Tobacco interventions for Indigenous Australians: a review of current evidence

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Australia is considered a world leader in tobacco control. National social marketing campaigns, supported by effective policies and programs, have contributed to a reduction in smoking rates from 35% of the adult population in the early 1980s to around 21–25% in 2001. This success, however, has not extended to Australia’s Aboriginal and Torres Strait Islander populations, who continue to experience significant morbidity and mortality related to smoking. Current estimates indicate that more than 50% of the Indigenous population are regular smokers – more than twice the rate of non-Indigenous Australians.

The comparatively low socio-economic status (SES) of most Indigenous communities is one of the major contributing factors to high smoking rates. As with the non-Indigenous population, people who are unemployed, who did not finish Year 12 or who do not own their own homes are more likely to be smokers. Many Indigenous people also live in substandard, overcrowded housing, which is more likely to expose children and non-smoking adults to tobacco smoke. Contributing to this is the ‘normalisation’ of tobacco use within Indigenous communities. While smoking has become much less socially acceptable among the general Australian community, this is not the case in many Indigenous communities (both rural and urban). Within many Indigenous communities, smoking continues to play a key role in social interaction and relationship building. This point was reinforced by Lowe et al. who, in their study of Indigenous secondary school students, found that the major influence on smoking behaviour among Indigenous young people was whether or not their friends and family smoked. Similarly, in a study of the efficacy of brief intervention training with Indigenous health workers, Harvey et al. identified high levels of community acceptance of smoking as a major barrier to health workers implementing ‘brief intervention’ smoking cessation strategies with patients.

Abstract

Issues addressed: This paper reviewed effective interventions for increasing smoking cessation among Indigenous Australians and identified gaps in evidence regarding smoking cessation interventions for Indigenous Australians.

Methods: A systematic review of academic literature and reports from government and non-government agencies published between 2001 and 2007 was conducted in early 2008. Initial findings from the review were tested using 16 in-depth interviews and two half-day workshops with practitioners and researchers working in the area of Indigenous health.

Results: Seven Australian programs for which there had been well-designed, rigorous evaluations were identified. A further four programs were identified that had limited evaluation information available. These studies provide evidence that face-to-face counselling or quit support used in conjunction with nicotine replacement therapy (NRT) is likely to increase quit rates among Indigenous people. Training Aboriginal Health Workers to provide brief smoking cessation intervention with patients is also likely to contribute to increased quit rates. Evidence regarding other interventions is more limited.

Conclusions: Evidence indicates that smoking cessation strategies targeted at individuals, such as NRT and/or counselling, may be effective smoking cessation aids for Indigenous Australians. However, there is no evidence regarding interventions likely to be effective in encouraging more Indigenous Australians to access these quit support strategies.

Key words: Indigenous, tobacco, smoking cessation, programs, evidence-based practice.

So What

There is a need for greater investment in research to build the body of evidence on interventions that are likely to be effective in increasing motivation to quit among Indigenous communities and in challenging the cultural acceptance of smoking across Indigenous communities as a whole.
Contrary to common perceptions that Indigenous Australians have low levels of knowledge about the harmful effects of tobacco use, recent evidence suggests that this is not the case. The National Aboriginal and Torres Strait Islander Tobacco Control Project found a high level of general knowledge among members of Indigenous communities and Aboriginal health workers about the major health effects of tobacco smoking, such as lung cancer. However, knowledge about more complex harmful effects is low. For example, understanding about the relationship between cigarette smoking and diabetes is poor. Most importantly, awareness of the health damage caused by smoking does not necessarily translate into desire to quit or quit attempts.

With regards to tobacco control in Indigenous communities, the National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003–2013 states that mainstream strategies should be inclusive of Indigenous Australians. However, previous research has shown that tobacco control programs for Indigenous Australians have been consistently under-resourced. Tobacco is often seen as a lower priority than other health or illicit drug issues for Indigenous people. A systematic review of tobacco interventions targeting Indigenous people was conducted by Ivers in 2001. Ivers found that there was only a small number of smoking cessation and prevention interventions for Aboriginal and Torres Strait Islander populations and, where interventions had been documented, there was virtually no rigorous assessment of their effectiveness. Ivers also found little evidence of whether tobacco interventions found to reduce smoking within other populations might be effective for Indigenous people.

Working within these limitations, Ivers assessed the applicability of each of the documented tobacco interventions according to the type and quality of evidence, using the National Health and Medical Research Council (NHMRC) guidelines. Three major areas of intervention were identified:

- primary interventions – such as advice, programs, quitlines and brief interventions provided in primary health care settings,
- community interventions – such as general community campaigns, media campaigns, school based education program and health promotion activities,
- legislative interventions – such as banning smoking in public areas, advertising control, mandatory health warnings on packaging and restricting the sale of tobacco to minors.

Ivers’ central conclusion was that a great deal more research and evaluation of interventions targeting Indigenous populations would be required to effectively reduce rates of smoking and smoking-related illnesses.

The aim of the present project was to review recent (2001–2007) evidence regarding tobacco cessation and prevention programs for Indigenous Australians. This review updates Ivers’ findings with evidence from studies published since her 2001 review. The method established by Ivers was used for this review to ensure results are comparable with Ivers’ findings and that areas where there is new evidence can be easily identified. The project was commissioned by the Strategic Planning, Policy and Research Branch, Policy and Intergovernment Relations Division, of the South Australian Department of Health; the research was undertaken by the Social Planning and Social Research division of consulting firm Urbis.

Throughout this article the word Indigenous is used to refer to Australian Aboriginal and Torres Strait Islander people. No disrespect is intended.

**Method**

Literature published between 2001 and 2007 was sourced using keyword searches of the following electronic databases: Medline, APAIS Health (Australian Public Affairs Information Service), CINAHL (International Nursing Literature), Rural and Remote Health, Australian Family and Society Abstracts, Cochrane database, Psychlit, Social Sciences Citation Index, Academic Search Premier, Web of Science, Informit e-library, JSTOR.

In addition to academic databases, material was identified via a targeted internet search using ‘google.com’ search engine and a search of key websites including: Quit; Australian Indigenous Health InfoNet; National Heart Foundation; Anti-Cancer Foundation of South Australia; Aboriginal and Torres Strait Islander Clearinghouse; DrugInfo Clearinghouse; the Australian Institute of Health and Welfare; state/territory health departments; and the Centre for Excellence in Indigenous Tobacco Control. Requests for literature were also made from relevant organisations and researchers including: Queensland Health; the Centre for Excellence in Indigenous Tobacco Control; the South Australian Department of Health; and Quit South Australia.

Keyword searches included combinations of the following words and terms: Indigenous, Indig*, Aboriginal, Aborig*, smoking, smoke*, “quit smoking”, quit, “tobacco control”, tobacco, smoking cessation, smoking prevention, health promotion, health, programs, strategies, resources, program evaluation.

Some literature was also sourced on tobacco programs for Indigenous people in New Zealand, the US, Canada and Northern Europe. However, only the Australian results are presented here as it was not possible to ascertain the extent to which international programs would be replicable in the Australian context.

A narrative review of a broad range of literature relating to Indigenous tobacco use was undertaken. From this,
publications reporting on interventions for Indigenous Australians were identified and sorted into categories based on the intervention type (legislative, NRT, brief interventions, health worker training and so forth). Only studies published between 2001 and 2007 were included.

Each study was scored according to the NHMRC\textsuperscript{12} designation of levels of evidence scale (see Table 1). This scale was used in order to ensure the findings of this review are consistent with those of Ivers' 2001 review. However, application of the NHMRC levels of evidence to population health interventions has some limitations. The highest levels of evidence in the NHMRC scale are given to meta-analyses of randomised controlled trials (RCTs) or single RCTs. Ethical and practical considerations mean it is generally not possible to evaluate population health initiatives using RCTs, making it unlikely such initiatives will achieve a high level of evidence. Hence, use of this scale may undervalue or ignore the validity of some studies in the areas of health promotion or population health. No studies included in this review were rated higher than a level III-3. This does not necessarily reflect poor quality of research in this area. Rather it is indicative of research methodologies appropriate to the evaluation of health promotion initiatives.

The initial findings of the narrative review and table of evidence were discussed with a range of practitioners and researchers working in the field of Indigenous tobacco control. Sixteen interviews (face-to-face or telephone) were conducted with practitioners and researchers working in the field of Indigenous tobacco cessation or prevention. Interviewees were located across Australia, working in organisations including Quit South Australia, Cancer South Australia, School of Public Health and Tropical Medicine at James Cook University, the Menzies School of Health, Quit Victoria, the Centre for Excellence in Indigenous Tobacco Control, the Cooperative Research Centre for Aboriginal Health and other government health agencies. Two workshops were also held with a range of practitioners and researchers working in the field of Aboriginal health, health promotion or smoking cessation in South Australia. The preliminary findings of the review were presented at these workshops and feedback was sought regarding the barriers to and opportunities for implementing a smoking cessation program for Indigenous people and possible ways forward. Representatives from the following agencies attended the workshops:

- Quit SA,
- Aboriginal Health Council of South Australia,
- Mental Health Unit, South Australian Department of Health,
- Aboriginal Health Division, South Australian Department of Health,
- Drug and Alcohol Services, South Australian Department of Health,
- Health Promotion Branch, South Australian Department of Health,
- South Australian Aboriginal Health Partnership, South Australian Department of Health,
- Department of Premier and Cabinet, Aboriginal Affairs and Reconciliation Division,
- Cancer Council of South Australia,
- Adelaide University,
- Children, Youth and Women's Health Service, South Australia,
- Second Storey Youth Service, South Australia.

Based on information from published evidence and feedback from the telephone interviews and the stakeholder workshops,
Table 3: Published reports of tobacco intervention programs for Indigenous Australians.

<table>
<thead>
<tr>
<th>Author</th>
<th>Intervention</th>
<th>Quality of Type/s</th>
<th>Description of study evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queensland Health (2007)</td>
<td>Brief intervention program</td>
<td>III-3</td>
<td>Pre and post evaluation with health workers and clients. Program was effective in increasing workers’ self-efficacy and confidence in brief intervention. Brief intervention increased clients’ motivation to quit and reduced daily cigarette intake. Published as a report.</td>
</tr>
<tr>
<td>Adams et al. (2006)</td>
<td>Short course on smoking cessation</td>
<td>IV</td>
<td>Pre and post evaluation found the program achieved a 19% quit rate. Program success attributed to the creation of culturally appropriate space to run the course, and linking with a GP who could help develop a nicotine management plan. Published in medical literature.</td>
</tr>
<tr>
<td>DiGiacomo, M and Davison, J (2007)</td>
<td>NRT Support</td>
<td>IV</td>
<td>Smoking cessation counselling/NRT program held in a primary health care centre at a suburban Aboriginal Medical Service in Western Sydney. Evaluated using pre and post Fagerstrom Scale. A quit rate of 9% of participants was achieved. Weekly dispensing of NRT encouraged ongoing participation in counselling. Published in medical literature.</td>
</tr>
<tr>
<td>Ivers et al. (2006)</td>
<td>Legislation Community</td>
<td>IV</td>
<td>Study demonstrated remote area local stores comply with legislation regarding display of anti-tobacco advertising and restricting tobacco sales to minors except where there are vending machines. Stakeholder interviews were conducted at baseline and at 12-month follow-up. Stores were also observed. Published in medical literature.</td>
</tr>
<tr>
<td>Ivers et al. (2006)</td>
<td>Community</td>
<td>IV</td>
<td>Funding was provided to three Indigenous communities to run a range of community-based quit-smoking interventions. Pre and post surveys were used to measure changes in prevalence of tobacco use, changes in knowledge and attitudes to cessation. Knowledge of health effects of tobacco increased in intervention communities. Several papers published in medical literature.</td>
</tr>
<tr>
<td>Ivers et al. (2003)</td>
<td>NRT</td>
<td>IV</td>
<td>Free nicotine patches and brief intervention were given to a self-selected intervention group. The self-selected control group received brief intervention only. No participant completed the full course of NRT. Cessation rates were higher among the intervention group although overall cessation rates were low. Published in medical literature.</td>
</tr>
<tr>
<td>Harvey et al. (2002)</td>
<td>Training Aboriginal Health Workers in brief intervention</td>
<td>IV</td>
<td>In-depth interviews conducted with 31 stakeholders to evaluate one day training programs for health workers in conducting brief intervention with patients using motivational interviewing technique. Study found brief intervention will only be effective as part of a broader range of health promotion strategies. Published in medical literature.</td>
</tr>
<tr>
<td>Mark, A et al. (2004)</td>
<td>Quit smoking support groups Subsidised NRT</td>
<td>IV</td>
<td>Pre and post study of a quit course involving 115 members of a local Aboriginal community in the Illawarra and Shoalhaven region of NSW. Evaluation found that 6% of participants were abstinent from tobacco three months after the program. Published in medical literature.</td>
</tr>
<tr>
<td>Aboriginal Health Council of SA Inc. (2002)</td>
<td>Group Quit workshops for Aboriginal Health Workers</td>
<td>–</td>
<td>Pre and post evaluation of a quit workshop attended by Aboriginal Health Workers and cessation trial using NRT run through a community health centre. Sample size very small. Published in a report.</td>
</tr>
<tr>
<td>Gray et al. (2002)</td>
<td>Drug and alcohol awareness and self-esteem building program for Aboriginal school students (not tobacco specific)</td>
<td>–</td>
<td>Pre and post, case control evaluation used to measure outcomes of health promotion program. Quantitative results inconclusive due to problems with methodology. Qualitative findings suggest program helped build students’ self-esteem.</td>
</tr>
<tr>
<td>Robertson, J (2007)</td>
<td>Train health services in brief intervention Free NRT</td>
<td>–</td>
<td>A trial smoking cessation program for Indigenous people conducted in the Northern Territory’s ‘Top End’ successfully encouraged people to change their smoking behaviour, with many cutting down or not smoking at all for extended periods. Summary published online as brief report.</td>
</tr>
<tr>
<td>Young, D and Campbell, S (2007)</td>
<td>Subsidised NRT</td>
<td>–</td>
<td>A descriptive, observational study to trial the uptake of free NRT. Nine out of 26 participants reported they were smoke free six months after the program. Findings presented at conference.</td>
</tr>
</tbody>
</table>

Note: Refer to Table 1 and 2 for legend.
interventions for Indigenous Australians.10,11 This study identified seven Australian programs for which there had been well-designed, rigorous evaluations and reports that had been published between 2001 and 2007. A further four programs were identified that had limited evaluation information available (see Table 3).

Legislative strategies
Given the rate of smoking in Indigenous communities and that smoking is considered ‘normal’, individuals consulted in the course of this study suggested that the introduction of smoke-free policies for public places may be an important strategy for reducing the general visibility and acceptability of smoking among Indigenous people, but that tobacco regulations are less likely to be strictly enforced in rural and remote areas. This review did not identify any evidence regarding the extent to which legislation regarding smoke-free areas has been enforced in non-urban Aboriginal communities or the efficacy of smoke-free policies on reducing smoking rates among Indigenous Australians.

A study of tobacco sales through local community stores concluded that reducing sales to minors may be difficult to enforce in some remote Aboriginal towns that have only one store, as there is likely to be community backlash if a store’s tobacco licence is revoked. Interventions to support and enforce legislation through community stores may be most effective if staff are trained in enforcing the legislation as well as in the provision of point-of-sale quit-smoking information.13

Mass media campaigns
Evidence regarding the efficacy of mass media campaigns in reducing smoking rates among Indigenous Australians is limited. A recent study showed that Indigenous Australians have high levels of recall around the key messages of mainstream mass media campaigns.14 However, there is no information available on the efficacy of Indigenous-specific media campaigns.

School-based interventions
School-based tobacco prevention and cessation programs targeting Indigenous students have been developed in several areas. These programs are generally small in scale and evaluation is qualitative in nature and often only partially implemented. There is some evidence that school-based programs that incorporate experiential and participatory learning strategies – rather than a didactic education style – can increase awareness of substance abuse issues and reinforce health messages.15,16

Pharmacological interventions
There are some small studies that have examined the extent to which subsidised or free provision of NRT is an effective smoking cessation intervention for Indigenous Australians. One such program, that involved administration of free nicotine patches to Indigenous people, attained a quit rate of 10% among participants. While this is slightly lower than quit rates achieved in NRT programs with the broader population, it still indicates that NRT is an effective strategy for supporting Indigenous people to quit smoking if the cost barrier can be overcome. The study’s authors speculate that the program may have been more effective if it was delivered in a community setting rather than a primary health care service, as this may have presented a barrier to people not comfortable in this environment.11,17 No studies have looked at the efficacy of bupropion (marketed in Australia as Zyban) for Indigenous people.

Counselling
No evidence was found in this review regarding the effectiveness of face-to-face counselling alone for Indigenous people. However, one study achieved quit rates of up to 6% among participants using a combination of counselling programs with free access to NRT.18 Another study achieved a quit rate of 9%, the study’s authors concluding that dispensing NRT in weekly doses may encourage people to attend regular counseling.19

Further supporting the important role of counselling in tobacco cessation, DiGiacomo and Davison20 found that stressful life events can instigate relapse for some people. As such, access to ongoing counselling may be an important component of a successful cessation program, ensuring people have ready access to support for stress and general coping as well as quit strategies.

Group-based interventions
There is one study that evaluated the effectiveness of a quit smoking short course run through an Aboriginal Health Service. The course achieved a quit rate of 19 % and involved small group sessions, a quit management plan and access to NRT.20

Quitlines
No studies on the effectiveness of Quitlines for Australian Indigenous smokers were identified in this review. A 2002 study on the barriers to accessing smoking cessation programs for at risk populations indicated that Australian Indigenous people may be reluctant to utilise the mainstream Quitline due to a perception that non-Indigenous counsellors would not be able to relate to Indigenous smokers, or that counsellors would talk down to Indigenous callers.21 Quit Victoria has attempted to overcome this by providing cultural awareness training to Quitline counsellors and publicising the Quitline to Indigenous communities, along with reassurance that
Quotline counsellors have received some training. Despite this, anecdotal evidence suggests Quotline receives very few calls from Indigenous people in Victoria.

Training Indigenous health workers to give brief advice
Several barriers have been identified to the effective use of brief intervention with Indigenous clients including the high rate of smoking among Indigenous health workers and cultural values that endorse autonomy and seek to avoid confrontation. Brief intervention is often seen to be inappropriately telling people how to behave. The Queensland Government has developed a brief intervention training program, the SmokeCheck program, for health workers targeting Indigenous clients. SmokeCheck addresses some of the issues listed above by assisting health workers to feel confident in delivering key tobacco information in an appropriate way and increasing workers’ perception that delivering brief intervention is a legitimate part of their role as health workers. Pre- and post-evaluation of clients seen by health workers who had been trained using SmokeCheck, compared with a control group of clients who received no brief intervention, found SmokeCheck is effective in increasing clients’ motivation to quit smoking and reducing daily cigarette intake.

Interventions for pregnant women
There is some evidence that quit-support and brief interventions for women who are pregnant are effective with Indigenous women. However, practitioners and researchers consulted during this project cautioned about the limitations of these programs given that a large number of Indigenous women do not seek antenatal care in the first trimester.

Community interventions
Community interventions may involve a range of strategies such as sponsorship of sporting events, women’s quit support groups, the introduction of smoke free community places and/or a local media campaign. Methodologically, it is difficult to demonstrate the efficacy of community-based interventions in terms of quit rates, even with large scale interventions. However, one study of multi-component community interventions in remote Aboriginal communities found that they contributed to increased knowledge of the harmful effects of tobacco among community members and a trend toward a reduction in smoking.

Table 4 presents a synthesis of this evidence regarding the effectiveness of smoking cessation interventions for Indigenous Australians. This includes a summary rating of the applicability of the evidence about different cessation interventions to Indigenous people using a scale reported by Ivers (Table 2).

Conclusions
There was limited research in this area conducted between 2001 and 2007 and the findings of this review are consistent with that conducted by Ivers in 2001. However, in part due to research in which Ivers herself has been involved, the current review includes more studies on community-level interventions.

Evidence identified in this review indicates that, in general, smoking cessation strategies targeted at the individual level such as NRT and/or counselling, which are known to be effective smoking cessation aids for non-Indigenous people, are also likely to be effective for Indigenous individuals who are motivated to quit. Evidence is more limited, however, regarding strategies that are likely to be effective in overcoming major social and cultural barriers to Indigenous smoking cessation, such as the high level of acceptance and ‘normalisation’ of smoking within Indigenous communities. The continued high rate of smoking among Indigenous Australians suggests that interventions that have led to a significant reduction in smoking among the general population – including tobacco taxation, restricting tobacco sales, smoke-free legislation, mass media education campaigns and so forth – may not have not been as effective for the Indigenous population. There is a need for investment in well-constructed, large-scale research to build the body of evidence on strategies that are likely to increase motivation to seek quit support among Indigenous communities and challenge social factors that continue to support smoking. This may include research in the following areas:

- the extent that smoking is ‘normalised’ behaviour within Indigenous communities (both rural and metropolitan) and factors which maintain a ‘smoking culture’;
- the extent that anti-tobacco legislation has, or has not, been implemented in rural and remote communities and the relationship between this and high smoking rates;
- the extent that mainstream population-wide interventions have potential to be effective for Indigenous communities (including tobacco taxation, restricting tobacco sales, smoke-free legislation, mass media education campaigns);
- whether promoting the use of bupropion would be an effective smoking cessation strategy within Indigenous communities; and
- the capacity of Aboriginal Health Workers to incorporate smoking cessation into their position given existing demands on their time and their role within the community as a whole.
Table 4: Synthesis of evidence regarding effective smoking cessation interventions for Indigenous Australians.

<table>
<thead>
<tr>
<th>Intervention type</th>
<th>Quality of evidence for general population</th>
<th>Quality of evidence specifically for Indigenous peoples</th>
<th>Comment on whether evidence is likely to be applicable to Indigenous Australians</th>
<th>Rating for applicability to Indigenous Australians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief interventions</td>
<td>I</td>
<td>One Australian study – IV</td>
<td>It is important that Aboriginal health and community workers conduct the brief interventions rather than non-Indigenous health workers.</td>
<td>A</td>
</tr>
<tr>
<td>Training health workers in brief intervention</td>
<td>I</td>
<td>One Australian study – IV</td>
<td>The high prevalence of smoking among Aboriginal Health Workers points to this as an important strategy for increasing quit rates.</td>
<td>B</td>
</tr>
<tr>
<td>NRT</td>
<td>I</td>
<td>Two Australian studies – IV</td>
<td>Cost of NRT may be a barrier for some Indigenous Australians, free access to NRT may be an incentive to make a quit attempt. Barriers faced by Indigenous Australians in accessing mainstream health services may also be a barrier to using NRT.</td>
<td>A</td>
</tr>
<tr>
<td>Bupropion</td>
<td>I</td>
<td></td>
<td>Likely to be just as effective as for non-Indigenous people, but anecdotal evidence indicates Aboriginal people may be reluctant to use it due to side effects or lack of understanding about how it works, despite the cost benefit of it being available on the PBS. There may also possibly be a low level of awareness about Bupropion.</td>
<td>B</td>
</tr>
<tr>
<td>Counselling (individual, face-to-face)</td>
<td>I</td>
<td></td>
<td>Likely to be most effective when combined with NRT. Culturally appropriate counselling is important.</td>
<td>B</td>
</tr>
<tr>
<td>Group-based interventions</td>
<td>I</td>
<td>One Australian study – IV</td>
<td>Therapeutic style groups may not be effective for all Aboriginal people as the issues discussed are often seen as personal and private.</td>
<td>C</td>
</tr>
<tr>
<td>Quit programs for health workers</td>
<td></td>
<td>One Australian study – not conclusive</td>
<td>Health workers who are able to quit may be in a strong position to be a role model for others. This also applies to community and youth workers and others in higher profile positions within communities.</td>
<td>D</td>
</tr>
<tr>
<td>Workplace programs</td>
<td>I</td>
<td></td>
<td>There is no evidence to suggest workplace interventions will be less effective with Aboriginal individuals. However, this strategy is not recommended for Aboriginal populations except in cases where Aboriginal people are congregated at one workplace, such as Aboriginal Health Services. There is also a high level of unemployment among Aboriginal Australians and Torres Strait Islanders.</td>
<td>C</td>
</tr>
<tr>
<td>Advice to pregnant women</td>
<td>I</td>
<td>Expert opinion</td>
<td>The high prevalence of smoking among Indigenous women and evidence of efficacy of this intervention with non-Indigenous women supports the need for interventions in this area. Aboriginal women may be less likely to attend antenatal care.</td>
<td>B</td>
</tr>
<tr>
<td>Advice to hospital inpatients</td>
<td>I</td>
<td>Expert opinion</td>
<td>Culturally appropriate resources and quit advice should be available in hospitals for Aboriginal inpatients.</td>
<td>B</td>
</tr>
<tr>
<td>Community interventions</td>
<td>No conclusive</td>
<td>One Australian study – III-2</td>
<td>Intervention may be more effective if it combines health promotion with supports such as counselling for people trying to quit. A focus on families may be effective. May be more likely to be effective if coordinated with mass media campaigns that include Indigenous perspectives.</td>
<td>D</td>
</tr>
<tr>
<td>Mass media campaigns</td>
<td>III-3 – IV</td>
<td>Evidence from mainstream evaluation of Australian campaign – IV One Australian B study – IV</td>
<td>Evidence shows general mass media campaigns are just as effective for Indigenous people as non-Indigenous. Indigenous specific media campaigns may have more impact.</td>
<td></td>
</tr>
<tr>
<td>School-based education</td>
<td>I</td>
<td>One Australian study – inconclusive</td>
<td>No reason why this will be less effective with Indigenous students. High rates of smoking among Indigenous young people warrants a focus on young people.</td>
<td>B</td>
</tr>
<tr>
<td>Quitlines</td>
<td>I</td>
<td>Expert opinion</td>
<td>Inaccessibility of telephones may be a barrier for Indigenous people in remote areas. An Indigenous specific Quitline or targeted promotion to Indigenous communities, combined with cultural awareness training for counsellors, may be effective but there is no Australian evidence for this.</td>
<td>B</td>
</tr>
<tr>
<td>Educational interventions on exposure to smoke in homes</td>
<td>I</td>
<td>Expert opinion</td>
<td>Anecdotal evidence suggests Aboriginal people are concerned about children’s exposure to tobacco smoke in homes and cars.</td>
<td>B</td>
</tr>
<tr>
<td>Self-help materials</td>
<td>I</td>
<td>Expert opinion</td>
<td>Would need to be culturally appropriate and used to support other interventions rather than working stand alone.</td>
<td>B</td>
</tr>
</tbody>
</table>

Note: Refer to Table 1 and 2 for legend.
Table 4: Synthesis of evidence regarding effective smoking cessation interventions for Indigenous Australians. Continued.

<table>
<thead>
<tr>
<th>Intervention Type</th>
<th>Quality of evidence for general population</th>
<th>Quality of evidence specifically for Indigenous peoples</th>
<th>Comment on whether evidence is likely to be applicable to Indigenous Australians</th>
<th>Rating for applicability to Indigenous Australians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsorship of cultural, sporting and community events</td>
<td>IV</td>
<td>One Australian study – III-2</td>
<td>May be effective as part of a range of interventions.</td>
<td>D</td>
</tr>
<tr>
<td>Designated smoke free areas and restricting smoking in public places</td>
<td>I</td>
<td>One Australian study – III-2</td>
<td>Reducingvisibility of smoking highly recommended as a way of assisting people to quit and discouraging uptake is highly recommended.</td>
<td>B</td>
</tr>
<tr>
<td>Reading material, posters, DVDs</td>
<td>Inconclusive but may be effective as part of broader media campaign</td>
<td>Resources developed specifically by and for Aboriginal communities are highly recommended if resources are to be part of a broader community strategy.</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Cigarette package warnings</td>
<td>III-3</td>
<td>These are likely to be just as effective with Indigenous people as they have been with non-Indigenous people.</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Restricting cigarette sales to minors</td>
<td>One Australian study – IV</td>
<td>May be more effective when combined with ‘quit’ training for community store owners.</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Banning or restricting cigarette sales through vending machines</td>
<td>One Australian study – IV</td>
<td>Likely to be similarly effective for Indigenous people as non-Indigenous.</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Tobacco taxation</td>
<td>III-3</td>
<td>Tobacco taxation may adversely impact upon Indigenous smokers with low incomes who do not reduce tobacco consumption.</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Text message support</td>
<td>III-3</td>
<td>This may be an effective strategy in communities where a large number of young people have mobile phones.</td>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

Note: Refer to Table 1 and 2 for legend.

Acknowledgements

This research was funded by the South Australian Department of Health and conducted by Urbis Pty Ltd. Heather Petty, from the Strategic Planning, Policy and Research Branch, Policy and Intergovernment Relations Division, of the South Australian Department of Health provided strategic direction and oversight of the study. The project was guided by a reference group including Alvin Chong from the Aboriginal Health Council of South Australia, Della Rowley from the Tobacco Control Unit, Drug and Alcohol Services, South Australian Department of Health, Karen Glover, Wendy Lawrie, Selena Batterby and David Van der Hoek from the South Australian Department of Health and representatives of the Ministerial Reference Group on Tobacco (MROGOT). Thank you to Rowena Ivers who provided advice and references at the beginning of the project.

References


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