was developed by the Foundation for Alcohol Research and Education (FARE) in collaboration with leading health professional bodies across Australia. This package is available free to all member and non-member midwives , obstetricians and RACGP members. The course attracts CPD points for each profession.

http://www.alcohol.gov.au/internet/alcohol/publishing.nsf/Content/wwtk

Brief Interventions for a Healthy Lifestyle: Maternity and Child Health

Introduces the concept of brief intervention and provides guidance on how to conduct brief interventions with patients to support healthy lifestyle choices that limit substance use, encourage healthy eating and incorporate physical activity into daily life. The course is provided by the Queensland Government via the Clinical Skills Development Service, is free and available to all.

https://www.sdc.qld.edu.au/courses/226

PRINTABLE AND/OR DESKTOP RESOURCES FOR HEALTH PROFESSIONALS

The National Drug and Alcohol Research Council (NDARC) have produced ***Supporting Pregnant Women who use Alcohol or Other Drugs: a guide for primary health care professionals.*** The guide also includes links to a range of other resources including those for brief intervention, Indigenous specific and other relevant topics.

https://ndarc.med.unsw.edu.au/resource/supporting-pregnant-women-who-use-alcohol-or-other-drugs-guide-primary-health-care%20

The National Health and Medical Research Council's 2009 ***Alcohol Guidelines, Frequently Asked Question***s publication, covers all the alcohol guidelines including Guideline 4 which is specific to pregnant and breastfeeding women. Two questions relevant to pregnant women are found on page 3 and the FAQ also describes standard drinks with full colour standard drinks guides included.

https://www.nhmrc.gov.au/sites/default/files/documents/reports/alcohol-harm-reduction-faq.pdf

The WA Drug and Alcohol Office have a range of resources including: alcohol and pregnancy - a resource for health professionals; alcohol and pregnancy - A4 fact sheet; and order forms for these resources. Access the relevant page using this link:

https://www.mhc.wa.gov.au/training-and-events/training-for-professionals/

The *Women Want to Know* project includes leaflets for women and midwives. Hard copies of the leaflets can be ordered from the resources and publications page, or

https://beta.health.gov.au/initiatives-and-programs/women-want-to-know-initiative

ONLINE VIDEO RESOURCES FOR HEALTH PROFESSIONALS

The FASD Hub includes videos for health professionals

'GPaskthequestion'

This page includes videos about asking the question about alcohol

https://www.fasdhub.org.au/fasd-information/understanding-fasd/alcohol-use-in-pregancy/gpaskthequestion/

Women Want to Know Resources

This includes videos demonstrating different techniques for providing an alcohol intervention for pregnant women.

https://beta.health.gov.au/resources/collections/women-want-to-know-resources

Videos have been produced for the NSW Kids and Families and Drug and Alcohol Population and Community Programs, Centre for Population Health program on raising awareness about the risks of drinking alcohol in pregnancy. The project aims to inform Aboriginal families planning or expecting a baby, and support health professionals to discuss alcohol with Aboriginal pregnant women.

www.kidsfamilies.health.nsw.gov.au/publications/fetal-alcohol-spectrum-disorder-aboriginal-awareness-videos/

There is an excellent video produced by the British Colombia Centre for Excellence in Women's Health demonstrating a midwife/woman consultation which leads to a discussion about alcohol and pregnancy.

https://youtu.be/ZDuG8e4bhOA

PRINTABLE RESOURCES RELEVANT WHEN WORKING WITH ABORIGINAL WOMEN

The WA Government Drug and Alcohol Office produce a range of culturally secure resources for Aboriginal people as part of the Strong Spirit Strong Mind program. Copies of the resources can be ordered by completing an order form. Or for further information,

http://alcoholthinkagain.com.au/Campaigns/Campaign/ArtMID/475/ArticleID/9/Strong-Spirit-Strong-Future

http://www.aodknowledgecentre.net.au/aodkc/alcohol/health-promotion-resources

A full colour guide for health professionals working with Aboriginal women has been modified from the ***Women Want to Know*** project and uses images of Aboriginal women and provides tips on avoiding alcohol in social situations. It is available through the NSW Department of Health site at this link:

http://yourroom.com.au/wp-content/uploads/2015/09/1.FASD-guide-for-health-workers.pdf

Australian Indigenous Alcohol and other Drugs Knowledge Centre have a range of resources for addressing alcohol use including a strategy for addressing FASD in the Northern Territory 2018-2024 .

https://digitallibrary.health.nt.gov.au/prodjspui/bitstream/10137/7232/1/DOH_FASD_Strategy_Web.pdf

NT yarning about alcohol

This reference is useful in discussions with Aboriginal and Torres Strait Islander people it includes suggestions on how to ask the questions and images of standard drinks

http://www.remoteaod.com.au/sites/default/files/images/Yarning%20about%20Alcohol%20%26%20Pregnancy%202015.pdf

http://remoteaod.com.au/sites/default/files/images/Yarning%20about%20Alcohol%20and%20Pregnancy%20Advice%20Card%202015.pdf

USA

The Centre for Disease Control and Prevention has a webpage dedicated to FASD and Pregnancy. The site has videos and podcasts which may be useful for health professionals and women.

www.cdc.gov/ncbddd/fasd/multimedia.html

Canada

British Columbia Centre of Excellence for Women's Health Alcohol & FASD Prevention

Generating and raising awareness of research on the risks associated with alcohol use by girls and women is an important aspect of BCCEWH work. BCCEWH is known for promoting a multilevel approach to prevention of alcohol use in pregnancy, including broad awareness activities, non-judgemental discussion of drinking by health professionals, access to specialized holistic support programming, and post-partum interventions with mothers and children. As well as health promotion and prevention related work, BCCEWH researchers and knowledge exchange experts work towards improving policy and service provision for girls and women with substance use problems and addictions, including trauma-informed substance use treatment. The website includes a range of publications.

http://bccewh.bc.ca/alcohol-fasd-prevention/

RESOURCES FOR WOMEN (INCLUDING TRANSLATED RESOURCES)

The Women Want to Know project have a fact sheet/pamphlet

https://beta.health.gov.au/resources/collections/women-want-to-know-resources

These can be ordered at no extra cost.

Alcohol think again wallet card titled

https://alcoholthinkagain.com.au/Portals/0/documents/publications/Alcohol%20and%20Health/No%20alcohol%20in%20pregnancy%20is%20the%20safest%20choice%20-%20wallet%20card%20for%20women.pdf

Can be ordered at no cost through:

https://alcoholthinkagain.com.au/Portals/0/documents/Resource%20order%20form/ALCOHOL-RESOURCE-ORDER-FORM-SEPT17.docx

Alcohol.gov.au brochure

(including translated alcohol and pregnancy and alcohol and breastfeeding resources in: Chinese, Serbian, Russian, Vietnamese, Arabic, Italian, Korean, Khmer, Turkish)

https://beta.health.gov.au/health-topics/alcohol?utm_source=alcohol.gov.au&utm_medium=redirect&utm_campaign=digital_transformation

Can be ordered at no cost and in various languages:

https://beta.health.gov.au/health-topics/alcohol?utm_source=alcohol.gov.au&utm_medium=redirect&utm_campaign=digital_transformation

NOFASD Australia has resources available to community groups and professionals to raise awareness about the risks of drinking alcohol during pregnancy and to provide a better understanding of FASD. These resources are available for free to download by clicking on the title, and NOFASD will mail a limited number of hard copies for a nominal charge for postage and handling.

www.nofasd.org.au/resources/nofasd-australia-resources

Stay Strong and Healthy is a NSW pregnancy campaign which contains downloadable resources that are culturally appropriate for Aboriginal People.

https://yourroom.health.nsw.gov.au/Pages/home.aspx

ALCOHOL AND BREASTFEEDING RESOURCES FOR WOMEN

***Alcohol.gov.au* brochure**

https://beta.health.gov.au/health-topics/alcohol?utm_source=alcohol.gov.au&utm_medium=redirect&utm_campaign=digital_transformation

Can be ordered at no cost and various languages through:

www.alcohol.gov.au/internet/alcohol/publishing.nsf/Content/resources-menu?OpenDocument&CATEGORY=Information+mate_rials&SUBMIT=Search

Australian breastfeeding association brochure

https://www.breastfeeding.asn.au/sites/default/files/imce/ABA_Alchohol_BF%20for%20website_0.pdf

OTHER RESOURCES, INFORMATION, RESEARCH AND HEALTH PROMOTION TOOLS

The FASD Hub website lists a range of resources, publications, information and current research on the website:

https://www.fasdhub.org.au/

The FASD PosterMaker is a free app that has been designed by The Frontier Group for the National Drug Research Institute, Curtin University to provide health professionals working in Aboriginal and Torres Strait Islander health care settings with a tool to create their own locally relevant and culturally appropriate resources on Fetal Alcohol Spectrum Disorders (FASD).

http://fasdpostermaker.com.au/

Alcohol & Pregnancy: Ask, Assess, Advise

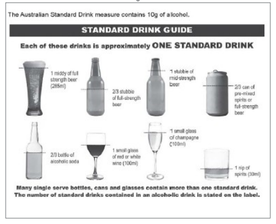
Quick tips for using AUDIT-C | p.19, National Women Held Pregnancy Record

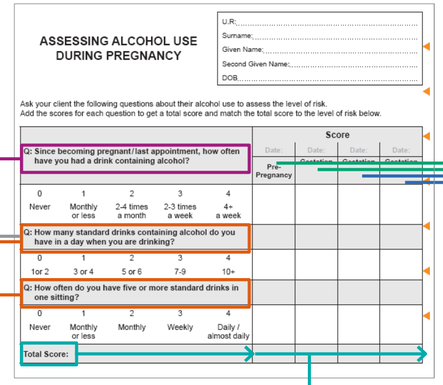
ASK ALL WOMEN

It is estimated around 20% of women will continue to consume some alcohol during pregnancy. Women's circumstances may change.

USE A CHART

Use a chart showing all **standard drink types** and amounts as this helps women more accurately report how much alcohol they have been consuming.





BE ALERT TO BINGE DRINKING

(Note: binge drinking - 5 or more standard drinks on an occasion)

Women may ignore, or forget, a one-time occasion when they consumed alcohol unless they are asked:

"Has there been any special occasion since you became pregnant when you have drank alcohol?" and "How many drinks did you have on that occasion?"

RECORD THE TOTAL

Always record the Total AUDIT-C score at each visit (minimum 0 to maximum 12). Even when the Total Score = 0 (Zero).

PREVIOUS HISTORY

If there is **any history** of alcohol use, redo AUDIT-C at two subsequent antenatal visits following the booking visit.

ASSESS PRE-PREGNANCY ALCOHOL USE

Asking about pre-pregnancy drinking at a first visit may be less confronting and provides an opening to discuss alcohol use in pregnancy.

Consider asking: "prior to becoming pregnant – how often did you have a drink containing alcohol?"

Follow questions about pre-pregnancy with the AUDIT-C questions about **current alcohol use.**

ASSESS ALCOHOL USE DURING PREGNANCY

Even if a woman's score = 0 (zero): always follow the AUDIT-C assessment with a brief intervention to educate and inform women about alcohol use in pregnancy.

Use the guidance in the maternal and fetal risk tables (pages 19-20 NWHPR.)

Use a non-judgemental approach to the brief intervention.

Ask open questions.

Example questions for starting a brief intervention

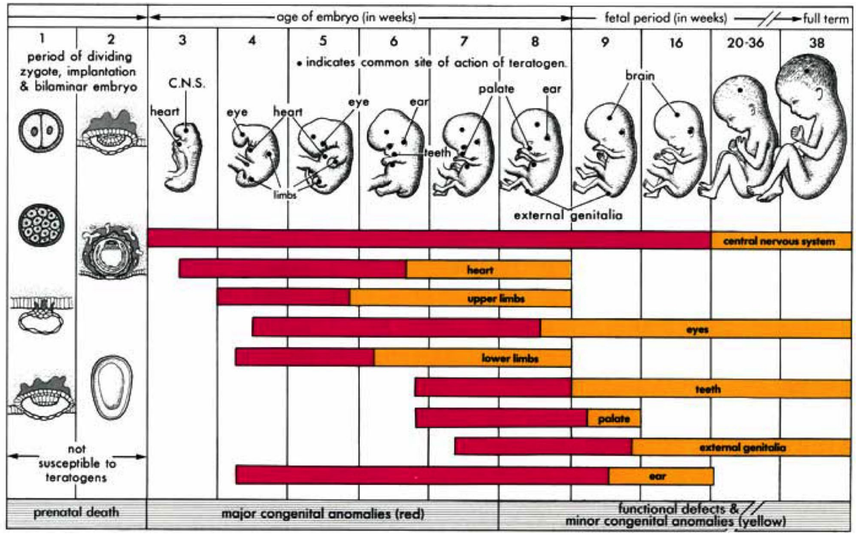
"Would you like to describe something about when and why you drink?"

"Is there something that makes you want to drink, like an argument, or feeling sad all the time?"

Standard Drinks Guide

Embryonic Development

CNS development occurs throughout pregnancy (and during infancy and early childhood).



As such the message that no alcohol in pregnancy is the safest option is also relevant to breastfeeding. In Little B.B. (ed) 2007, *Introduction to Drugs In Pregnancy* it is noted that women may have anxiety regarding alcohol or other drug exposure during their pregnancy and this may be influenced by cultural beliefs, educational background, socioeconomic status and ethnic-specific folklore. The authors note that "Rapport with the patient is important, assuring confidentiality and establishing a basis for the patient's trust. The counselor must convey to the patient his or her understanding of the patient's concerns, and explain that the purpose of the consultation is to deal directly with those concerns by ascertaining the magnitude of the risk for an adverse pregnancy outcomes arising from the drug exposure" (2007, p.14-15).

The Embryonic Development image has been adapted from Little B.B. (editor) 2007 Drugs and Pregnancy-A handbook. Hodder Arnold, London, UK

Example of template to record self-directed CPD: Nursing and Midwifery Board of Australia evidence template

Evidence record

Self directed continuing professional development for nurses and midwives

Nursing and Midwifery Board of Australia

Name:_____

Date	Identified learning need	Learning plan	Activity undertaken	Reflection on activity	CPD Hours

Australian Health Practitioner Regulation Agency
G.P.O. Box 9958 | Melbourne VIC 3001 | www.ahpra.gov.au

References

[1] Anderson AE, Hure AJ,Kay-Lambkin FJand Loxton D *Women's perceptions of information about alcohol use during pregnancy: a qualitative study.* BMC Public Health 2014, 14:1048

[2] Jones SC, Telenta J, Shorten A, Johnson K *Midwives and pregnant women talk about alcohol: what advice do we give and what do they receive?* Midwifery 2011 27:489-496

[3] National Health and Medical Research Council (2009) *Australian Guidelines to reduce health risks from drinking alcohol.* Commonwealth of Australia, Canberra, ACT

[4] Reibel T. (2016) *Midwives and Women AUDIT-C Intervention Project: Critical Literature Review and Qualitative Data Report.* Telethon Kids Institute, The University of Western Australia, under contract with the WA Department of Health;2016

[5] Wyndow, P., Jackiewicz, T. Bower, C. Radomilijac A., Molster, C. *Findings from the WA Health and Pregnancy Survey 2015.* Telethon Kids Institute, The University of Western Australia, under contract with the WA Department of Health;2016

[6] Loxton D, Chojenta C, Anderson AE, Powers JR, Shakeshaft A, Burns L. *Acquisition and Utilization of Information about Alcohol Use in Pregnancy Among Australian Pregnant Women and Service Providers.* Journal Midwifery & Women's Health 2013 58(5):523-530

[7] MeurkCS, Broom A, Adams J, Hall W, Lucke J. *Factors influencing women's decisions to drink alcohol during pregnancy: findings of a qualitative study with implications for health communication.* BMC Pregnancy and Childbirth 2014 14:246

[8] Ibid. (Reibel T,2016)

[9] Payne JM, Watkins RE, Jones HM, Reibel T, Mutch R, Wilkins A, Whitlock J and Bower C. *Midwives' knowledge, attitudes and practice about alcohol exposure and the risk of fetal alcohol spectrum disorder.* 2014 BMC Pregnancy and Childbirth 14:377

[10] Op.Cit. (Reibel,2016)

[11] Davis J. *Education through Self-directed Learning.* Australian Nursing and Midwifery Federation July 201523(1)

[12] Department of Health Western Australia. *Fetal Alcohol Spectrum Disorder Model of Care. Perth: Health Networks Branch.* Department of Health. Western Australia 2010

[13] Streissguth AP, & LaDue RA. (1987) Fetal alcohol: Teratogenic causes of developmental disabilities. In S. R. Schroeder (Ed.), *Monographs of the American Association on Mental Deficiency, No. 8. Toxic substances and mental retardation: Neurobehavioral toxicology and teratology* (pp. 1-32). Washington, DC: American Association on Mental Retardation

[14] Jones K, & Streissguth S. *Fetal Alcohol Syndrome and Fetal Alcohol Spectrum Disorders: A brief history.* Journal of Psychiatry & Law. 38(4):373-382

[15] O'Leary C, Jacoby P, D'Antoine H, Bartu A, Bower C. *Heavy prenatal alcohol exposure and increased risk of stillbirth.* BJOG 2012;119:945–952.

[16] Bower C, Elliott EJ. 2016, on behalf of the Steering Group. Report to the Australian Government Department of Health: *"Australian Guide to the diagnosis of Fetal Alcohol Spectrum Disorder (FASD)"*

[17] May PA, Gossage JP. *Maternal Risk Factors for Fetal Alcohol Spectrum Disorders: Not As Simple As It Might Seem.* Alcohol Research & Health. 2011.34(1):15-26

[18] Ramsay M. *Genetic and epigenetic insights into fetal alcohol spectrum disorders.* Genome Med. 20102(4):27

[19] Dudley, A., Reibel, T., Bower, C., Fitzpatrick, J., (2015). *Critical Review of the Literature: Fetal Alcohol Spectrum Disorders,* Telethon Kids Institute, Subiaco, Western Australia under contract with the National Disability Insurance Agency

[20] Streissguth A.P, Bookstein F.L, Barr H.M, Sampson P.D, O'Malley K., Kogan J. (2004). *Risk factors for adverse life outcomes in fetal alcohol syndrome and fetal alcohol effects.* Dev Beh Pediatr, 25:228–38.

[21] Ibid. (Bower & Elliott2016)

[22] Abel, E. L., & Sokol, R. J. (1987). *Incidence of fetal alcohol syndrome and economic impact of FAS-related anomalies.* Drug Alcohol Depend, 19(1):51-70

[23] O'Keeffe LM, Kearney PM, McCarthy FP, Khashan AS, Greene RA, North RA, et al. *Prevalence and predictors of alcohol use during pregnancy: findings from international multicentre cohort studies.* BMJ Open 2015 5(7):e006323

[24] Taplin S, Richmond G, McArthur M. (2015) *Identifying alcohol and other drug use during pregnancy: outcomes for women, their partners and their children.* Australian National Council on Drugs
https://www.acu.edu.au/__data/assets/pdf_file/0004/755275/AOD_Use_During__Pregnancy.pdf

[25] 2010 National Drug Strategy Household Survey
https://www.aihw.gov.au/getmedia/003597cd-3fae-4f3d-a5bc-179ea5a68c3f/12668.rtf.aspx?inline=true

[26] Op.Cit. (Bower & Elliott2016)

[27] Jones SC, Telenta J, Shorten A, Johnson K. *Midwives and pregnant women talk about alcohol: what advice do we give and what do they receive?* Midwifery 2011 27:489-496

[28] Skagerstrom J, Chang G, and Nilsen P. *Predictors of Drinking During Pregnancy: A systematic review.* J of Women's Health 2011 20(6):901-913

[29] Peadon E, Payne J, Henley N, D'Antoine H, Bartu A, O'Leary C, Bower C, Elliott EJ. *Attitudes and behaviour predict women's intention to drink alcohol during pregnancy: the challenge for health professionals.* BMC Public Health 2011 11:584

[30] *Health professionals addressing alcohol use with pregnant women in Western Australia: barriers and strategies for communication.* France K, Henley N, Payne J, D'Antoine H, Bartu A, O'Leary C, Elliott E, Bower C. Subst Use Misuse 2010; 45: 1474-1490

[31] Bradley KA, DeBenedetti AF, Volk RJ, Williams EC, Frank D, and Kivlahan DR. *AUDIT-C as a Brief Screen for Alcohol Misuse in Primary Care.* Alcohol Clin Exp Res 2007 31(7):1208-1217

[32] Op.Cit. (Reibel,2016)

[33] O'Donnell A, Anderson P, Newbury-Birch D, Schulte B, Schmidt C, Reimer J and Kaner E. *The impact of Brief Alcohol Interventions in Primary Healthcare: A systematic Review of Reviews.* Alcohol and Alcoholism 2014 49(1):66-78

[34] Op.Cit. (Bower & Elliott,2016)

[35] Meurk CS, Broom A, Adams J, Hall W, Lucke J. *Factors influencing women's decisions to drink alcohol during pregnancy: findings of a qualitative study with implications for health communication.* BMC Pregnancy and Childbirth 2014 14:246

[36] National Drug and Alcohol Research Centre *Supporting Pregnant Women who use Alcohol or Other Drugs: A guide for Primary Health Care Professionals.* (n.d.) UNSW Australia.

https://ndarc.med.unsw.edu.au/resource/supporting-pregnant-women-who-use-alcohol-or-other-drugs-guide-primary-health-care

[37] *Australian Guide to FASD Diagnosis* (2016)

[38] Muggli E, Cook B, O'Leary C, Forster D, Halliday J. *Increasing accurate self-report in surveys of pregnancy alcohol use.* Midwifery 2015 31:323-e28

[39] Crawford-Williams F, Steen M, Esterman A, Fielder A, Mikocka-Walus A. *"My midwife said that having a glass of red wine was actually better for the baby": a focus group study of women and their partner's knowledge and experiences relating to alcohol consumption in pregnancy.* BMC Pregnancy and Childbirth 2015 15:79

[40] National Drug and Alcohol Research Centre *Supporting Pregnant Women who use Alcohol or Other Drugs: A guide for Primary Health Care Professionals.* (n.d.) UNSW Australia.

https://ndarc.med.unsw.edu.au/resource/supporting-pregnant-women-who-use-alcohol-or-other-drugs-guide-primary-health-care%20

[41] Crawford-Williams F, Steen M, Esterman A, Fielder A, Mikocka-Walus A. *"My midwife said that having a glass of red wine was actually better for the baby": a focus group study of women and their partner's knowledge and experiences relating to alcohol consumption in pregnancy.* BMC Pregnancy and Childbirth 2015 15:79

[42] Muggli E, Cook B, O'Leary C, Forster D, Halliday J. *Increasing accurate self-report in surveys of pregnancy alcohol use.* Midwifery 2015 31:323-e28

[43] Chang G, McNamara TK, Orav EJ, Koby D, Lavigne A, Ludman B, Vincitorio NA and Wilkins-Haug L. *Brief Intervention for Prenatal Alcohol Use: A Randomized Trial* American College of Obstetricians and Gynecologist 2005 105(5):991-998

[44] O'Donnell A, Anderson P, Newbury-Birch D, Schulte B, Schmidt C, Reimer J and Kaner E. *The impact of Brief Alcohol Interventions in Primary Healthcare: A systematic Review of Reviews* Alcohol and Alcoholism 2014 49(1):66-78

[45] Nilsen P, Homqvist M, Bendtsen P, Hultgren E and Cedergren M. *Is Questionnaire-Based Alcohol Counseling More Effective for Pregnant Women Than Standard Maternity Care?* Journal of Women's Health 2010 19(1):161-167

[46] Bien T, Miller, WR, and Tonigan JS. *Brief interventions for alcohol problems: a review* Addiction 1993 88(3):315-33

[47] Foundation for Alcohol Research and Education *Women Want to Know* 2014

http://fare.org.au/women-want-to-know/

Notes (use this page to make notes)

TELETHON KIDS INSTITUTE
Discover. Prevent. Cure.

Government of **Western Australia**
Department of **Health**