

# Getting over the shock: taking action on Indigenous maternal smoking

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**Abstract.** Smoking rates are slow to decline among pregnant Indigenous women. One in two pregnant Indigenous Australian women is a tobacco smoker compared with one in eight in the non-Indigenous population. The National Close the Gap strategy ambitiously aims to reduce Indigenous smoking prevalence to half by 2018, but this goal is unlikely to be achieved. Evidence is growing to better inform targeted strategies for Indigenous pregnant women based on national and international studies. It is proposed to be an appropriate time to refine translational approaches for anti-tobacco messages and cessation support in this population, rather than waiting for further empirical research before making these essential changes. Systemic barriers to Indigenous pregnant women receiving equitable primary health care have been identified, are remediable, and urgently require addressing. These barriers include: (1) lack of subsidised access to suitable oral forms of nicotine replacement therapy; (2) lack of clinician training in the complex area of management of maternal Indigenous smoking; and (3) lack of targeted health promotion programs addressing the psychosocial challenges that Indigenous women face. In the interim, translational strategies to target tobacco control and cessation in pregnant Indigenous women need to be based on current evidence.

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## Introduction

Indigenous smoking rates must reduce at six-fold the current decline rate to achieve the 2018 Close the Gap target (Thomas 2012). Among Indigenous women in the 25- to 34-year age range, and smokers living in remote locations, rates have remained unchanged for the last decade (Australian Bureau of Statistics 2014). Recently, the Cancer Council Queensland expressed 'shock over Indigenous pregnancy smoking rates', with 53% of Indigenous pregnant women smoking *v.* 15% of their non-Indigenous counterparts (Cancer Council Queensland 2014). Similarly in NSW, 50% of Indigenous women smoke compared with 9% of their non-Indigenous counterparts, with a three to five-fold increase in relative risk since 1996 (NSW Department of Health 2014).

Tobacco smoking during pregnancy is the most important preventable risk factor for maternal and infant health and is linked with growth restriction, miscarriage and preterm birth (Li *et al.* 2012). Some 7000 Indigenous babies per annum are exposed in utero to smoking (Li *et al.* 2012). Indigenous babies are twice as likely to be of low birthweight, yet if during the first 4 months of pregnancy the mother stops smoking, the low birthweight risk decreases to non-smoking levels (Li *et al.* 2012).

In light of these patterns and trends, and the benefits for smoking cessation to Indigenous health generally, this article

summarises recent evidence, from the body of our work and others, and vigorously debates the following pertinent questions:

- (1) Are anti-tobacco messages having an effect on Indigenous pregnant women?
- (2) What evidence-based cessation strategies are recommended in pregnancy and how can Indigenous pregnant smokers be encouraged to use them?
- (3) What are the systemic barriers for Indigenous pregnant women accessing evidence-based cessation methods, and how can these be addressed?

With these three questions, we take an integrated view of primary healthcare approaches. Health promotion messages are included in our deliberations; these are not just the domain of media campaigns, but are important for everyday communication. The Primary Health Care Research and Information Service website includes in their definition of primary health care (PHC): 'In Australia, PHC incorporates personal care with health promotion, the prevention of illness and community development.' Understanding the responses of pregnant Indigenous women in this area is important for primary care. We draw inferences from the Behaviour Change Wheel (BCW), a parsimonious model developed from an overarching synthesis of behaviour intervention frameworks, and use it to structure our discussions about how strategies for

### What is known about the topic?

- National smoking rates are high among Indigenous pregnant women, are slow to decline, and few Indigenous women are able to quit unaided during pregnancy.

### What does this paper add?

- Building on available evidence and the framework of the Behaviour Change Wheel, it is proposed that urgent remediation of the significant barriers to providing best practice translational approaches in primary health care is required to better support Indigenous women to quit smoking.

this population can be strengthened (Fig. 1) (Michie *et al.* 2011). The BCW has been used previously to review the barriers and enablers for smoking cessation in this target group (Gould 2014). This paper addresses recent research to determine how the BCW can be practically applied. The outer circle of the BCW comprises a policy layer, the inner circle represents the individual's behaviour and the middle circle an interventional layer that connects the inner and the outer layers.

### Effect of anti-tobacco messages on Indigenous pregnant women

Tobacco campaigns operate on the outer circle or policy layer of the BCW (communication and marketing) and influence multiple points on the middle interventional layer by persuasion, education, enablement, coercion and modelling. In turn, these interventions centrally influence the individual's capability (C), opportunity (O) and motivation (M) for change – the authors of the model propose that all three C–O–M are required to change behaviour (B) – otherwise known as the COM-B approach (Michie *et al.* 2011).

Table 1 chronologically summarises tobacco campaigns directed towards Indigenous Australians. Indigenous-targeted national campaigns achieve limited media exposure compared with campaigns aimed at the general Australian population. Many local Tackling Indigenous Smoking campaigns are operating out of primary health centres such as Aboriginal Health Services, both community-controlled and government-run; 55% are targeting pregnant women. Funding to this program has been substantially cut before the outcomes have been assessed.

Indigenous Australians prefer culturally targeted messages (Gould *et al.* 2013a). A national survey of 47 organisations, including primary health services, reported that community responses to messages targeting Indigenous Australians positively exceeded the organisations' expectations (Gould *et al.* 2014). Indigenous Australian smokers demonstrated good recall of anti-tobacco messages (Gould *et al.* 2013a; Nicholson *et al.* 2015a) and these messages were associated with intentions to quit smoking (Nicholson *et al.* 2015b). This may be mediated by increased perceptions of the threat from smoking and reflective motivation (Nicholson *et al.* 2015a). However, messages in isolation may not provide the opportunity, nor improve the

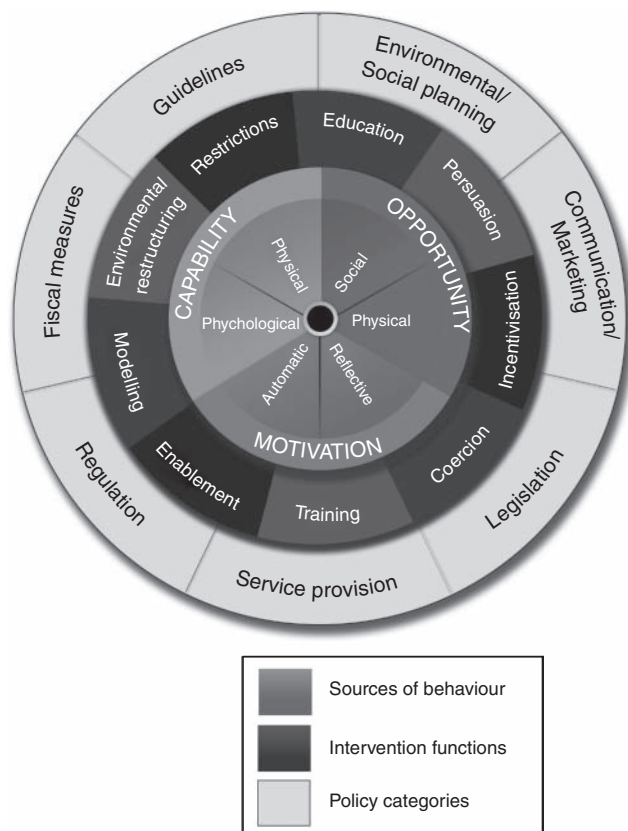


Fig. 1. Behaviour Change Wheel (reproduced with permission from Michie *et al.* 2011).

capability of Indigenous smokers to quit, thus they should be supported by primary healthcare approaches.

Australian Indigenous pregnant women may encounter psychosocial challenges related to their use of tobacco. These include the historical aspects of smoking and colonisation, the social norms of smoking in some Indigenous communities, the stressors associated with everyday life and the added concern of using an addictive substance (Gould *et al.* 2013b). In pregnancy, women perceive their smoking risks and their role differently, thus pregnancy can be considered a 'teachable moment' for smoking cessation (McBride *et al.* 2003). In this case, motivation, as per the BCW, is an automatic or instinctive activity, but can lead to reflective evaluations and plans. When Indigenous women recognise the presence of adverse outcomes in their own or others' children through their smoking, they may express shame and guilt. The stigma of smoking with a 'big belly' has been reported (Gould *et al.* 2013b, 2013c). Messages about smoking in pregnancy are salient in these instances.

Conversely, anti-tobacco messages can lack salience in pregnancy (Gould *et al.* 2013b, 2013c). A mismatch in prevailing messages and women's lived experiences of smoking can affect women's psychological capability and motivation to take action. For example, there can be a lack of visibility of harm for babies, if other family members have smoked without obvious adverse outcomes. Anti-tobacco

**Table 1. Timeline of anti-tobacco message development for Indigenous Australians**  
AMA, Australian Medical Association

Dates	Campaign or Project	Target and evidence (where available)
1999 2000	National Tobacco Campaign evaluation (Murphy and Mee 1999). AMA report on the 'Forgotten Smokers' (Market Equity 2000).	Indigenous viewers prefer targeted and local campaigns. Recommends Indigenous tobacco control messages and targeted cessation.
2006 2008	'Make Smoking History' TV campaign and radio adverts by Aboriginal comedian 'Mary G' WA. 'Beyond The Big Smoke' WA.	Aboriginal families promote smoke-free cars. Smoking in cars by Indigenous smokers drops from 50 to ~38%. Targeted tobacco control for Indigenous smokers through Aboriginal Community Controlled Health Services.
2008–2010	Indigenous Tobacco Control Initiative.	Six targeted projects in 2008–2009, followed by 14 projects nationally in 2010.
2010	'Break The Chain' National Tobacco Campaign (Australian Government 2011).	Indigenous Australians aged 16–40 years. Unprompted recall 19%; prompted recall 77% by Indigenous respondents; >80% identified highly with the advert, whereas a generic campaign, evaluated by the same respondents, did not elicit the same level of self- identification; >50% planning to reduce or quit in the next month.
2012 2012	Tackling Indigenous Smoking and Promoting Healthy Lifestyles program. 'Quit for You Quit for Two' campaign 'More Targeted Approach' (Australian Government 2012).	National program in over 57 regions in Australia include local social marketing and mass media approaches. Evaluation underway. Pregnant smokers aged 16–30 years and women planning to become pregnant. Second wave: unprompted recall <10%; prompted recall in females who had been pregnant or contemplating pregnancy 61%; ~75% smokers intended to take further action; 40% considered quitting. Advertisements considered easy to understand, believable and thought provoking.
2014	Organisational survey of Indigenous anti-tobacco message development (Gould <i>et al.</i> 2014).	In total 64% of 47 organisations target Indigenous youth; 55% target Indigenous pregnant women. Almost 50% of these organisations are in Aboriginal primary care.

messages can be experienced as too confronting when a woman is pregnant, thus the woman may avoid TV advertisements by leaving the room, or deny their relevance (Gould *et al.* 2013b, 2013c).

#### *Intentions for behaviour change in pregnancy*

Some pregnant Indigenous smokers want to cut down or quit smoking (Gould *et al.* 2013b, 2013c). Reduced consumption is usual and although quit attempts are made, they have seldom been reported as successful. This may be due to women having a lack of opportunities for advice and assistance with cessation. Others regard cessation as 'too hard' in pregnancy (Passey *et al.* 2012a), and can even experience stronger urges to smoke during pregnancy, thus affecting a woman's physical capability of cessation (Gould *et al.* 2013c). A lack of family and partner support can impair a pregnant woman's intention and confidence to quit, and reduce capability, opportunity and motivation. Social norms of smoking, smoking for cohesion and peer bonding, the stressors of everyday life plus lack of self-efficacy (perceived capability) for quitting, can translate into continued tobacco use (Passey *et al.* 2011, 2012a; Gould *et al.* 2013b, 2013c). Furthermore, other issues may affect Indigenous women at this time: the pregnancy may be unplanned, women are often in adolescence and urgent social situations have a high priority, such as domestic violence and homelessness. Comprehensive primary care will involve helping women tackle these issues and underlying social determinants of smoking (Gould *et al.* 2015a). Alternately, pregnant women

who do quit are highly regarded as role models by other Indigenous women (Gould *et al.* 2013c).

Intention to quit by Indigenous smokers can be affected by perceptions of threat and efficacy. A community-based study revealed that a majority (77%) of Indigenous smokers of reproductive age perceived smoking to be highly threatening to physical health, implying that reflective motivation is occurring (Gould *et al.* 2015c). Psychological threats of disgust, regret and stigma about smoking have also been reported (Gould *et al.* 2015c). Those who consider the threat to lack immediacy, believing 'smoking is not doing me any harm right now', are less motivated to quit (OR 0.25; 95% CI 0.08–0.8) (Gould *et al.* 2015c). High-perceived efficacy (self-efficacy and response efficacy) for quitting was strongly associated with intention to quit (OR 4.8; 95% CI 1.78–12.93) (Gould *et al.* 2015b), whereas low-perceived efficacy coupled with low-perceived threat (in 16%) was associated with denial, avoidance or reactance to messages (Gould *et al.* 2015d). In summary, to raise intentions to quit smoking, careful attention needs to be paid to levels of efficacy (by boosting capability in a real sense), coupled with the level of threat messages Indigenous smokers are exposed to. Approaches to build efficacy for quitting are achievable in primary healthcare settings, through counselling and targeted resources.

Indigenous community members are observing home smoking rules to protect their children and babies (Walker *et al.* 2015), reflecting on consequences of passive smoking and even challenging each other to achieve these aims (Gould *et al.* 2013c). However, some may believe only new-born babies are susceptible to environmental tobacco smoke (ETS), thus

continue to smoke around older children (Gould *et al.* 2013c). Strategies to avoid third-hand smoke affecting babies and children have been reported in a study involving Australian Indigenous and Maori smokers (Walker *et al.* 2015), including wearing a smoking shirt and showering. These changes indicate reflective motivation, social and physical opportunities and capacity to restructure the home smoking environment (Gould *et al.* 2013c).

#### Considerations for maternal anti-tobacco messages

Smoking by Indigenous women in pregnancy requires special consideration. Anti-tobacco messages effective in other contexts may sometimes be too confronting in pregnancy, leading to disengagement and self-exempting beliefs, as reported in other pregnant populations (Naughton *et al.* 2013). The 'Quit for You Quit for Two' campaign with its gentle references to improving pregnancy outcomes may have messages pitched at the right level or tone (Australian Government 2012). However, we believe that messages targeting Indigenous pregnant smokers require expansion in scope to incorporate the evidence emerging from recent studies. Perceptions about susceptibility to smoking harms could be addressed by using the strategies in Table 2, employed at local, regional and national levels, and developed

with appropriate Indigenous community consultation. Many of these messages can be delivered in primary healthcare settings to Indigenous pregnant women who smoke, and her family members. These settings are an excellent conduit for targeted materials, and messages can be delivered one-on-one or in small groups.

#### Evidence-based cessation strategies recommended in pregnancy and how pregnant Indigenous smokers can be encouraged to use them

National and international guidelines for smoking cessation in pregnancy recommend behavioural counselling, followed by nicotine replacement therapy (NRT) for women unable to quit unaided. NRT is used therapeutically to reduce withdrawal symptoms associated with quitting smoking. It is available as a transdermal patch (slow-acting) and more rapidly acting oral forms such as gum, lozenges, inhaler or a spray. In Australia, oral NRT is the first-line pharmacotherapy in pregnancy, followed by transdermal and then combination NRT (transdermal and oral) if required (Zwar *et al.* 2014). Effective cessation interventions in pregnancy in the general population include: behaviour change techniques, pregnancy-specific self-help materials, financial incentives, and NRT, often as a combination of a patch and a

**Table 2. Suggested responses to beliefs about smoking identified in studies involving pregnant Indigenous women and smokers of reproductive age**  
CO, carbon monoxide; ETS, environmental tobacco smoke; NRT, nicotine replacement therapy

Belief (evidence source)	Suggested response or strategy
<p>1. <i>Lack of visibility of harm</i> (Gould <i>et al.</i> 2013b, 2013c)</p> <ul style="list-style-type: none"> <li>Smoking is not harmful in pregnancy</li> <li>No obvious harmful effect from smoking on babies means they are healthy</li> </ul>	<p>Improve educational messages for pregnancy and explain causality. Effects of smoking on the foetus need to be made more tangible in a culturally appropriate manner. The connection between low birthweight and later obesity, type 2 diabetes and heart disease needs to be promoted. Portray Indigenous people in educational materials.</p>
<p>2. <i>Extenuating circumstances for smoking</i> (Passey <i>et al.</i> 2012a; Gould <i>et al.</i> 2013b, 2013c)</p> <ul style="list-style-type: none"> <li>If others smoke around you when you are pregnant, you may as well smoke yourself</li> <li>It's OK to smoke if you are stressed and smoking is a good way to deal with stress</li> </ul>	<p>Emphasise the benefits of cessation for mother and baby and address relative influences of smoking and ETS. These messages address response efficacy; that is, cessation is worthwhile and effective.</p>
<ul style="list-style-type: none"> <li>Smoking in pregnancy keeps birthweight low if you are pre-diabetic</li> </ul>	<p>Educate smokers on stress-inducing withdrawal effects and treatment. Assess individuals for anxiety and depression; provide supportive counselling and treatment for underlying anxiety and depression. Promote cessation as a means of becoming less stressed in the long term. Educate health professionals on how to approach these topics and prescribe appropriate pharmacotherapy for use in pregnancy, such as NRT to reduce withdrawal effects.</p>
<p>3. <i>Perceptions of harm reduction</i> (Gould <i>et al.</i> 2013b, 2013c)</p> <ul style="list-style-type: none"> <li>Cutting down smoking in pregnancy is sufficient to avoid smoking-related health problems for mother and child</li> <li>It is OK to resume smoking after birth</li> </ul>	<p>Educational messages. Pre-empt this topic in smokers and non-smokers who are pre-diabetic or diabetic, and first-time mothers who may be nervous about birth.</p>
<ul style="list-style-type: none"> <li>Only new-borns or young children are susceptible to the harms of ETS</li> </ul>	<p>Encourage cessation over reduced consumption (unless using NRT). Explain about compensatory smoking. A hand-held CO meter may assist in monitoring compensatory smoking and motivating quit attempts.</p>
<ul style="list-style-type: none"> <li>Smoking is OK in the car if children are not present (Gould <i>et al.</i> 2013c, 2015c)</li> </ul>	<p>Emphasise the benefits of staying smoke-free for the mother herself and the child. Build efficacy for abstinence.</p>
<p>4. <i>Dangers of quitting and treatment</i> (Gould <i>et al.</i> 2013c, 2015c)</p> <ul style="list-style-type: none"> <li>Quitting can bring on cancer or other serious illnesses</li> <li>NRT could make you want to smoke more, and NRT is harmful for the baby</li> </ul>	<p>Educational messages emphasising that the ETS risks are high for all children (and everyone else including pregnant non-smoking mothers); make the effects more tangible.</p>
	<p>Educate on the concept of third-hand smoke particles and promote total smoke-free environments.</p>
	<p>Explain the timeframe of cancer induction; that is, cancer can have been induced many years before it is diagnosed and that quitting does not bring on cancer – it is always better to stop smoking.</p>
	<p>Address individual concerns about NRT and explain how NRT works. Provide enough knowledge so Indigenous women can make an informed decision about taking NRT and can compare the risks to continued smoking.</p>

fast-acting oral form (Brose *et al.* 2013; Chamberlain *et al.* 2013; Coleman *et al.* 2015). NRT is considered safe to use for the pregnant mother and foetus, according to the latest Cochrane review (Coleman *et al.* 2015). Counselling in pregnancy produces a modest 4–6% increased quit rate compared with no counselling (Chamberlain *et al.* 2013). Adding NRT to counselling can triple the effectiveness of counselling alone (Pollak *et al.* 2007).

In a randomised controlled trial in a clinical setting, nicotine patches were efficacious at 4 weeks compared with placebo (21.3 v. 11.7%), but adherence was problematic after this time point (Coleman *et al.* 2012). In a large non-randomised clinical sample (3500 participants), transdermal NRT combined with an oral form doubled the quit rate compared with no medication or monotherapy (OR = 1.93) (Brose *et al.* 2013). The accelerated nicotine metabolism in pregnancy gives a physiological basis for higher doses being required (Dempsey *et al.* 2002). Even short periods of abstinence are beneficial for foetal growth.

Cutting down, as a harm reduction or quitting strategy, in pregnancy is reported in other populations (Graham *et al.* 2014). Owing to the risk of compensatory smoking, health gains are only realised if cutting down is accompanied with NRT. Preliminary studies involving pregnant smokers suggest that using NRT while cutting down is safe (Berlin *et al.* 2014), although pre-cessation use has not been addressed in formal guidelines (Zwar *et al.* 2014).

Counselling and pharmacotherapy are effective in Indigenous smokers generally (relative risk, RR 1.43; 95% CI 1.03–1.98) (Carson *et al.* 2012a); however, it is unclear what approaches are effective for Indigenous women in pregnancy (Passey *et al.* 2013). Indigenous pregnant women sometimes interpret the discomfort they experience from ‘cutting down’ or quitting as psychological stress, and are unaware that these symptoms could be nicotine withdrawal, so educational approaches may be required (Passey *et al.* 2012a; Gould *et al.* 2013c). Similar considerations are seen in other vulnerable populations. Pre-cessation NRT may provide a bridge between cutting down and complete cessation, possibly assisting to ameliorate stress-inducing symptoms and increasing physical and psychological capabilities. However, it is not known how acceptable NRT is to Indigenous pregnant smokers (Gould *et al.* 2013b, 2013c). Educational and social marketing approaches could promote the use of NRT, increase client understanding about why NRT is safer than smoking in pregnancy and how it works (Gould *et al.* 2015a).

Translational strategies relate to service provision on the outer ring of the BCW and are recommended in primary care. Clinician training and enabling providers to offer evidence-based therapies can achieve these approaches. Intentions to change smoking behaviour need to become a reality by health professionals giving practical assistance to enable and empower pregnant women to quit smoking. Best practice includes a range of behaviour change techniques addressing the psychosocial issues that Indigenous women encounter. Enhancing self-efficacy may lead to more quit attempts, but these attempts also need to be of a ‘better quality’ in order to give people the best chances to successfully quit. In the general population, it has been shown that providing practical

assistance, such as offering NRT, has a significant influence on cessation outcomes (Aveyard *et al.* 2012).

### **Systemic barriers to accessing evidence-based cessation methods and how they can be addressed**

Several studies draw attention to the barriers for Indigenous pregnant smokers to receiving evidence-based therapies (Passey *et al.* 2012b; Gould *et al.* 2013b; Passey *et al.* 2013; Gould 2014). Barriers that are largely remediable and should be targeted strenuously include lack of knowledge and expertise by clinicians, lack of access to culturally appropriate programs and lack of access to subsidised oral and combination forms of NRT for pregnant women. These barriers impinge on individuals’ capacity, opportunity and motivation to change, as indicated by the three central segments of the BCW. In NSW, a targeted Quit For New Life program uses a translational approach by providing a family-orientated program, cessation support for Indigenous pregnant mothers and free oral forms of NRT (currently under evaluation).

#### *Clinician barriers*

Clinicians commonly have concerns about prescribing NRT for pregnant women, and may miss opportunities to intervene. UK general practitioners (GPs) reported safety concerns and low confidence in prescribing NRT, despite the majority agreeing that NRT was safer than smoking when pregnant (Herbert *et al.* 2005). In Australia, knowledge of cessation strategies is poor among Australian antenatal health providers caring for Indigenous women (Passey *et al.* 2012b). Some health workers considered it not worthwhile to offer cessation advice to Indigenous pregnant women due to low perceived success (Passey *et al.* 2012b). Preliminary findings from Australian GPs working in Indigenous health show a similar lack of optimism and inadequate follow up (Gould *et al.* 2015e). A study of Indigenous smokers of reproductive age showed that 40% of smokers, who had consulted their health provider about quitting, rated the assistance they received as poor, thus limiting their physical opportunity and capacity for change (Gould *et al.* 2015c). Researchers conclude that the support offered to Indigenous women has hitherto been insufficient, and 38% are offered no assistance (Passey and Sanson-Fisher 2015).

Improving the skills of ante-natal and primary care providers for smoking cessation, through training and incentivisation, has the potential to improve Indigenous health and cessation outcomes (Carson *et al.* 2012b; Passey *et al.* 2013; Passey and Sanson-Fisher 2015). GPs and multidisciplinary teams have opportunities to engage with Indigenous women when confirming pregnancy, and often provide shared antenatal care for rural and remote Indigenous women.

#### *New guidelines*

The recently updated Royal Australian College of General Practitioners (RACGP) guidelines include combination NRT if required in pregnancy (Zwar *et al.* 2014). The management of smoking cessation in Indigenous pregnant women can be complex. Concern about the lack of knowledge of effective cessation approaches specific to Indigenous pregnant women led

to the recent publication of interim pragmatic guidelines (Gould *et al.* 2015a, 2015b). This approach is aimed at primary healthcare professionals. These guidelines, based on an ABCD mnemonic (Ask, Brief advice, Cessation support, Discuss the psychosocial context), encourage a proactive translational approach. The ABCD approach includes culturally competent behavioural counselling using the 'teachable moment' of pregnancy (McBride *et al.* 2003), a visual aid to educate on the issue of stress and withdrawal symptoms, a quit plan to engage the client in goal setting and problem-solving, and an algorithm to guide the expedited use of NRT including combination forms if required (Gould *et al.* 2015a).

### Lack of subsidies

A significant barrier to capability and opportunity for smoking cessation in pregnant women, and hampering the service provision by providers, is the lack of subsidy for oral or combination NRT on Australia's Pharmaceutical Benefits Scheme (PBS). The Australian Association of Smoking Cessation Professionals has lobbied for 3 years to correct this inequity. Access would be facilitated, should the PBS agree to extend the NRT listing. So far, pharmaceutical companies are reluctant to supply oral NRT to the PBS or apply for it to be listed – an essential first step for putting in an application for listing extension. The Australian Government may need to consider alternatively funded supplies under a scheme tailored specifically to this vulnerable population.

The views of Indigenous women should be further explored to determine the most effective approaches. Such a study could determine what support and counselling techniques would be preferred, and who should deliver them; and also assess willingness to use evidence-based approaches, such as NRT in pregnancy.

Primary care approaches that could be strengthened include counselling using behaviour change techniques known to be effective in pregnancy, routine discussion of the psychosocial context for smoking, educational approaches to improve health promotion messages, appropriate use of NRT in pregnancy, culturally competent practices, and following up women throughout their term. These approaches can be improved by investing in training for GPs and other health professionals in primary care settings, who have contact with pregnant women from the earliest stages of their pregnancies and routinely consult them in their reproductive years. Training could up-skill providers in culturally competent approaches, aid the translation of evidence into action and promote the uptake of evidence-based guidelines.

### Conclusion

Pregnancy is both a risk for persistent smoking and an opportunity for behaviour change in Indigenous Australian women. Indigenous women, however, face intrinsic and extrinsic barriers in accessing evidence-based cessation therapy during pregnancy, including the lack of suitable services and access to NRT, and few culturally appropriate programs. Areas for immediate action have been outlined to refine anti-tobacco messages and provide cessation support, with reference to the BCW. These approaches have potential

to hasten the reduction in prevalence of smoking among Indigenous pregnant women, and aid in achieving state and national Indigenous health goals.

### Conflicts of interest

No conflicts of interest to declare.

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