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A review of the barriers preventing Indigenous Health Workers delivering tobacco interventions to their communities

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Abstract

Objective: To review available literature addressing the issue of whether smoking status of Indigenous Health Workers (IHWs) impedes provision of health information about smoking tobacco to their communities.

Method: Databases were searched for publications that examined IHWs' smoking status or quit support programs for IHWs. Studies were categorised as reviews and commentaries, intervention studies or descriptive research. **Results:** Fourteen studies met inclusion criteria. Overall, the literature suggests that IHWs' smoking status is a barrier. However, the poor quality of most studies weakens the evidence for this conclusion. The issue of IHWs smoking status as a barrier is peripheral to all but two of the studies. Literature cited and reviewed was often not exhaustive and relied on only a few preceding empirical studies. Most studies were unclear about whether IHWs' views were reported as distinct from views of health staff in general.

Conclusions and implications: The recent COAG investment to Tackling Smoking is an important contribution to Closing the Gap in the health of Indigenous Australians. However, there remain potential barriers faced by IHWs that may undermine efforts to reduce Indigenous smoking. Overcoming these barriers and assisting IHWs to quit smoking may provide an opportunity to address high rates of smoking in Indigenous communities. Further research is required with a balance between descriptive research to assess the issue and intervention research to address it.

Keywords

preventing, indigenous, communities, their, interventions, tobacco, delivering, review, workers, barriers, health

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A review of the barriers preventing Indigenous Health Workers delivering tobacco interventions to their communities

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The general Australian population has experienced a steady decrease in smoking prevalence over the past 30 years to less than 20% in 2004 with a target set for less than 9% by 2020.¹ Tobacco use in Indigenous Australians is disproportionately higher with approximately 51% of Indigenous men and 47% of Indigenous women reporting regular smoking.² These high levels have changed little since the mid-1990s.³ In some remote communities, for example, in Arnhem Land in the Northern Territory, a number of studies have documented rates of between 68%⁴ and 83%⁵ in men and between 60%⁴ and 73%⁶ in women. These very high rates have also remained unchanged since the mid-1980s.⁵

Most tobacco interventions such as individual support, counselling and public education, in mainstream populations have not been available or rigorously evaluated in Indigenous communities.

Recent COAG investments to 'tackle smoking'⁷ are currently being implemented to address the high rates of smoking in these populations. Implementation will include workforce development, social marketing and the employment of tobacco workers.

Indigenous Health Workers

Australian Indigenous Health Workers (IHWs) are usually residents and members of the community they work in, and therefore immersed in the local culture.^{8,9} It is widely recognised that IHWs are best placed to address tobacco issues in their communities.¹⁰ It is also reported that IHWs are the frontline workers in a critical role to provide health information and education to the community.¹¹ Therefore it is imperative that IHWs are skilled and confident to deliver tobacco information and/or quit support in order to adequately address very high and persistent rates of smoking.

Some of the peer-reviewed literature expresses a view that smoking by IHWs is a barrier for them to provide tobacco information and quit support to the community generally and to individual smokers.¹⁰⁻¹⁷ However, the literature providing evidence to supporting this view has not been systematically reviewed. Some important questions arise:

What are the barriers preventing IHWs from offering tobacco information and/or quit support?

What is needed to support IHWs to quit if it is identified that their smoking is impeding their ability to carry out their role as a health service provider to the fullest extent?

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Results: Fourteen studies met inclusion criteria. Overall, the literature suggests that IHWs' smoking status is a barrier. However, the poor quality of most studies weakens the evidence for this conclusion. The issue of IHWs smoking status as a barrier is peripheral to all but two of the studies. Literature cited and reviewed was often not exhaustive and relied on only a few preceding empirical studies. Most studies were unclear about whether IHWs' views were reported as distinct from views of health staff in general.

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Key words: Indigenous health, Indigenous population, tobacco, smoking, Indigenous Health Workers.

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This paper examines the literature regarding the barriers for IHWs and ways to overcome them.

The literature review focused on studies which:

- investigated the smoking status of IHWs in Australia and whether IHWs smoking is a barrier to service provision
- included reports of IHWs involved with quit support programs specifically who were delivering tobacco information and/or quit support to the community.

Methods

Data sources and search terms

Databases searched included Informit, Medline, Pubmed, PsycINFO, CINAHL and Aboriginal and Torres Strait Islander Bibliography. Government reports obtained through professional networks with other Indigenous Australian researchers were also examined. Reference lists of all publications found were searched to ensure that all potential sources of literature were collated and analysed.

Study selection and data extraction

Studies were included if IHWs smoking status was specifically examined or if there was mention of IHWs delivering tobacco information and/or quit support. Only studies conducted in Australia were included in the review as there were no clear international counterparts for Australian IHWs. Reports, papers or manuscripts meeting inclusion criteria were examined by authors MT and AC and agreed by consensus.

Data synthesis

Following an established approach to classifying Indigenous health research publications^{18,19} the included items were categorised as: reviews and commentaries, intervention research or descriptive research. The studies retrieved were arranged in these categories and summarised providing a description of the study design, the number and kinds of participants involved and comments on each study's main features and limitations. The nature of any comment or conclusion reached in the study about IHWs smoking being a barrier to providing quit support and/or information is also noted in Table 1.

Inclusion and exclusion criteria

Confined to 'Australia' the search terms:

'Indigenous Health Workers' combined with 'smoking' and 'Aboriginal Health Workers' combined with 'smoking' and 'Indigenous Health Workers' combined with 'tobacco' and 'Aboriginal Health Workers' combined with 'tobacco'

retrieved 243 peer-reviewed citations from the databases searched. Of these 52 were duplicates, leaving 191 unique citations. Of these only seven met the inclusion criteria. The reference lists of published and unpublished reports together with citations provided by professional contacts provided a further seven citations meeting inclusion criteria. The 14 studies meeting inclusion criteria included three reviews/commentaries, three intervention studies and eight items of descriptive research.

Results

Reviews/commentaries

In their report on the 1995 Tobacco Control Summit, Andrews et al.²⁰ noted the importance of including IHWs who smoke in quit smoking programs, suggesting that to reduce smoking without IHW participation, service provision for smokers in the community wanting to quit could be "seriously impeded".

The commentary by Roche and Ober¹⁶ considers a harm minimisation versus abstinence approach to address tobacco-related issues in Indigenous Australians. From inspection of this paper's reference list, this publication appears to be the first to state the assertion that IHWs smoking status may be a barrier to them providing tobacco information and/or quit support to others. One descriptive study, namely Andrews et al.¹⁰ is cited as evidence to support the assertion. Roche et al.¹⁶ also appear to be the first to recommend smoking-cessation training for IHWs specifically to enable IHWs who were smokers to overcome their reluctance to raise the issue of smoking with the community.

A more recent literature review about Indigenous smoking commissioned by the South Australian Department of Health,²¹ found that health staff in general may be uncomfortable when providing tobacco information if they are smokers and may be viewed by clients as "hypocritical". This review appears to rely on the earlier commentary by Roche and Ober¹⁶ which, as already pointed out, relied on the work of Andrews et al.¹⁰ as supporting evidence.

Intervention studies

Through the development and implementation of a brief intervention training program Harvey et al.¹² concluded that "workers who smoked were reluctant to talk to clients about giving up smoking". This study involved a sample of 34 health staff as participants using in-depth interviews combined with pre- and post-training questionnaires and focus groups. Although reference is made to IHWs throughout this study, the term is not consistently used. On occasions, the term 'health worker' appears to include IHWs as well as other health professionals generally. Elsewhere in the article, the terms 'health practitioners', 'workers' and 'health staff' were used. This ambiguity in the language used to identify health staff involved in the study makes it unclear whether the views reported in the publication are those of IHWs specifically.

The study by Mark et al.²² implemented a quit support program collaboratively between a Community Controlled Health Service in an urban community and a mainstream health advocate. The study describes the delivery of a tobacco cessation program that included community members and IHWs. The sample included 115 participants. IHWs were included as participants, however there was no mention of how many participated. The program offered subsidised pharmacotherapies, namely nicotine replacement therapy, for the first three weeks of the program in a group support framework to discuss behaviour changes needed for successful quitting. This program achieved successful quit attempts (defined as three months abstinence) for 6.1% (n=7) of participants. This study was not incorporated into the South

Table 1: Is IHWs' smoking status a barrier to them assisting the community to change?

Type of research	Authors	Method	Study design	Sample	Barrier Yes/No	Main features	Limitations
Review/ Commentary	Andrews et al. 1996 ²⁰		Report	–	Inconclusive	<ul style="list-style-type: none"> IHWs should be involved in tobacco programs irrespective of smoking status Cessation training may increase IHWs to rethink their own smoking status Coercing IHWs to quit may compromise their participation 	
	Roche et al. 1997 ¹⁶		Opinion paper	–	Yes	<ul style="list-style-type: none"> First time the assertion is clearly stated Considers harm minimisation approach vs abstinence Recommends cessation training for IHWs 	<ul style="list-style-type: none"> Relies on one study (Andrews¹¹) as main source of evidence
	Department of Health SA 2008 ²¹	Narrative analysis	Unpublished	–	Yes	<ul style="list-style-type: none"> Identified that community ownership and flexibility in delivery of cessation programs was important Identified need for further research into smoking and tobacco control 	<ul style="list-style-type: none"> Refers to work of Roche et al. as a main source. Did not refer to work of Mark et al.,¹⁸ same authors Did not refer to the work of West et al.¹⁹
Intervention	Harvey et al. 2002 ¹²	In-depth surveys and focus groups Pre and post questionnaires	Follow-up study	n = 34 health staff (24 – pre, 21 – post)	Yes	<ul style="list-style-type: none"> After receiving training health staff were more comfortable speaking with pregnant women Health staff stated they were thinking more about their own smoking with one participant attempting to quit. Workplace operational issues identified as impediments to implementation of brief interventions 	<ul style="list-style-type: none"> Views of health staff unclear with ambiguity and classification of roles
	Mark et al. 2004 ²²	Self administered questionnaire	Follow-up study	Quit smoking program n= 115 participants 6% or n= 7 abstinent for three months at follow-up	Inconclusive	<ul style="list-style-type: none"> Provision of subsidised NRT Interactive group support available for clients and IHWs Pathway for health staff to refer clients and themselves (IHWs) Two day training course for IHWs; brief interventions, health effects of tobacco, tobacco cessation, using pharmacotherapies 	
	DiGiacomo et al. 2007 ²³		Follow-up study	Program report Clients n=37	Inconclusive	<ul style="list-style-type: none"> Culturally appropriate programs implemented by IHWs in collaboration with non indigenous cessation counsellors Subsidised NRT, 32 quit attempts with 9% quit rate Relapse identified linked to stressful moments in clients lives Recommendations supportive of client needs 	

Type of research	Authors	Method	Study design	Sample	Barrier Yes/No	Main features	Limitations
Descriptive	Andrews et al. 1997 ¹⁰	Self-administered questionnaire	Cross sectional study	n=22 respondents from 41 people approached	Inconclusive	<ul style="list-style-type: none"> • First paper describing IHW smoking status • IHWs eager to undertake cessation training to address their own smoking • IHWs reported smoking status and previous quit attempts 	<ul style="list-style-type: none"> • Small sample size • Specific to study region, question applicability across jurisdictions
	West et al. 1998 ¹⁷	Surveys and focus groups	Cross sectional study	Surveys n=53 IHWs, eight other health staff two focus groups	Yes and No	<ul style="list-style-type: none"> • Specifies views of IHWs clearly • Provides evidence that IHWs were delivering tobacco information professionally and informally with clients, family and friends • Surveyed the community members • Views of participants documented clearly and concisely 	
Descriptive	Lindorff 2003 ¹³	Focus groups	Cross sectional study	51 focus groups n=275 participants community members n=124 health staff n=67	Yes	<ul style="list-style-type: none"> • Recommends taking into account all factors in health staff lives possibly impacting on why they smoke • Acknowledges high workloads of health staff, including IHWs • Recommendation to include screening in routine practice 	<ul style="list-style-type: none"> • Includes all health staff, not specific to IHWs views
	Mark et al. 2005 ¹⁴	Semi structured focus groups and self administered questionnaires	Cross sectional study	1 focus group n=4 participants Questionnaires n=98	Yes	<ul style="list-style-type: none"> • First study to consider barriers to quitting for IHWs • Stress, addiction, withdrawals, lack of support from family and friends • Demands on IHWs from community expectations community and non-Indigenous colleagues regarding their role. • Referral pathways for IHWs • Access to group support and subsidized NRT • Four participants successfully quit, • Provides evidence that IHWs were delivering tobacco information professionally and informally with clients, family and friends • 12 participants attended tobacco cessation training 	<ul style="list-style-type: none"> • Small sample size over a three year period
	QLD Health 2006 ¹⁵		Unpublished evaluation report	Health staff trained in Smokecheck across 37 sites in QLD, n=441	Yes	<ul style="list-style-type: none"> • Trained health staff in brief interventions using 'stages of change' model • Targeted all health staff servicing Indigenous communities. • A majority of participants were IHWs and Nurses • Increased health staff capacity and confidence in discussing smoking with clients 	<ul style="list-style-type: none"> • Ambiguity of term "health worker" • Lack of clarity of who stated smoking was a barrier for IHWs to provide tobacco information to the community

Type of research	Authors	Method	Study design	Sample	Barrier Yes/No	Main features	Limitations
	Adams et al. 2006 ²⁵		Cross sectional study	Self administered mailed questionnaires 9/18 organisations interviewed	Yes	<ul style="list-style-type: none"> Identified courses available for IHWs Four respondents identified a need to support AHWs to quit 	<ul style="list-style-type: none"> Small sample size
	Wood et al. 2008 ²⁴		Cross sectional study	In depth interviews and focus groups with community women (n=40) and IHWs (n=10)	No information provided	<ul style="list-style-type: none"> IHWs reluctant to discuss smoking cessation if it meant adding further stress/burden and could jeopardise working relationships with pregnant women Combination of smokers, former smokers and non-smokers 	
	Pilkington et al. 2009 ¹¹		Cross sectional study	Telephone interviews n=36	Yes	<ul style="list-style-type: none"> Articulated the views of IHWs specifically Identified the need to include further training/increase in capacity to provide quit support to clients, nicotine addiction IHWs association with smokers either professionally or personally may impede discussion of smoking with community Concerns with advising people like elders to quit smoking 	<ul style="list-style-type: none"> Sample size Minimal exploration of strategies that could support IHWs to address barriers

Australian Department of Health scoping study.²¹ Inclusion of this piece of evidence in the scoping study would have strengthened its recommendations aimed at addressing the potential barriers to service provision.

DiGiacomo et al.²³ delivered a smoking cessation program to the community it serviced to 37 clients. The program was targeted for clients of the service with staff also offered participation. It is unclear in the paper whether IHWs did in fact participate. However, it is evident that support came from IHWs in delivering the program. While there is no reference to IHWs' smoking status in this study, it clearly emphasises the importance of involving IHWs with smoking cessation programs. Reported in their paper a significant barrier to clients quitting was major stressful life events.

Descriptive studies

In what appears to be the first attempt to estimate prevalence of smoking among IHWs, Andrews et al.¹⁰ in one jurisdiction conducted a cross sectional study using self-administered questionnaires. The target sample was 44 potential respondents. Twenty-two IHWs participated and completed the questionnaires with two-thirds of these found to be smokers. The study pointed out that the extent to which smoking information is delivered in service provision may depend on IHWs' own use of tobacco, but was no more conclusive than this about smoking being a barrier for IHWs. This early study described the role of IHWs as a "privileged position" referring to their influential role in the community to encourage smoking cessation. This study also made

clear recommendations for training for IHWs, who were found to be keen to undertake it.

Through a series of telephone interviews and focus groups West et al.¹⁷ assessed the knowledge, attitudes and beliefs regarding smoking cessation and prevention among IHWs and other health staff in Far North Queensland. The sample included 53 IHWs and eight other health staff with two focus groups of 13 participants in total. This report concluded that, in both their professional and personal capacity, IHWs who were non-smokers tended to be more likely than smokers to speak to the community about smoking. A recommendation of the study was that employers should fund quit smoking programs for staff should the employer want to implement a no smoking policy. In focus groups the issue of the effectiveness of 'educators' who smoke was examined. The study concluded that IHWs' smoking should be a personal choice but that smoking in front of their clients was not regarded as acceptable. This study was also omitted from the South Australian Department of Health scoping study.²¹

Lindorff et al.,¹³ in a cross-sectional study, investigated community and health staff views about tobacco within the community-controlled sector using surveys and focus groups. The author of this study approached 76 services, 56 of which participated. Focus groups involved 124 community members and 67 staff members of the health services. This study concluded that extra support for IHWs may be required to assist them to quit due to the stressful nature of their work. Lindorff (2003)¹³ used the term 'health staff' to describe IHWs and other health sector employees

as a group making it difficult to distinguish IHWs' views from the collective view reported that IHWs' smoking is a barrier.

Mark et al.¹⁴ used self-administered questionnaires with 98 respondents over a period of three years and one focus group with four participants to identify potential barriers to IHWs providing tobacco information and/or quit support. This appears to be the first paper to document with direct evidence the issue of IHWs smoking status as a barrier to implementing tobacco programs or providing information to the community. The conclusion that smoking is a barrier is supported with sound evidence using a sample size comparable to those of other sound studies included in this review.^{11,12,23} Mark et al.^{14,22} developed, delivered and evaluated a quit smoking program that encouraged community and IHWs participation. This program, through a support group and subsidised NRT, offered weekly group support meetings, which included IHWs interested in quitting. IHWs were able to refer clients to the project while also participating to address their own smoking status. This study demonstrates IHWs willingness to participate and support such intensive programs where available.

The study by Wood et al.²⁴ assessed Indigenous women's knowledge, cultural contexts and barriers to smoking cessation. Through focus groups and in-depth interviews, 40 Indigenous women and 10 IHWs provided their views and experiences. IHWs stated that due to the complexities of some clients' lives, smoking cessation was a low priority. The issue of IHWs own smoking status was not discussed. Further, IHWs view of their key role with respect to their clients was to be as supportive as possible and build strong relationships with the client described as a "paramount" concern with the subject of tobacco usually not broached.

The most recent relevant publication Pilkington,¹¹ described knowledge, attitudes and practices regarding smoking cessation among IHWs. The study used telephone interviews with 36 IHWs participating and concluded that smoking was a barrier to providing support and/or information to the community. The IHWs interviewed reported that even IHWs who are associated with smokers, for example, among their partners or family members, are reluctant to provide tobacco information or quit support in the community. The overall outcome in this study was that IHWs own smoking was a barrier to service provision.

Discussion and conclusions

Key features identified in this review are listed in Table 1. In summary, a common theme reported in the literature is that IHWs who smoke tobacco face a barrier to providing tobacco information and/or quit support to the community.^{10-14,17,20,25} Prior to completing this review it was unclear where this assertion originated and what the evidence was that supported it. A number of studies appear to be repeatedly cited by later studies in what is a very limited evidence base.^{10,16} The issue of IHWs' smoking status being a barrier is peripheral to all but two studies.^{10,14} Some of the literature meeting the inclusion criteria for this review had omitted relevant studies.^{14,17} Also, in some studies, the cited studies were not fully evaluated for the adequacy of their methods. Most

studies were unclear about whether IHWs' views were recorded as distinct from the views of health staff in general. The studies used a range of methods and approaches and included different numbers and kinds of participants recruited in a variety of ways, i.e. there is no standard approach to providing evidence about the issue. There is a preponderance of descriptive studies.

Overall, the evidence provided in the studies reviewed here appears to indicate that IHWs' own smoking may be a barrier preventing them from providing quit support and/or information to their communities. However, with a limited number of studies tending to support this conclusion, the evidence-base cannot be regarded as strong. The following limitations of the available studies should be considered.

Where reported, sample sizes were generally small, ranging from 22 to 98 participants^{10-12,14} with two larger samples, one with 446 participants^{13,15} and another 441 participants.^{13,15} However results generally cannot be compared across jurisdictions outside each specific study site.

The frequent and general use of the term 'health worker' creates ambiguity. For example in one study¹², interviews were conducted with doctors, nurses, allied health professionals and administration staff. The term 'health worker' is used as a general term in the published literature describing health staff as a group, making it difficult to draw conclusions specifically about IHWs.

Workforce development was identified as a need and recommended by eight publications^{10-12,14,15,17,21,25} with specific recommendations regarding workforce development including training, mostly of health staff in brief interventions. The type of training recommended varied, with no clear consensus over the 14-year time span from 1995-2009. The provision of training was suggested as a way for IHWs to reassess their own smoking status.¹² Indeed Andrews et al.¹⁰ reported that IHWs were eager to undertake cessation training to assist address their own smoking. Interestingly, three studies reported quit attempts by IHWs who participated in the training offered. However, these authors caution that IHWs may have mixed feelings about quitting which may lead to adverse effects on program outcomes if IHWs refuse support if coerced when they are not ready to quit themselves.

Recently, Pilkington¹¹ recommended that training beyond brief intervention is required and that quit support training should include information about addiction, motivational interviewing and the use of pharmacotherapies.

Recommendations were made in two publications to increase routine screening practices of clients in clinical settings.^{12,13} It should be noted that IHWs in two studies^{14,17} reported that they were already delivering tobacco information in a professional capacity through their employment as well as informally within their family group.

Workload and the responsibilities that IHWs carry in their communities as well as within the workplace were reported as a common barrier making it difficult for IHWs to quit themselves.^{13,14} Stressors including high expectations from the community and from colleagues were described as adding to the stress that IHWs cope with on a daily basis.^{13,14}

IHWs are trained with formal qualifications and are health professionals in their own right.¹⁰ Throughout the literature the role of IHWs has been referred to as pivotal. Further research is clearly needed to document how many smoke, whether they are interested in quitting and what they need by way of support to quit if smoking is an issue for them.

More than 10 years ago, West et al.¹⁷ identified the need for workplace quit support programs. However, there remains a lack of published evidence that such programs have been implemented or evaluated, which means that an important opportunity for reducing the impact of smoking in Indigenous Australians may have been overlooked.

The work by Mark et al.¹⁴ seems to be the only study that has provided comprehensive quit support for IHWs. This is an important approach. In order for IHWs to be able to provide information and/or quit support they require the confidence to be comfortable in delivering it. Building this confidence could be supported in two ways: i) delivery of tobacco information/quit support training so that IHWs are better informed about providing it and, ii) those IHWs that smoke should be supported, at their discretion, to cut down or quit through holistic support programs.

This literature review has identified a range of study types and approaches, with those of a descriptive nature being the most common. While there is a place for descriptive studies it is important to note that evidence-based practice in this important area may be constrained by the lack of unevaluated intervention programs.

Conclusion

This literature review has demonstrated a need for practical quit support to assist IHWs who want to quit. Further research is needed to: i) identify the barriers and ways to overcome them that will enable IHWs to provide tobacco information/quit support to the community, ii) investigate ways to assist IHWs to address their own smoking status, iii) identify what IHWs need in order to feel comfortable to provide tobacco information and/or quit support to the community, iv) review the current training for IHWs and extend it beyond brief intervention to include education about addiction, motivational interviewing and the use of pharmacotherapies to support clients to quit. Additionally, training in case management may also assist to increase IHWs knowledge in supporting community members wanting to change their smoking behaviour. A key deliverable is to ensure follow up and support is provided with programs suited to Indigenous communities' specific needs, especially recognising the diversity of cultural and language groups.

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