

# Alcohol and Breastfeeding: Drawing Parallels with Pregnancy



2nd Australasian  
**FASD Conference 2018**  
Our Science Our Stories

**TELETHON**  
**KIDS**  
**INSTITUTE**  
Discover. Prevent. Cure.

Dr Roslyn Giglia  
PhD MPH GradDipDiet

Proudly supported by the  
people of Western Australia  
through Channel 7's Telethon



# Overview

- Effect of alcohol on breastfeeding and the infant
- Uptake of national policy in this area
- What is the importance overall
- The parallels with pregnancy - throughout



# Alcohol and Pregnancy Pamphlets

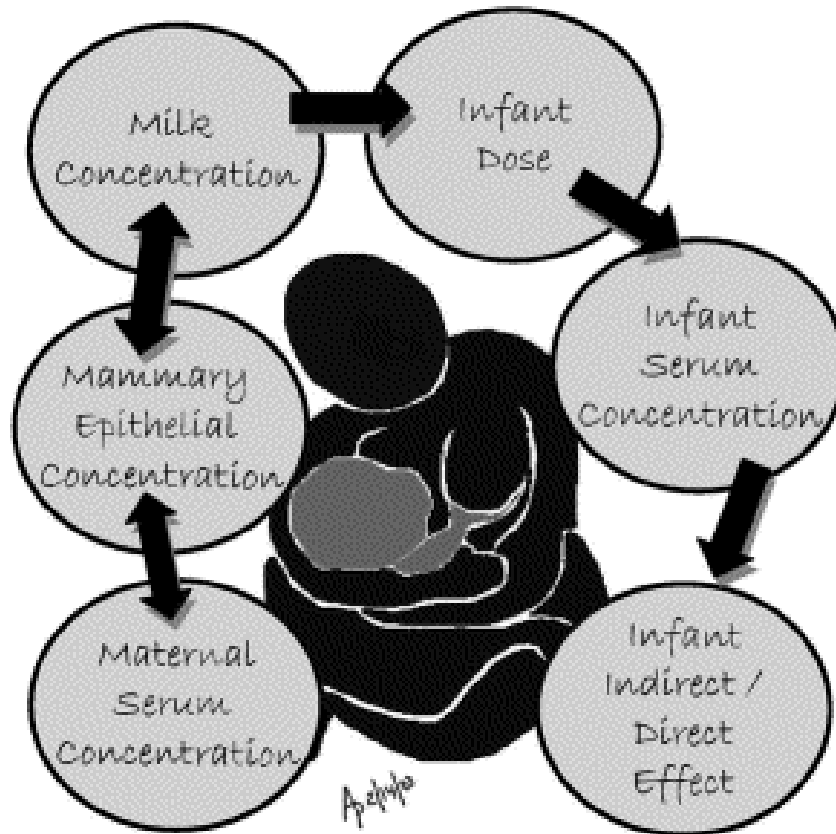




# Alcohol and Breastfeeding Pamphlets



# Alcohol and lactation





# Effect on Lactation

- Diminished let-down reflex through the inhibition of oxytocin.
  - *Results in decreased breastmilk volume and a hungry, cranky baby.*

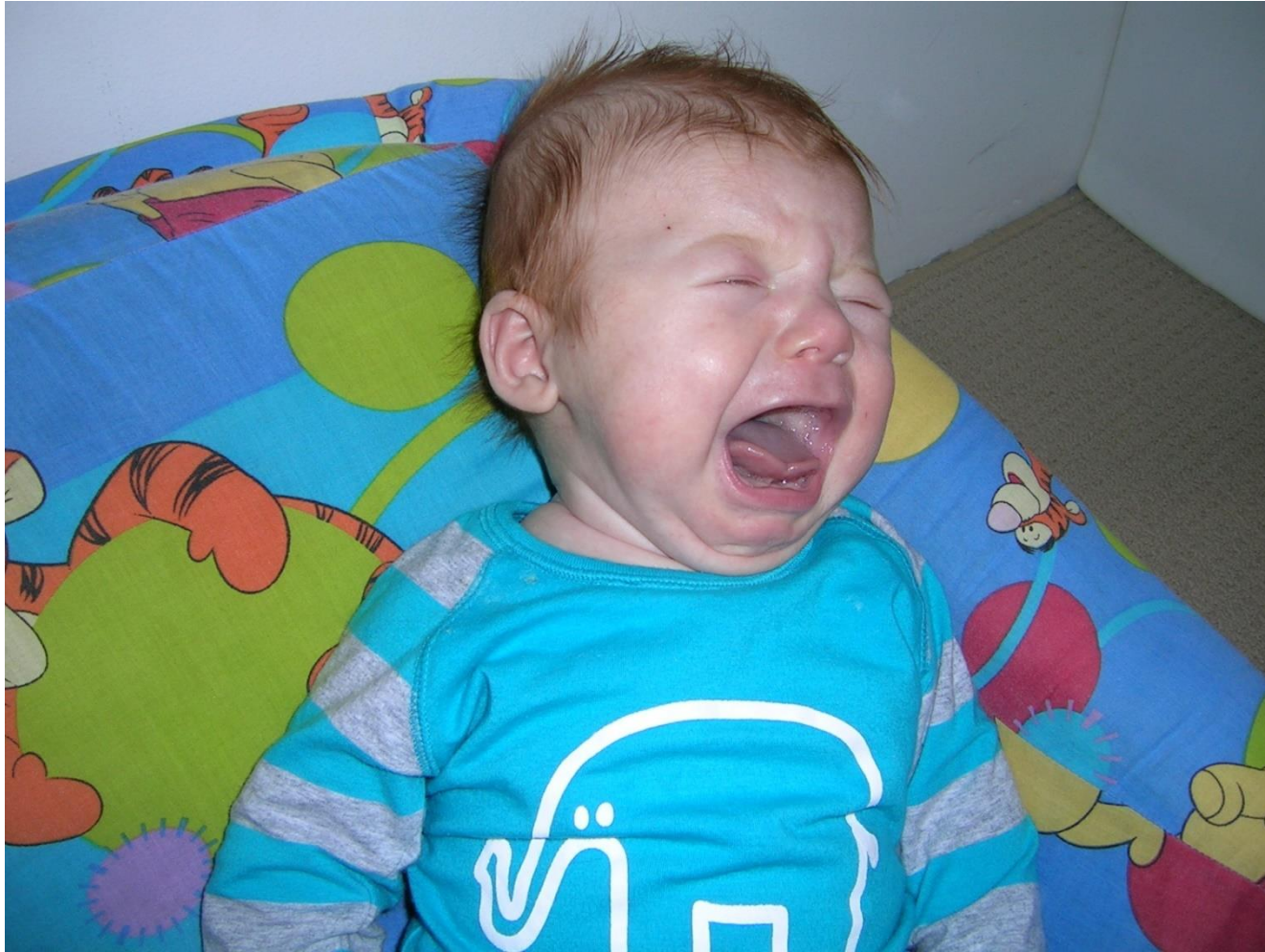




# Effect on the Infant

- Exposure to small amounts of alcohol in breastmilk can disrupt the infant's sleep and waking patterns.
  - *Results in a cranky baby.*





# Effect on the Mother and the Infant

- Regular exposure to small amounts of alcohol in breastmilk result in less than optimal breastfeeding outcomes including early cessation (intakes  $>2$ std drinks/day)





# Cognitive Effect on the Infant

- Animal studies – reduced learning in pups and cerebral changes similar to those exposed during pregnancy.
- Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC) (Gibson & Porter, 2018) found greater or riskier maternal alcohol intake during lactation was associated with dose-dependent reductions in abstract reasoning at 6 to 7 years independent of prenatal etoh.



# Cognitive Effect on the Infant

- Earlier research by May et al (2016) also found alcohol use during the period of breastfeeding significantly compromised a child's development – lower weight and verbal IQ.
- Also found that mother's of children with FAS were most likely to drink during the period of breastfeeding.



# Maternal drinker profile 2002/3

- 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.

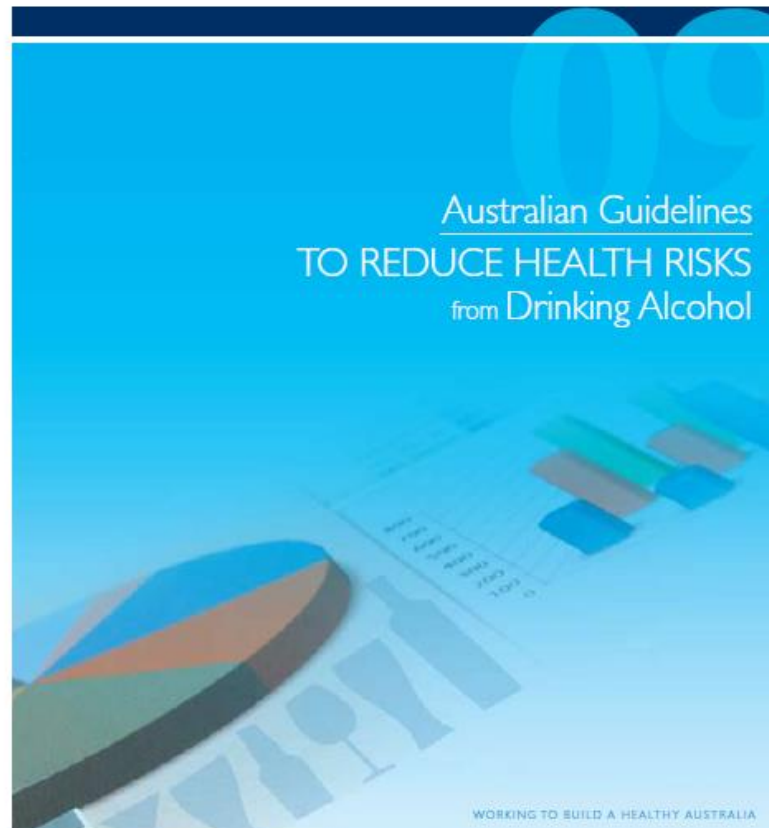




# Knowledge Translation to Public Health Policy



Launched  
March 2009



## Guideline 4: Pregnancy and breastfeeding

### GUIDELINE 4

---

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.



## ADVICE FOR BREASTFEEDING MOTHERS

---

- Not drinking alcohol 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 could consider expressing milk in advance.

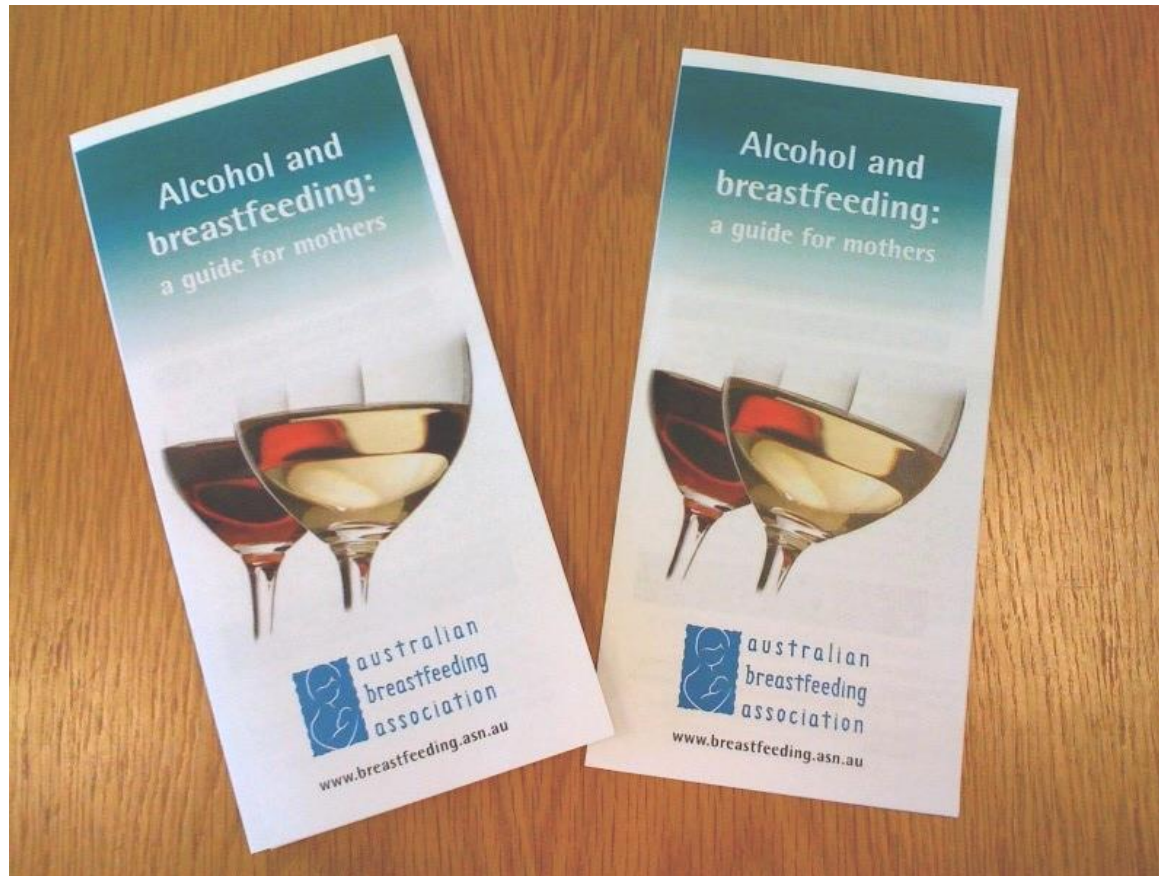
# Public Health Policy to Health Promotion/Education





# DISSEMINATION

## Alcohol and Breastfeeding Pamphlet



# Further dissemination of research knowledge to the Feed Safe App



Reach Health Promotion Innovations  
IOS - February 2014  
Android - April 2016

# Evaluating the evidence-practice gap between the NHMRC alcohol and breastfeeding guideline (2009), clinician application and maternal uptake

Knowledge Translation to Practice Change?  
Knowledge Translation Research





# Methods

- Mixed method of enquiry
  - Online survey
  - One to one in-depth interviews using the Theoretical Domains Framework as a guide





# Methods

- Measuring the use of specific research findings into practice was first developed by Brett (1987) using the Nursing Practice Questionnaire (NPQ).
- Based on Rogers' stages of innovation adoption (1980) the NPQ uses seven questions to measure practitioner's stages of innovation adoption.



# NPQ

1. In your practice have you read about alcohol and breastfeeding?
2. In your practice have you heard about alcohol and breastfeeding?
3. Have you observed other midwives or heard other midwives discussing alcohol and breastfeeding in their practice?
4. Have you learned about alcohol and breastfeeding from any other sources?
5. If appropriate to the practice setting, do you believe a midwife should discuss alcohol and breastfeeding during their practice with breastfeeding women?
6. In your practice, how often do you initiate a discussion about alcohol and breastfeeding with breastfeeding women?
7. Are you aware of any policies in your workplace regarding advice about alcohol and breastfeeding?







# Methods

- The practice innovation measured focused on maternal practitioners educating clients on alcohol on breastfeeding.
- The NPQ was used to measure practitioner's stages of innovation adoption and was modified with input from key stakeholders.
- The total score is out of 4.



# Methods

- Participants
  - Midwives: metro hospitals x 5 and Australian College of Midwives
  - Child Health Nurses: metro and through WA Country Health Services (WACHS) x 6
  - GPs: professional networks, personal contacts and RACGP
  - Paediatricians: RACP, metro hospitals x 2, professional networks
  - Obstetricians: metro hospitals x 2, professional networks



# Results Adoption and Innovation Score

Practitioner	NPQ Score (SD)	Stage of Adoption
Child Health Nurses (n=83)	3.13 (0.46)	Use the practice sometimes
Midwives (n=73)	3.04 (0.64)	Use the practice sometimes
GPs (n=48)	2.73 (0.64)	Use the practice sometimes
Paediatricians (n=29)	2.28 (0.65)	Persuaded about the practice
Obstetricians (n=7)	2 (1.16)	Persuaded about the practice





# Results

- Multivariate analysis of factors associated with adoption of Guideline 4B were considered:
  - Gender
  - Awareness of the ABA brochure
  - Awareness of Feed Safe
  - Practitioner group



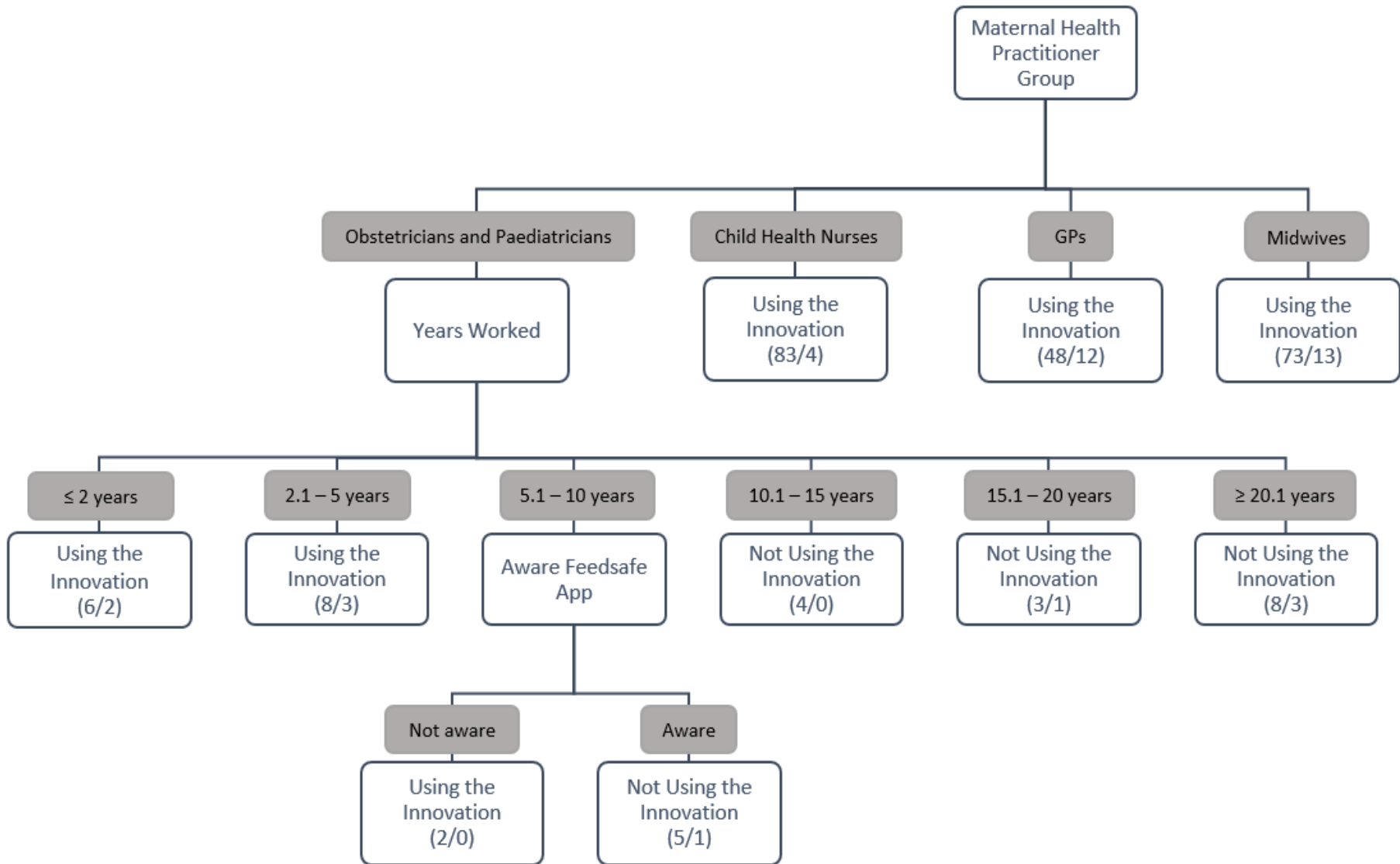


# Results

Compared to child health nurses, each of the other groups

- Midwives: 3.73 (1.14 – 12.20),  $p=0.030$ ,
- GPs: 5.29 (1.51 – 18.52),  $p=0.009$ ,
- Paediatricians and Obstetricians: 22.73 (6.41 – 83.33),  $p<.001$

had significantly lower odds of adopting the alcohol and breastfeeding guideline in their daily practice.



C4.5 Decision Tree using  $C=0.45$  for Use of the Innovation



# Parallels of Interest

- Results show the group of practitioners with most engagement scored higher on the NPQ indicating better adoption and innovation.
  - Child Health Nurses, Midwives and GPs
  - Results still not great – ‘use the practice sometimes’
- There remain hard to reach groups with a high level of influence in maternal health.



# Parallels of Interest

- Compared to pregnancy, concern regarding alcohol and lactation is reserved as less detrimental but there is a role for all maternal health professionals to be engaged.
- Breastfeeding is part of the reproductive cycle, not just pregnancy.





# Points of Interest - Maternal

Proportion of breastfeeding women consuming two standard drinks

- 2002/3 cohort            73.9%
  - 2010 rural cohort        93.2%
  - 2015/6 cohort            94.3%
- Decrease in proportion consuming alcohol at levels previously deemed risky.
  - Shift potentially attributed to the addition of the practical advice as an adjunct to guideline 4B after 2009.





# Points of Interest


- Research translation into evidence based policy in the absence of a dedicated national education campaign does not support knowledge translation.



DOI: 10.1111/ajo.12837

**ORIGINAL ARTICLE**

# The provision of alcohol and breastfeeding information by maternal health practitioners in the Australian setting

Roslyn Carmel Giglia<sup>1</sup> , Martyn Symons<sup>1</sup> and Thérèse Shaw<sup>2</sup>

Thank you for your fine contribution. The Editorial Board of The Australian and New Zealand Journal of Obstetrics and Gynaecology look forward to your continued contributions to the Journal.

Sincerely,

Prof. Caroline de Costa

Editor, The Australian and New Zealand Journal of Obstetrics and Gynaecology

[anzjog@rancog.edu.au](mailto:anzjog@rancog.edu.au)

Referees' Comments to Author:

Referee: 1

Comments to the Author

This was a well written article on an important topic. The impact of the lack of an implementation strategy on the adoption of the policy is significant and I hope this paper will be used to lobby for future change.

Referee: 2

Comments to the Author

I feel the main conclusion of this paper is that it is difficult to make all practitioners aware of new guidelines, however the lactation and alcohol guideline seems pretty obvious really any way. In the same way that it's difficult to make people aware of guidelines it's equally difficult to get them to read and answer surveys such as yours hence the small sample size.

The results seem more relevant to WA child and family nurses, midwives and perhaps GPs with no relevance to our specialist colleagues.



# Limitations

- Lack of generalisability to all maternal health professionals.
- Purposive sampling and small sample size obtained in the obstetrician and paediatrician groups.
- Sampling method may have resulted in recruitment of maternal health practitioners with more awareness, and therefore levels of adoption may potentially be overestimated.



# In closing

- Knowledge translation (KT) is about raising knowledge users' awareness of research findings and facilitating the use of those findings. (Canadian Institutes of Health Research)
- What will be your knowledge translation?





# Thank you

