

Indigenous Australians and Tobacco: a literature review

Dr Rowena Ivers

October 2001

Menzies School of Health Research
and the
Cooperative Research Centre
for
Aboriginal and Tropical Health

© Copyright Menzies School of Health Research, Cooperative Research Centre for Aboriginal and Tropical Health This work is copyright. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced without prior written permission of the author.

Ivers R, Indigenous Australians and Tobacco – a literature review, Cooperative Research Centre for Aboriginal and Tropical Health, Darwin, 2001

ISBN 1 876831 60 X

Artwork and design by Sarah Walton, CRCATH
Edited by She'll Be Write

Contents

LIST OF TABLES	vi
ACKNOWLEDGEMENTS	vii
GLOSSARY AND DEFINITIONS	viii
SUMMARY	ix
1. INTRODUCTION	1
1.1 Aims.....	1
1.2 Structure.....	1
1.3 Rationale and methodology.....	2
1.4 The problem.....	5
PART ONE INDIGENOUS AUSTRALIANS AND TOBACCO: DIMENSIONS OF THE PROBLEM	
2. PREVALENCE AND PATTERNS OF TOBACCO USE	9
2.1 Early history.....	9
2.2 Contemporary prevalence and patterns	11
2.3 Summary	20
3. WHY DO INDIGENOUS PEOPLE USE TOBACCO?	21
3.1 Colonisation and dispossession.....	21
3.2 Socioeconomic inequity.....	21
3.3 Knowledge of harmful effects	22
3.4 Social and cultural factors.....	23
3.5 Summary.....	28
4. THE HEALTH EFFECTS OF TOBACCO USE BY INDIGENOUS PEOPLE ..	31
4.1 The Australian Indigenous population	31
4.2 Tobacco use, life expectancy and mortality	31
4.3 Morbidity and smoking	32
4.4 Smoking and specific medical conditions	32
4.5 Summary	39

PART TWO QUITTING: ATTITUDES AND APPROACHES

5. ATTITUDES TO QUITTING	43
5.1 How do smokers quit?.....	43
5.2 Why do smokers quit?.....	43
5.3 Readiness to quit.....	45
5.4 Quit attempts	45
5.5 Addiction and difficulties facing quitters.....	46
5.6 Expectations and predictors of successful quitting	46
5.7 Summary	47
6. TOBACCO PROGRAMS FOR INDIGENOUS PEOPLE	49
6.1 Defining health promotion.....	49
6.2 Promoting the health of Indigenous Australians	49
6.3 Types of tobacco programs.....	50
6.4 Lessons from other indigenous tobacco programs	50
6.5 Stating the needs.....	50
6.6 National programs in Australia	51
6.7 State and territory programs	51
6.8 Local government programs.....	52
6.9 Indigenous community-controlled programs	52
6.10 Non-government organisations	53
6.11 Coordination of programs	53
6.12 Summary	53
7. INTERVENTIONS IN PRIMARY CARE	55
7.1 Rating the evidence for interventions.....	55
7.2 Use of primary care services in Australia.....	55
7.3 Existing guidelines for tobacco interventions.....	55
7.4 Raising the issue of tobacco in health consultations.....	56
7.5 Advising smokers to quit.....	57
7.6 Motivational interviewing	58
7.7 Harm minimisation.....	59
7.8 Nicotine replacement therapy.....	59
7.9 Bupropion	60
7.10 Other methods used for smoking cessation	61
7.11 Training health professionals in smoking cessation techniques	61
7.12 Health professionals who use tobacco.....	62
7.13 Tobacco interventions for pregnant women	63

7.14 Hospital based smoking cessation interventions	64
7.15 Summary.....	65
8. COMMUNITY INTERVENTIONS	67
8.1 Generalised community interventions	67
8.2 Interventions to improve socioeconomic status	68
8.3 Mass media campaigns.....	69
8.4 Interventions for young people.....	70
8.5 Workplace interventions.....	72
8.6 Quit courses and support groups	72
8.7 Quitlines.....	73
8.8 Interventions aimed at passive smoking in the home	74
8.9 Sponsorship of cultural, sporting and community events	74
8.10 The effect of health promotion materials	75
8.11 Health promotion and Indigenous Australians: some general issues.....	75
8.12 Specific health promotion media.....	77
8.13 Tobacco education in general health promotion programs	79
8.14 Summary.....	80
9. LEGISLATIVE INTERVENTIONS	81
9.1 Control of tobacco advertising and promotion.....	81
9.2 Control of tobacco packaging.....	81
9.3 Tobacco pricing.....	83
9.4 Smoke-free public places	84
9.5 Sales to minors.....	85
9.6 Restricting the availability of tobacco	85
9.7 Summary	86
10. CONCLUSIONS	87
10.1 Future options for program delivery	87
10.2 Recommendations for future research.....	90
10.3 Conclusion	91
11. BIBLIOGRAPHY	93
APPENDIX 1 – Mortality and morbidity for specific conditions – Indigenous Australians ..	109
APPENDIX 2 – Policies, plans and strategies for tobacco programs for Indigenous people...	112
APPENDIX 3 – Health promotion materials about tobacco for Indigenous people	113
APPENDIX 4 – Major tobacco programs for indigenous people	121

Tables

	<i>Page</i>
Table 1	Evidence ratings for interventions..... 2
Table 2	Smoking prevalence - Indigenous people 13
Table 3	Smoking status - Indigenous people 14
Table 4	Smoking prevalence by age – Australia..... 15
Table 5	Smoking prevalence by age – Indigenous people 15
Table 6	Smoking prevalence by occupational group - Australia..... 16
Table 7	Smoking prevalence by educational level 17
Table 8	Self-reports of the number of cigarettes smoked per day 17
Table 9	Prevalence of tobacco use by type – Indigenous people..... 18
Table 10	Source of health promotion materials about tobacco 28
Table 11	Stages of self-change 45
Table 12	Tobacco behaviour modification in the past 12 months..... 46
Table 13	Quality of evidence for quitting advice from health staff 58
Table 14	Quality of evidence for interventions involving NRT 60
Table 15	Quality of evidence for interventions involving bupropion..... 61
Table 16	Quality of evidence for training health professionals in smoking cessation techniques 62
Table 17	Quality of evidence for advice from health professionals who are smokers 63
Table 18	Quality of evidence for advice to pregnant women..... 64
Table 19	Quality of evidence for advice to hospital inpatients 64
Table 20	Quality of evidence for generalised community interventions 68
Table 21	Quality of evidence for media campaigns..... 70
Table 22	Quality of evidence for school-based and community interventions with young people 72
Table 23	Quality of evidence for workplace interventions..... 72
Table 24	Quality of evidence for quit courses and support groups 73
Table 25	Quality of evidence for quitlines..... 74
Table 26	Quality of evidence for educational interventions about passive smoking..... 74
Table 27	Quality of evidence for sponsorship promoting smoke-free venues..... 75
Table 28	Quality of evidence for specific health promotion media..... 79
Table 29	Quality of evidence for controls on tobacco advertising and promotion 81
Table 30	Quality of evidence for controls on tobacco packaging and vending machine sales 82
Table 31	Quality of evidence for tobacco pricing controls..... 84
Table 32	Quality of evidence for smoke free public places 85
Table 33	Quality of evidence for restricting tobacco sales to minors..... 85
Table 34	Quality of evidence for community-wide smoking bans 86
Table 35	Applicability of tobacco interventions for Indigenous Australians..... 87
Table 36	Tobacco interventions for Indigenous people in Australia 88

Acknowledgments

This literature review was made possible through a Menzies School of Health Research scholarship for postgraduate study, and a National Health and Medical Research Council (NHMRC) Training Scholarship for Aboriginal Health Research. The editing, revision and publication of the review has been managed and funded by the Cooperative Research Centre for Aboriginal and Tropical Health. The Commonwealth Department of Health and Aged Care, the National Heart Foundation (NHF) (NT Division) and the Cooperative Research Centre for Aboriginal and Tropical Health funded the printing of the document.

Thank you to Dr Ross Bailie, Dr Peter D'Abbs and Associate Professor Robyn Richmond, and to all those who have commented on drafts of the review.

Principal author

Dr Rowena Ivers
Postgraduate student
Menzies School of Health Research and the
Cooperative Research Centre for Aboriginal and Tropical Health
PO Box 41096
Casuarina NT 0811
Ph: 08 8922 8196
Fax: 08 8927 5187

Organisations that contributed to this literature review:

National Heart Foundation (NHF), NT Division
PO Box 4363
Darwin NT 0801

Commonwealth Department of Health and Aged Care
Tobacco and Alcohol Strategies Section
MDP103 GPO Box 9848
Canberra ACT 2601

Other contributors and reviewers:

Viki Briggs, Cancer Council of Victoria
Chris Burns, NHF
Anthony Castro, Territory Health Services
Echo Cole, Derbarl Yerrigan Health Centre, Perth
Helen Kehoe, National Aboriginal Community Controlled Health Organisations (NACCHO)
Kylie Lindorff, NHF/NACCHO
Sally Matthews, Cooperative Research Centre for Aboriginal and Tropical Health
Sarah Muller, Health Information Centre, Queensland Health
Lyn Roberts, NHF
Meriel Schultz, Commonwealth Department of Health and Aged Care
Denise Sullivan, (previously) Health Department of Western Australia
Leanne Wells, Commonwealth Department of Health and Aged Care

Glossary and Definitions

Glossary

ABS	Australian Bureau of Statistics
AHW	Aboriginal Health Worker
AMA	Australian Medical Association
AMS	Aboriginal Medical Service
CDHAC	Commonwealth Department of Health and Aged Care
CDHSH	Commonwealth Department of Human Services and Health
COAD disease)	Chronic obstructive airways disease (also including chronic obstructive pulmonary disease)
CI	Confidence interval
GP	General practitioner
NATSIS	National Aboriginal and Torres Strait Islander Survey
NDS	National Drug Strategy
NHF	National Heart Foundation
NHMRC	National Health and Medical Research Council
NRT	Nicotine replacement therapy
NTC	National Tobacco Campaign
OATSIH	Office of Aboriginal and Torres Strait Islander Health
PBS	Pharmaceutical Benefits Scheme
RCT	Randomised controlled trial
TAP	Tobacco Action Project
TSI	Torres Strait Islander
WHO	World Health Organisation

Definitions

Aetiological fraction

Estimates, specific for age and sex, of the proportion of occurrences of a particular condition attributable to the use of a particular drug.

Age standardisation

The process of calculating the rates of mortality or morbidity which each population would have experienced if it had the same age distribution as the World Standard Population.

Indigenous person

An Indigenous person is defined as a person of Aboriginal or Torres Strait Islander descent who identifies himself or herself as Aboriginal or Torres Strait Islander and is accepted as such by the community in which he or she lives.

Rate ratio

For the purposes of this document, this is taken to be the mortality or morbidity rate of Indigenous people divided by that of non-Indigenous people.

Summary

The use of tobacco is a major cause of premature mortality and morbidity among Indigenous people in Australia. The life expectancy of Indigenous Australians in 1992–1994 was 15–20 years less than that of the general population. Much of this difference was due to high rates of cardiovascular disease, respiratory disease and other diseases related to tobacco. Few health programs have addressed tobacco use among Indigenous people. There has been little or no evaluation of such programs and little formal research about Indigenous people and their use of tobacco.

History of tobacco use

Indigenous people traditionally used *pituri* and native tobaccos, especially in south-western Queensland and Central Australia. They came into contact with tobacco hundreds of years ago through trade with Macassans, and then through contact with Europeans, where tobacco sometimes was used as an instrument for social control. Indigenous people were paid with tobacco rations until the 1960s. It is possible that Indigenous people's history of colonisation and dispossession may affect the implementation of tobacco programs.

Prevalence of tobacco use by Indigenous Australians

The prevalence of tobacco use among Indigenous Australians is much higher than among other Australians. Nationally approximately 54% of Indigenous Australians smoke, compared to 22% of all Australians. In some regions, up to 83% of Indigenous men and up to 73% of Indigenous women use tobacco. The prevalence of tobacco use by Indigenous people is also higher than for other ethnic groups within Australia, as well as being higher than for other indigenous people.

Indigenous smokers use about the same amount of tobacco as smokers in the general population. Some Indigenous people chew tobacco.

As with the general population, Indigenous people are more likely to smoke if they have *a low level of education or are unemployed*. Indigenous people are also more likely to take up smoking at a younger age. Many Indigenous people are exposed to *environmental smoke (passive smoke)*.

Tobacco consumption among Indigenous people is probably best measured by self-report, but the use of visual aids such as showcards may be useful in assisting people to quantify the amount smoked. Tobacco consumption in remote communities may also be measured by assessing tobacco turnover in community stores, but store turnover is unlikely to be a useful measure for urban Indigenous people.

The high prevalence of tobacco use among Indigenous people indicates that there is a need for interventions to reduce the prevalence of tobacco use in this population and to reduce exposure to environmental tobacco smoke.

Why Indigenous people smoke

There are a number of similarities between Indigenous and other Australians' reasons for using tobacco. However there are also some important differences which can be explained by historical, social, cultural and economic factors which have resulted in different Indigenous lifestyles, needs, vulnerabilities and priorities.

These include:

- Colonisation and dispossession. The colonisation of Australia led to disruption of culture and the creation of unhealthy living and social conditions. Dispossession and institutionalisation, and the resultant separation and loss have led to a higher level of risk-taking behaviour among Indigenous people, including tobacco use.
- Socioeconomic inequity. Low rates of education, high rates of unemployment and poor housing are linked with higher rates of tobacco use.
- Lack of knowledge about harmful effects. Some (but not all) Indigenous people know less about the harmful effects of tobacco than others. Some studies of Indigenous people have shown very low levels of awareness of the medical problems caused by smoking. Similarly smoking is not widely perceived to be a cause of most drug-related deaths.
- Cultural beliefs. Among some Indigenous people, tobacco may have been, and continues to be, linked with traditional cultural practices and beliefs.
- Social contexts and pressures. Sharing tobacco plays a large part in the social life of many Indigenous people, and using tobacco reinforces family relationships and friendships. People who don't use tobacco may end up feeling isolated and alienated from the community.
- Early uptake of smoking. Indigenous children and adolescents take up smoking earlier than non-Indigenous young people. Addiction to nicotine is therefore more likely to be established by adolescence.
- Health priorities. Indigenous people have often prioritised other health issues above tobacco use – for example, alcohol use (which, unlike tobacco, has acute disruptive effects), housing and infrastructure improvements, dog programs and nutrition programs.
- Targeted Advertising. There is evidence that some tobacco advertising campaigns have been targeted at Indigenous people.
- Less access to medical services and resources. Indigenous people may have poorer access to health services than other Australians. Even where health services are available, there may be barriers to access, including language barriers, racism and lack of Indigenous involvement in the delivery of health services. Few health promotion resources about tobacco are targeted at Indigenous people.

However there are also some factors which influence smoking behaviour, such as enjoyment, which are similar across the whole Australian population. As with other smokers, some Indigenous people are aware that they are addicted to tobacco. The cost of smoking does not appear to influence their decision to continue smoking.

Nonetheless, the context for delivery of tobacco programs differs significantly from that in the general population because of differences in the history, socioeconomic status and culture of Indigenous people. Many of these factors may make it more difficult for Indigenous people to quit and may require specific targeted strategies which take on board specific histories, needs and socio-cultural contexts.

The health effects of tobacco use for Indigenous people

The high prevalence of tobacco use among Indigenous people is likely to contribute to *reduced life expectancy*. Indigenous people experience 2–8 times the death rate of non-Indigenous people across all age groups, but tobacco smoking is likely to contribute to a similar proportion of deaths among Indigenous people as that in the general population (about 15%).

Indigenous people die younger from tobacco-related illness than do non-Indigenous people. Forty-nine per cent of Indigenous males and 48% of Indigenous females whose deaths were related to using tobacco were aged 55 years or under, compared to 11% of non-Indigenous males and 10% of non-Indigenous females.

Indigenous people are hospitalised at 2–3 times the rate of people in the general Australian population, with many people being hospitalised for respiratory disease. Indigenous people are more likely to be hospitalised for conditions attributed to tobacco use than other Australians.

Indigenous people suffer from a higher prevalence of many medical disorders compared to non-Indigenous people, much of which is likely to be related to tobacco use. Specifically:

- Indigenous women are up to 3.1 times and Indigenous men up to 2.2 times more likely to die of *lung cancer*.
- Indigenous women are up to 6.8 times and Indigenous men up to 3.2 times more likely to die from *ischaemic heart disease*.
- Indigenous women are up to 19.2 times and Indigenous men up to 15.1 times more likely to die from *pneumonia*.
- Indigenous women are 2.8 times more likely to deliver an infant with a *low birthweight*, and the *perinatal mortality rate* is 2–3 times higher for Indigenous infants. Indigenous infants are 3.9 times more likely to die from *Sudden Infant Death Syndrome (SIDS)*.
- Indigenous people are more likely to suffer from blindness, cataracts and deafness.
- Indigenous people are more likely to be exposed to environmental (passive) smoke. Indigenous children are more likely to suffer from *ear infections*, and are more than 10 times as likely to be hospitalised for respiratory infections.

However, while there is an abundance of data on the prevalence of a range of tobacco-related conditions among Indigenous people, only a few studies have reported on tobacco use among those suffering from the health problem.

The *high rate of mortality and morbidity* attributable to tobacco use among Indigenous people indicates a definite need for interventions to reduce the prevalence of tobacco use and to reduce exposure to environmental tobacco smoke in this population.

Attitudes to quitting

Few studies have assessed how or why Indigenous ex-smokers quit. Some Indigenous smokers may have quit due to health reasons or pregnancy, through gaining the support of their family or the support of health professionals, or because of smoking bans in the workplace or public places.

Most Indigenous people support policies which are aimed at preventing children and adolescents smoking. Over 70% of Indigenous people support bans on smoking in the workplace and shopping centres.

From the available evidence, *most Indigenous ex-smokers, like other ex-smokers, quit by themselves, without help, for health reasons*. Like other smokers, Indigenous smokers believe that they would quit if given external support, through provision of NRT, or through legislative or other restrictions on tobacco use.

A smaller proportion of Indigenous smokers are ready to quit than smokers in the general population, and fewer Indigenous people intend to quit in the future. There is conflicting evidence about the proportion of Indigenous smokers who attempt to quit compared to the general population. The numbers may well be quite similar.

There are indications that many Indigenous people make a number of unsuccessful quit attempts and that, like other smokers, they face problems with addiction and social contexts conducive to smoking.

Tobacco programs for Indigenous people

Tobacco programs may include *interventions in primary care* (such as brief interventions given to smokers by health staff and aids to cessation including NRT), *interventions in the community* (such as general community interventions, media campaigns and school education about tobacco) and *legislative interventions* (such as encouraging smoke-free areas). *A mixture of approaches is likely to be appropriate*. Programs in Indigenous settings have incorporated initiatives at all of these levels, adapting them for the specific needs of their communities.

A number of major Strategies, Conferences and Professional Associations have made statements identifying the need for tobacco control programs for Indigenous Australians. *A community development approach has been recommended to ensure sustainability and cultural appropriateness*.

Tobacco programs for Australian Indigenous people are currently being run by a range of organisations, including the Federal Government, state and territory governments, local government, Indigenous community-controlled health organisations and non-government organisations. At present, there is an unmet need for greater coordination of Indigenous tobacco programs.

Primary Interventions

- There is good evidence from other populations that brief *advice from health professionals* (doctors, nurse and others) can help about 6% additional smokers quit. While there is little evidence about the effect of tobacco advice given by Indigenous health workers, it is likely to be effective. Guidelines produced by Indigenous organisations recommend advising smokers to quit.
- *Culturally appropriate, non-coercive methods of counselling* may be most appropriate in an Indigenous setting. While not ideal, *harm minimisation* approaches may also be a pragmatic alternative to a focus on abstinence.
- There is good evidence that *Nicotine Replacement Therapy* increases the quit rate in other populations and limited evidence that it may be similarly effective with Indigenous people. Many Indigenous smokers certainly believe that they would benefit from NRT. However NRT may be inaccessible to Indigenous people because of its cost.
- There is good evidence in other populations that the antidepressant *bupropion* may assist smokers to quit, especially when used in conjunction with nicotine patches. While it has not been evaluated in an Indigenous setting, it is likely to have a similar effect as in other populations.
- *Training health professionals about advising smokers* has a small but significant effect in reducing the number of smokers in other populations. Appropriate training for AHWs, nurses and doctors who work with Indigenous people is likely to have a similar effect. There are several training modules that have been developed for Indigenous people, and training in giving advice on tobacco may also be included in undergraduate health training.
- *Health professionals who smoke*. Many Indigenous health workers and community workers are smokers and may therefore be less likely to give advice about quitting. There are also a number of other barriers to health professionals giving tobacco advice to Indigenous smokers. The effect of encouraging health staff who smoke to quit has not been evaluated, but it is likely that tobacco programs aimed at such staff will strengthen cessation messages given.
- *Interventions to assist pregnant women* to quit are successful in decreasing tobacco use and increasing birthweight in other populations. Up to 72% of pregnant Indigenous women smoke and Indigenous infants are more likely than others to be low birthweight, with smoking thought to be a contributing factor. Health promotion resources specifically to address the effect of smoking on pregnant Indigenous women have been developed. One intervention incorporating advice about nutrition and tobacco, delivered by community-based Indigenous workers, resulted in weight gains for Indigenous infants; however the data on tobacco use was poorly recorded.
- *Hospital based interventions*. There is evidence in other populations that high intensity interventions with hospital inpatients result in higher quit rates. However, there have been no trials of hospital based quit advice for Indigenous smokers

Community Interventions

- It is unclear whether *generalised community campaigns* about tobacco (including media campaigns, smoking bans, education of health professionals) decrease the prevalence of tobacco use, although there is some evidence that they are effective in reducing uptake of tobacco use in young people. General community interventions have not been evaluated in Indigenous communities.
- *Media campaigns* could result in a small reduction in the prevalence of smoking and may be effective in preventing uptake among young people. In one significant campaign evaluation there were no differences between the findings for Indigenous people and the general population, in terms of either awareness or recall of messages from anti-smoking advertisements. Some Indigenous people have said that they would prefer a campaign designed specifically for Indigenous people. They also believe that Indigenous tobacco programs need to be locally based and include local content, that they should involve elders and significant community members in their design and delivery, and that they must have a broad community focus.
- School education programs and mass media campaigns can reduce uptake of tobacco use among *young people*. There are several school education programs that have been developed for Indigenous children and adolescents, but none have been adequately evaluated.
- There is evidence from other populations that *workplace interventions* can reduce exposure to environmental tobacco smoke and may reduce the prevalence of tobacco use. While no workplace tobacco interventions have been evaluated in Indigenous communities, it is likely that they would be similarly effective for Indigenous working people.
- *Quit courses or support groups* are better than self-help and other less intensive interventions, but mainstream quit courses may be relatively inaccessible for Indigenous people. A quit group specifically for Indigenous people may be more likely to help them quit, but there have been no evaluations of such quit courses or support groups.
- *Quitlines* can improve quit rates, when used as part of an anti-smoking campaign. Indigenous people may find mainstream quitlines to be relatively inaccessible, and there are no quitlines established specifically for Indigenous people. Indigenous people's use of quitlines has not been evaluated.
- *Passive smoking*. Interventions aimed at reducing exposure to environmental smoke in the home may be effective in protecting the health of children. There are only a few such programs aimed at Indigenous people, and none of these have been evaluated. However they are likely to be an important intervention due to Indigenous people's greater exposure to environmental tobacco smoke.
- *Sponsorship of cultural, sporting and community events*. Events that are smoke-free are effective in reducing exposure to environmental tobacco smoke and may promote a quit message. Such promotional activities have been used in Indigenous tobacco programs, but there is little clear evidence of their effect.
- There is evidence from other populations that the use of *health promotion materials*, including self-help materials, can help smokers to quit. There is little evidence about the efficacy of specific health promotion media with Indigenous people, although posters, pamphlets and flip charts are commonly used. Indigenous people are likely to prefer materials that are targeted at an Indigenous audience, that use visual media or are easy to read and colourful, and include pictures of local or well-known Indigenous people. Indigenous tobacco programs have used a variety of materials including posters, videos, pamphlets, flip charts, feltboards, CD-ROM, stickers and T-shirts.
- *Traditional art, song, dance and storytelling* have also been used to convey messages about tobacco use. However only one brief intervention has been evaluated.

Legislative Interventions

- *Control of advertising and promotion* of tobacco products reduces consumption. The effect of tobacco advertising restrictions has not been evaluated for Indigenous people; however it is likely to reduce consumption. Some communities may be able to limit advertising and promotion locally.
- *Control of tobacco packaging.* Health warnings may be effective in reducing tobacco use, but their effect has not been evaluated for Indigenous people; written warnings may be less useful for Indigenous people with low literacy skills. Restricting sales of cigarettes to larger packs and banning sales through vending machines may reduce access to tobacco, especially by minors, but have not been evaluated in Indigenous settings. Some Indigenous communities could potentially choose to restrict sales to larger packs and to ban the use of vending machines.
- *Increases in price of tobacco products* reduce consumption in other populations. While the effect of taxation and pricing changes has not been evaluated for Indigenous people, there is a similar potential for a decrease in consumption. Increases in price of tobacco products may, however, result in hardship for smokers who do not reduce their consumption of tobacco, but may, for example, reduce expenditure on food.
- Interventions aimed at producing *smoke-free public places* are effective in reducing exposure to environmental tobacco smoke. The effect of smoke-free areas legislation for Indigenous people is not known, however. Policies on banning smoking in mainstream organisations may have had some effect on reducing tobacco use by some Indigenous people or in encouraging them to quit.
- *Restricting sales to minors* may reduce access to tobacco, but does not necessarily prevent uptake of tobacco use. There are no published accounts of the effect of enforcing restrictions on sales to Indigenous minors; however such programs are likely to have a similar effect to that in other populations.
- *Restricting the availability of tobacco* through local by-laws has been tried successfully in an indigenous community overseas. By-laws relating to tobacco have not as yet been tried in Australian Indigenous communities, although comparable controls have been adopted by some communities for alcohol.

Conclusion

There is compelling data on the *prevalence of tobacco use* among Indigenous people, and on the *prevalence of health conditions that are potentially related to tobacco*. There is less clear data specifically on the link between tobacco use and these health conditions among Indigenous people.

There is an abundance of literature on the *effectiveness of a range of tobacco interventions in other populations*, including evidence on interventions in primary care, community and legislative interventions. Much of the evidence for tobacco interventions in primary care and in the community is of high quality according to the NHMRC rating system for evidence. Other public health-oriented tobacco interventions, such as legislative interventions and media campaigns, have also been recommended by systematic reviews of the evidence.

However, only three tobacco interventions have been formally evaluated in Indigenous communities, with only one being able to conclusively show a positive effect.

This audit of tobacco programs for Indigenous people reveals that *numerous small programs have been conducted*, especially in the area of health promotion (in particular, development of health promotion materials). Many of these programs appear to have been innovative, but few have been evaluated.

An emphatic conclusion is that *there is a major lack of research and evaluation of tobacco interventions in Indigenous Australian contexts*. Nonetheless, it is possible to extrapolate from interventions that have been effective for other populations. However, more research or evaluation is required to ensure that such interventions are effective for Indigenous people.

Despite this lack of conclusive data about effective interventions, *there is no doubt that the prevalence of tobacco use and the high rate of mortality and morbidity attributable to tobacco among Indigenous Australians, constitute a serious health problem.* The evidence indicates a definite need for effective interventions to reduce the prevalence of tobacco use and to reduce exposure to environmental smoke in this population.

The challenge for health professionals will be to work with Indigenous communities to devise *ethical, culturally appropriate and effective interventions.* In the words of Ian Anderson (quoted more fully in Chapter 7) it is important that:

...programmes are structured in such a way as to allow Indigenous people to engage with the possibilities, have the necessary resources to make changes, and to be convinced that the changes will enhance their lives (1994).



1. Introduction

1.1 Aims

There are three specific aims of this study:

- to review the literature on tobacco use among Indigenous people
- to provide an audit of tobacco interventions and programs for Indigenous people in Australia, and
- to assess the evidence for the effectiveness of various tobacco interventions which have been used with Indigenous people in Australia.

It is hoped that this review will be used to plan future program delivery, research and evaluation in the area of tobacco control for Indigenous people.

The audit of existing program delivery in the area of tobacco control for Indigenous people fulfils a stated Key Strategy Area of the National Tobacco Strategy 1999 to 2002–3, that is: *Conduct a national audit of smoking initiatives for Aboriginal and Torres Strait Islander people.*

This literature review was developed in 1998 as part of a PhD by the principal author. It is designed to inform the analysis of existing literature on tobacco use by Indigenous Australians and the evaluation of programs aimed at reducing the harm resulting from tobacco use in this population. Where useful, comparisons with other Indigenous populations and the non-Indigenous Australian population are made.

The report is aimed primarily at tobacco policy officers and health professionals working in primary care. The goal is to make information available in an area that has been characterised by limited program delivery and minimal formal research or evaluation.

Note: The term 'Indigenous' is used throughout the text for all Aboriginal or Torres Strait Islander (TSI) Australians, unless specified.

1.2 Structure

The literature review is divided into two parts.

Part One examines dimensions of smoking as a problem among Indigenous Australians. It includes chapters on the patterns and prevalence of tobacco use; historical, social and cultural causes of smoking; and the health effects of tobacco use, including a summary of specific tobacco-related diseases and medical problems.

Part Two examines dimensions of quitting smoking, including tobacco programs; primary health care and community intervention strategies; and a discussion of legislative and policy issues including advertising, pricing, sales restrictions and smoke-free public zones.

There are four Appendices:

Appendix 1 is a series of tables documenting the morbidity and mortality of potentially tobacco-related health problems among Indigenous people.

Appendix 2 comprises policies and strategies in the area of tobacco control for Indigenous people

Appendix 3 lists health promotion resources in the area of smoking cessation programs for Indigenous people

Appendix 4 shows major tobacco programs for Indigenous people.

1.3 Rationale and methodology

1.3.1 Evidence based health care

This study is premised on an evidence based health care model.

Evidence based medicine is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research (Sackett, Rosenberg, Muir Gray, Haynes, & Richardson, 1996).

Reviews of evidence for health interventions aim to answer questions that arise in health service delivery, to ensure that interventions do more good than harm. An evidence based approach has been used predominantly in the area of clinical care, but has also been used to decide which public health interventions to deliver, including in the area of tobacco control.

Systematic reviews of medical literature are a feature of an evidence based approach to health care. They are useful because they:

- assist in building up a body of knowledge on which to plan future interventions
- involve a rigorous approach to the literature
- assess validity, reliability, precision of estimates of effect, and the importance and relevance of these effects
- shorten the interval of time between research discovery and intervention implementation
- illuminate whether issues can be generalised or transferred to other settings
- may be replicated and updated as the methodology is documented
- can be used for the development of guidelines and policies in health service provision, and may be adapted for specific populations
- promote positive change in health care delivery and may prevent the use of health resources on interventions for which there is no effect, or which cause harm
- highlight which areas require further research.

(Adapted from Couzos, Metcalf, Murray, & O'Rourke, 1997; Muir Gray, 1997; NHMRC 1999b; Perkins, Simnet, & Wright, 1999)

An evidence based approach to assessing health care interventions may involve rating the evidence from a review of the literature according to the type of study design, as follows:

Table 1 Evidence ratings for interventions

Rating	Evidence
I	Evidence obtained from a systematic review of all relevant randomised controlled trials (RCTs)
II	Evidence obtained from at least one properly designed RCT
III-1	Evidence obtained from well-designed pseudo-RCTs (alternate allocation or some other methods)
III-2	Evidence obtained from comparative studies with concurrent controls and allocation not randomised (cohort studies), case control studies or interrupted time series with a control group
III-3	Evidence obtained from comparative studies with historical control, two or more single-arm studies or interrupted time series without a parallel control group.
IV	Evidence obtained from case series, either post test or pre-test and post-test

(NHMRC 1999a, 63)

Within an evidence based framework for assessing health interventions, systematic reviews and randomised controlled trials (RCTs) are thus given the highest ratings and observational studies, qualitative studies or expert opinion are given a low rating. However it should also be noted that:

The absence of excellent evidence does not make evidence-based decision-making impossible; what is required is the best evidence available not the best evidence possible (Muir Gray, 1997).

The NHMRC evidence ratings scale is utilised in Part Two of this review when evaluating tobacco interventions.

1.3.2 Support for evidence based approaches

The use of an evidence based approach has gained political support in many organisations over the last decade, including from the Commonwealth Health Minister (Kerridge, Lowe, & Henry, 1998; Muir Gray, 1997), and is now used extensively for decision-making on delivery of health services, development of public policy and decision-making on program funding.

There is some support for the use of evidence from other populations when deciding on service delivery to Indigenous Australians. Organisations involved in Indigenous health have shown interest in producing systematic reviews and evidence based guidelines based on relevant studies in other populations. Examples of systematic reviews include the production of evidence based guidelines on diabetes, otitis media, sexually transmitted diseases and the clinical management of alcohol-related problems (Couzos & Longbottom, 1998; OATSIH 1999; OATSIH 2000). One publication included information about an evidence based approach to a range of health problems in primary care, including tobacco use (Couzos & Murray, 1999).

1.3.3 Limitations of evidence-based approaches

However it is also acknowledged that there are some limitations to a solely evidence-based approach to decision making about public health interventions (King's Fund, 1999; NHMRC 1999a; Rychetnik & Frommer, 2000). These limitations include:

- *The evidence base may be inadequate.* It may prioritise medical rather than social solutions to public health problems (Rychetnik & Frommer, 2000) or aim at producing the best effect for an individual rather than change at a community level (Speller, Learmouth, & Harrison, 1997).
- *The target group or staff in the research may differ from the target group and staff involved in the implementation.* The results of systematic reviews of evidence may therefore not be generalisable (Glasziou & Irwig, 1995; Kerridge et al., 1998; Rothwell, 1995; Black, 1996; Celermaier, 2001).
- *The target context in the research may differ from the context for implementation.* For example, an experimental trial may not demonstrate the efficacy of an intervention in everyday practice and may not be sustainable (Black, 1996). Research to assess the value of interventions may be conducted on atypical interventions, in highly regulated environments, with high levels of program support in terms of staff support and dedication to the project and funding (Perkins et al., 1999). Factors such as lack of funding, other competing programs, political issues, cultural issues and socioeconomic factors also may mean that the intervention is not effective (King's Fund, 1999; Maynard, 1997; Rychetnik & Frommer, 2000).

1.3.4 Assessing the evidence on public health interventions

Consideration of the effectiveness of interventions should be a part of the decision-making process about implementation of interventions, but should not necessarily form the sole basis for the decision (King's Fund, 1999; Maynard, 1997; Perkins et al., 1999; Rychetnik & Frommer, 2000). Other relevant considerations could include choice from a range of evaluation types (including qualitative or economic evaluations) and the applicability of existing evidence to a target population and to the context of delivery to the target population (Rychetnik & Frommer, 2000).

Decisions should involve broad participation and partnership development, integration of evidence and service delivery, and the building of the skills of practitioners to generate and interpret evidence so as to build the knowledge base (King's Fund, 1999). This is particularly relevant for public health interventions.

Recently in the United Kingdom, contributors to the Cochrane and Campbell Collaborations (2000) contributed to systematic reviews of the evidence for public health interventions. These included recommendations on interventions in clinical care, for which there was good evidence, but also included recommendations on public health interventions, for which there was evidence of effectiveness at a population level.

Both the NHMRC evidence rating scale (1999a) and the ratings given by the contributors to the Cochrane and Campbell Collaborations (2000) will be used to rate clinical and public health tobacco interventions discussed in this literature review.

1.3.5 Assessing evidence from other populations

This literature review comments on existing reports of research and evaluation of Indigenous tobacco programs.

Few experimental trials have been conducted specifically with Aboriginal people. A review of 500 titles and abstracts addressing Aboriginal health issues resulted in 13 clinical trials, including 9 RCTs and 4 controlled trials (Morris, 1998), none of which involved interventions on tobacco. As for other disadvantaged groups, there has been little or no 'high' level research involving RCTs done among Indigenous people in the area of interventions aimed at behaviour change (Redman, 1996).

There is little published evidence on tobacco programs specifically for Indigenous people. This literature review therefore involves an assessment of published literature and 'grey' literature, and includes a discussion of whether evidence of effectiveness of tobacco interventions in other populations is likely to be applicable to Indigenous people.

1.3.6 Search strategy

Literature on Indigenous people and tobacco was identified from electronic searches of Medline, Psychlit, Cinahl, Health Star, APAIS, the Aboriginal and Torres Strait Islander Clearinghouse and the Cochrane database. Only literature published in English was used and searches were conducted for articles published from 1980 to March 2001. Electronic searches were conducted using the search terms tobacco and smok*, Aborigin* and Indig*, and health promotion. Hand searches were done of *The Aboriginal Health Worker* 1979–2000, *Aboriginal and Islander Health Worker Journal* 1991–1999, the *Australian Journal of Public Health* 1991–2000, and *Community Health Studies* 1977–1990.

In addition, information on program delivery was sought from all state and territory health departments, independent tobacco lobby groups, non-government organisations such as the National Heart Foundation (NHF), the Anti Cancer Council, the Asthma Foundation, and from Indigenous organisations. References were followed up as appropriate. The literature review was updated in March 2001 to reflect recent developments in the area of tobacco control programs for Indigenous Australians.

1.4 The problem

Much of the excess morbidity and premature mortality experienced by Indigenous people is due to lifestyle factors. Indigenous people experience high rates of cardiovascular disease, respiratory disease and other diseases, many of which are related to tobacco. Tobacco use is probably the single most important preventable cause of ill-health among Indigenous people (Cunningham & Condon, 1996).

Yet few health programs have addressed tobacco use in this population. There has been little or no evaluation of such programs and there has been little or no discussion about whether tobacco interventions for which there is evidence of effect in other populations are applicable for use with Indigenous people.



Part One
Indigenous Australians
and tobacco:
Dimensions of the
problem



2. Prevalence and patterns of tobacco use

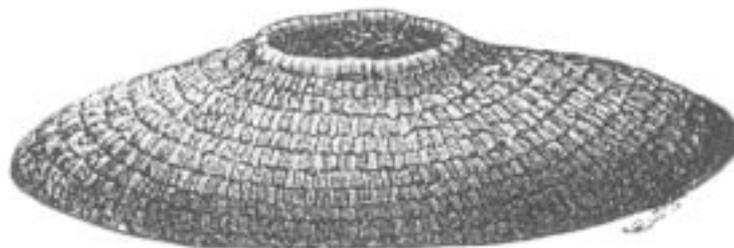
This chapter documents the prevalence of tobacco use among Indigenous Australians. It includes a brief historical overview of pre-contact and later history related to the use of native and other tobaccos and provides an account of contemporary patterns of use. Variables such as gender, age, occupation and education are examined and there is a brief review of passive smoking and the use of other drugs. Some of the complexities involved in the measuring and reporting of such data are also discussed.

2.1 Early History

Indigenous people traditionally used *pituri* and native tobaccos, especially in south-western Queensland and Central Australia. They came into contact with tobacco hundreds of years ago through trade with Macassans, and then through contact with Europeans, where tobacco sometimes was used as an instrument for social control. Indigenous Australians were paid with tobacco rations until as late as the 1960s. Indigenous peoples' history of colonisation and dispossession may possibly affect the implementation of tobacco programs.

2.1.1 Native tobaccos

Figure 1: Pituri bag (Lumholtz, 1980)



Indigenous people have used a naturally occurring tobacco -*pituri* (*Duboisia hopwoodii*) - for a long time. *Pituri* grows from Queensland to Western Australia, and Indigenous people would pick, dry and roast the leaves for use (Walker, 1984, 15). Combining the *pituri* with the highly alkaline ash from certain acacias releases the nicotine from bondage with acids and enhances its uptake in the body (Low, 1987). In such high doses, nicotine has a depressant effect and produces a trance-like state in the user.

An extensive trade network grew up around *pituri*, covering 550 000 square kilometres from the South Australian coast to Cape York, including New South Wales, Queensland and the Northern Territory (Anonymous, 1984). There were probably strict controls on production, distribution and consumption of the drug in traditional society. Some Indigenous people still use *pituri*.

Central Australian Indigenous people have long used native tobacco (also sometimes called *pituri*), which grows in arid and semi-arid regions of Central Australia. Arrernte (Arunta/Aranda) people smoked *ingulba* (*Nicotiana gossei*), which contained only nicotine, and the Pitjantjatjara smoked or chewed tobacco (*Nicotiana excelsior*), which they continue to use. The *Nicotiana* species that the Pitjantjatjara use are also known as *mingulpa*. Early non-Indigenous explorers described how native tobacco leaves were dried over hot sand, 'kneaded into little balls between the teeth in order to give cohesion, then rolled into a mass about the size of a thumb, then dried again and reserved for future use' (Purdie, 1982). The botanist Low claimed that when he tried chewing native tobacco it produced an immediate dreamy state that was mild, but lasted a long time. He claimed that he became dizzy and weak and nearly collapsed. When he smoked the leaves it produced a 'pleasant heightened state, followed by deep relaxation'. He did not notice any adverse effects (Low, 1987).

2.1.2 Introduced tobacco

Macassan fishermen and trepangers first introduced tobacco into Arnhem Land approximately 400 years ago. They seasonally visited the coast of northern Australia and, while they were there, traded tobacco and pipes with Indigenous people (Macknight, 1976).

In most cases, the trading relationship between Indigenous people and Macassans was a peaceful one. However, in some cases, tobacco and other goods were the triggers for major conflicts between Indigenous and Macassans in northern Australia (Dewar, 1992, 44; Macknight, 1976). Indigenous people in the East Arnhem region continue to use Macassan-style pipes.

Many Indigenous people came into contact with tobacco for the first time through missionaries, miners, fishermen, anthropologists and cattle station workers. They considered it to be a valuable commodity and traded it extensively along traditional trading routes.

The Europeans often used tobacco to pacify Indigenous people in the invasion of their territory, and it soon became part of regular government rations for Indigenous people. It has also been suggested that tobacco was one of the main reasons that some Indigenous people moved into centres of white settlement. People would travel a long way to gain access to tobacco (Cawte, 1993; Thomson, 1939), and it was seen as a highly desirable consumer item.

No more tobacco...no more hallelujah!

From the early 20th century until as late as the 1960s many Indigenous people were confined to missions, where food and housing were provided as a reward for involvement in mission activities, including tending crops and attending church. Tobacco was often supplied as part of the mission rations (Cole, 1975; Dewar, 1992), and in some cases the provision of this new commodity was the main factor in attracting Indigenous people to the missions (Altman, 1987). Morey, a police officer who patrolled the Arnhem Land region in the 1930s reported:

It is expected by the Missionaries that (with) the lavish gifts of tobacco, flour, tea, sugar, etc., that they will win the confidence of the natives. The Missionaries...would not leave the sanctuary of their boat but invite the natives out to them with promise of gifts...To our minds the whole scheme is wrong...It is really bribery (quoted in Dewar, 1992, 65).

Figure 2: Old woman smoking a pipe (Lumholtz, 1980)



Briggs, an Aboriginal tobacco worker, wrote that: Elders from my community have spoken to me about tobacco being used to reward people for staying on the missions and doing what they were told. If they left they would lose their tobacco ration...(Briggs, 1996).

Indigenous people, however, realised the bargaining power of tobacco in their relationships with missionaries. One Indigenous man told the Trappist monks at Beagle Bay that if there were to be 'no more tobacco' then there would be 'no more hallelujah' (Reynolds, 1982, 188).

Indigenous people also worked extensively in the cattle industry, and were often given minimal or no cash wages but were paid in rations, including tobacco and food (Rosser, 1985, 18) During the Second World War Indigenous men were recruited to the defence forces, and again were paid in rations, including tobacco (Thomson, 1992).

2.1.3 Early evidence of tobacco-related health problems

Internationally, rises in the incidence of lung cancer were noted during the 1920s and 1930s by pathologists and other medical practitioners. Wynder and Doll and Bradford Hill published studies in 1950 reporting a link between lung cancer and smoking. Meanwhile, Indigenous people were still not able to vote, and were still not paid wages at the same rate as non-Indigenous people. It wasn't until 1967 that this changed, and until that time tobacco was often part of people's rations and payment (Austin, 1992).

2.2 Contemporary prevalence and patterns

Promotion of an evidence based approach in the delivery of health services should first involve an evidence based needs assessment, including adequate estimations of the frequency of health problems within a population (Muir Gray, 1997, 172-7). This section examines the prevalence and patterns of tobacco use in Indigenous Australian and other populations and considers a number of variables which appear to influence patterns of use.

2.2.1 The general Australian population

The prevalence of smoking has decreased in the general Australian population over the last 20 years, with the decline being slowest in women aged 25–44 years who have a low level of education (AIHW 1996; NDS 1994). The prevalence of regular smokers in Australia declined from 24% in 1995 to 22% in 1998, with smoking rates declining from 26% to 25% in men, and from 22% to 20% in women (AIHW 1999, 12).

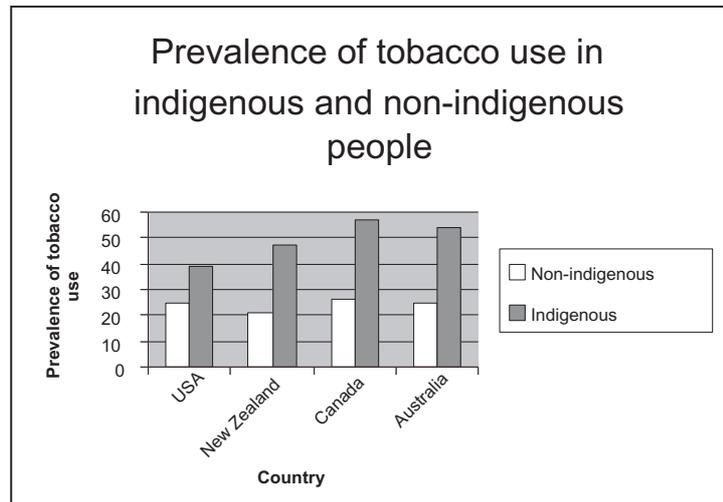
Results of a more recent review indicate that the prevalence of smoking in the general population does not appear to be continuing to decline (Hill, White, & Scollo, 1998). As more people give up in the general population, those who remain as smokers may be heavier or more addicted smokers (Pederson, Bull, Ashley, & MacDonald, 1996).

Prevalence of smoking may vary according to ethnic background. Hill and White assessed the prevalence of smoking in Australians by country of birth and found that those born in Asia had the lowest prevalence of smoking; only 8% of Asian women smoked, although the prevalence for Asian-born men did not differ significantly from men of other origins. Australian-born males and European-born females had the highest prevalence of smoking. Asian-born men and women consumed fewer cigarettes than other smokers, with European-born men and women consuming the highest number of cigarettes, although the association between place of birth and consumption was only significant for men ($p < 0.01$) (Hill & White, 1995).

2.2.2 Other indigenous peoples

In general the indigenous people within developed nations use tobacco more than their non-indigenous counterparts. The following graph illustrates this disparity in four countries - the USA, New Zealand, Canada and Australia.

Graph 1: Prevalence of tobacco use in indigenous and non-indigenous people



2.2.3 Indigenous Australians

Numerous surveys and studies have documented the prevalence of tobacco use among Indigenous people around Australia. The following table summarises these findings:

Table 2 Smoking prevalence - Indigenous people

Author	Date	Sample	Location	Males %	Females %	Total %
Kamien (1976)	1976	320	NSW – rural	–	71	–
Bastian (1979)	1979	248	WA – rural	56	17	–
Simons et al (1981)	1981	224	NSW – rural	40	33	36
Australian Bureau of Statistics (ABS)(1986)	1986	–	NT – urban	–	–	40
Watson (1986)	1986	206 Pregnant women	NT – rural (East Arnhem)	–	72	–
Watson et al (1988)	1988	1764	NT total Top End Katherine Central Australia Chewed tobacco	71 81 71 59 11	43 73 35 9 38	–
National Health Survey (ABS 1990)	1989–1990	–	National	–	–	50
Urapuntja Health Service (1990)	1990	544 >15 yrs	NT – rural	52	2	–
Stephenson & Lenz (1991)	1991	–	NSW – rural	–	–	70
Guest (1992)	1992	306 13–54 yrs	Vic – rural Chewed tobacco	67 1	63 1	64 –
Lake (1992)	1992	36 Health staff	SA	–	–	39
Smith (1992)	1992	490	WA – rural Chewed tobacco	54 16	24 23	–
Thompson (1992)	1992	229	Qld – rural	85	76	–
Andrews & Stephenson (1993)	1993	20–70 yrs	NSW – rural	76	69	–
Hogg (1994)	1994	273 >18 yrs	NSW – rural	–	–	56
National Aboriginal and Torres Strait Islander Survey (NATSIS)(ABS 1996)	1994	197 500 >=13 yrs	National NSW Vic Qld SA WA Tas NT	54 52 53 53 60 51 49 59	46 50 61 44 52 45 43 36	–
NDS Household Survey (CDHSAH 1996)	1994	–	National – urban	58	50	54
Andrews (1997)	1995	22 Health workers	NSW	63	64	64
Hoy (1997)	1992–1994	438	NT – rural	83	70	–
Markey (1996)	1996	137 18–40 yrs Footballers	NT – rural	79	–	–
Gray, Ryan, Ryan & Williams (1997)	1997	110 8–17 yrs	WA – rural	–	–	38
Shoobridge (1997)	1997	24 Injecting drug users	SA – rural	–	–	96
Veale (1997)	1997	261 7–19 yrs 332 20–80 yrs	Qld, NT – rural	19 55	9 29	14 40
Gilchrist (1998)	1998	200	WA – urban Chewed tobacco	–	49 6	–
Forero et al (1999)	1999	346 School students 12–17 yrs	NSW	–	–	35

Generally these figures are considerably higher than those for the general Australian population. In the National Drug Strategy Household Survey in 1998, 29% of Australian males aged 14 years or older were current smokers, 43% were ex-smokers and 28% had never smoked. 24 % of Australian women aged 14 years or older were current smokers, 37% were ex-smokers and 40% had never smoked (AIHW 2000a, 6).

Some surveys and studies have documented tobacco use status among Indigenous people:

Table 3 Smoking status – Indigenous people

Author	Date	Sample	Location	Smokers %			Ex-smokers %			Never-smoked %		
				Men	Women	Persons	Men	Women	Persons	Men	Women	Persons
Kamien (1976)	1976	320	NSW – rural	87	71	–	–	–	–	13	29	–
ABS National Health Survey (1990)	1989 – 1990	–	National	–	–	50	–	–	18	–	–	32
Guest (1992)	1992	306 13–54 yrs	Vic – rural	67	63	–	12	13	–	20	24	–
Lake (1992)	1992	36 Health staff	National	–	–	39	–	–	22	–	–	33
Hogg (1994)	1994	273	NSW – rural	56	48	–	15	18	–	42	34	–
Perkins, Sanson-Fisher, Blunden, Lunnay, Redman, Hensley (1994)	1994	459 Patients at an Aboriginal Medical Service (AMS)	NSW urban	51	49	–	10	8	–	–	–	–
Gilchrist (1998)	1998	200 Patients at an AMS	WA urban	–	–	49	–	–	21	–	–	31

Prevalence of tobacco use varies among Indigenous people according to geographic area. For example, Indigenous people in the coastal communities of the Northern Territory have a much higher prevalence of smoking than those in Central Australia (Watson et al., 1988). The prevalence of smoking also varies between urban areas and rural areas. In the NATSIS survey, the prevalence of tobacco use among Indigenous men living in small rural communities was higher than that among Indigenous men living in capital cities or other urban areas, but was lower in women (Cunningham, 1994).

In the NATSIS survey, TSI people, who mainly lived in the Torres Strait, Cairns or Townsville regions, were significantly less likely to report tobacco use. The prevalence of tobacco use among TSI men was 48%, compared to 57% in Aboriginal men and 55% in men of both Aboriginal and TSI origin. The prevalence of tobacco use among TSI women and women of both Aboriginal and TSI origin was 42%, compared to 49% in Aboriginal women.

Little data has been collected from the same populations to give an indication as to whether the smoking patterns of Indigenous people are changing. In one study, the proportion of Indigenous male smokers was declining in all age groups, but the proportion of female smokers was increasing, particularly in younger age groups (Andrews & Stephenson, 1993).

2.2.4 Gender and age

As with the general population, the prevalence of smoking among Indigenous women is generally lower than among Indigenous men. This may differ between regions. In some areas the prevalence of smoking among women is similar to men, while in other areas women may be less likely to smoke (Watson et al., 1988). For example, in a large national survey, 56% of Indigenous men living in rural areas smoked, compared with 41% of Indigenous women (ABS 1996). The prevalence of tobacco use among women exceeded that of men only in a small number of regions – Ballarat, Narrogin and Wangaratta – in the NATSIS survey (Cunningham, 1994).

Studies of the general Australian community show that young adults have the highest rates of smoking of any age group. Although there are more ‘never-smokers’ in younger age groups, there are more ex-smokers in the older age groups (Hill et al., 1998).

Table 4 Smoking prevalence by age – Australia

Author	Year	Sample	Location	Smoking prevalence – men %	Smoking prevalence – women %
1998 NDS Household Survey(AIHW 1999)	1998	10 000	National		
		14–19 yrs		24	26
		20–29 yrs		41	37
		30–39 yrs		32	28
		40–49 yrs		30	25
		50–59 yrs		25	17
		60+ yrs	17	10	

A range of surveys and studies have documented the prevalence of tobacco use among Indigenous people of different ages:

Table 5 Smoking prevalence by age - Indigenous Australians

Author	Year	Sample	Location	Smoking prevalence – males %	Smoking prevalence – females %	Smoking prevalence – total %
Simons (1981)	1981	224 21–39 yrs 40–59 yrs	NSW– rural	41 36	39 19	–
Watson, Fleming & Alexander (1988)	1987–1988	1764	NT			
		15–20 yrs		66	42	54
		21–30 yrs		78	43	60
		31–40 yrs		71	46	57
		41–50 yrs		80	39	57
		51–60 yrs		60	44	52
>60 yrs	57	40	47			
Guest (1994)	1992	13–17 yrs	Vic	63	56	–
Hogg (1994)	1994	273	NSW – rural			
		18–24 yrs		47	53	–
		25–34 yrs		39	54	
		35+ yrs		63	45	
Perkins, Sanson-Fisher, Blunden, Lunnay, Redman, Hensley (1994)	1994	459	NSW –urban			
		Patients at an AMS				
		< 25 yrs		49	46	–
		25–39 yrs		55	61	
40+ yrs	52	30				
NATSIS (ABS)	1994	13–15 yrs		15	14	–
		16 yrs		30	32	
		17 yrs		45	36	
Andrews, Ralph, Undy, Oates, Naden (1996b)	1996	195	NSW – rural			
		11–17 yrs		13	12	25
Gray, Morfitt, Ryan & Williams (1997)	1997	110	WA – rural			
		8–17 yrs		–	–	38
		8–12 yrs				8
		13–14 yrs				10
15–17 yrs			20			
Johnston (1997)	1997	126	NT – rural			
		5–17 yrs		–	–	37 (ever smoked) 100 (ever smoked)
		16–17 yrs				
Gilchrist (1998)	1998	200 Women	WA – urban			
		<30 yrs		–	58	–
30–44 yrs		53				
Dunne, Yeo, Keane and Elkins (2000)	1999	507	Qld 9-13 yrs			
				–	–	14 (preceding year) 3 (> 10 cigs)

Indigenous populations have a high percentage of young people (McLennan & Madden, 1997, 8), which may inflate the overall prevalence of tobacco use within the population. However, it appears that the prevalence of tobacco use is much higher among Indigenous young people than among young people in the general population.

Kamien (1976) reported that 49% of Indigenous men and 11% of Indigenous women who smoked were regular smokers by the age of 12 years and 94% of men and 53% of women who smoked were regular smokers by the age of 16 years.

In their survey of Indigenous people in the Northern Territory, Watson, Fleming and Alexander found that most Indigenous adolescents in the Top End and Katherine took up smoking before the age of 15 years, and began smoking with family or friends, mostly without their parents' permission. Indigenous adolescents in Central Australia were less likely to smoke, but if they did, were likely to take it up before the age of 20 years – with friends, and without parental permission (Watson et al., 1988, 70-71).

In the NATSIS survey, of all Indigenous people who had ever smoked, 64% tried their first full cigarette before the age of 16 years, and 36% had tried one before the age of 14 years, whereas the mean of first episode of tobacco use was 15.8 years (ABS 1997a). Males were more likely to have started smoking before the age of 11 years. Some Indigenous children may start smoking as young as 6 years of age (Johnston et al., 1997).

In a survey of Aboriginal children and adolescents in Albany, WA, the mean age of reported first use among frequent smokers aged 15–17 was 9.7 years, with 24% reporting first smoking before the age of 8 years and 71% before the age of 13 years (Gray et al., 1997).

However Indigenous adolescents do not always start using tobacco at a younger age than other Australians. In a study of children living in Arnhem Land, 151 Indigenous and 246 non-Indigenous children aged 11–15 years were asked about smoking status: 11% of non-Indigenous boys smoked, compared with 26% of Indigenous boys. However 29% of non-Indigenous girls smoked, compared with a lower 17% of Indigenous girls (Watson, Watson, & Siskind, 1986).

2.2.5 Occupation and education

In the general Australian population, smoking prevalence is higher among those people engaged in blue-collar work than those in white-collar work.

Table 6 Smoking prevalence by occupational group – Australia

Author	Year	Sample	Location	Smoking prevalence – men %	Smoking prevalence – women %
Hill, White, Scollo (1998)	1995	5699	National		
		Lower blue collar		41	32
		Upper blue collar		27	23
		Lower white collar		24	24
		Upper white collar		19	22

Economic disadvantage may be associated with a greater prevalence of smoking. Mathers (1994, 172) reported that adults aged 25–64 years living in areas of greatest socioeconomic disadvantage had a prevalence of smoking that was 1.4 times higher for males and 1.5 times higher for females, than their counterparts in areas of least socioeconomic disadvantage.

Indigenous people are more likely to be blue-collar workers or to be recipients of welfare benefits. In the 1991 Census, 35% of Indigenous adults aged 15 and over were unemployed, and those who were employed were more likely to be labourers or in related work (ABS 1994). Within the Indigenous population, smoking status may be correlated with employment status.

Guest's analysis of Indigenous and non-Indigenous smokers in rural Victoria found that when socioeconomic variables were accounted for, the difference in smoking prevalence between the groups decreased; there was no significant difference between Indigenous and non-Indigenous men who did not receive some sort of welfare benefit (Guest et al., 1992).

In 1994 Hogg reported that from a sample of 273 Indigenous people in New South Wales, the prevalence of tobacco use was 27% among those who were employed and 54% among those who were unemployed. The prevalence of tobacco use among employed Indigenous people was thus lower than that for lower blue-collar workers nationally (Hill et al., 1998).

The NATSIS survey also found that tobacco use was lower among Indigenous people with higher incomes and among those who owned their own homes. The prevalence of tobacco use was 70% among Indigenous men employed on community employment programs, 66% among those who were unemployed, and 48% among those who were employed. The prevalence of tobacco use was 47% for Indigenous women employed on community employment programs, 61% for those who were unemployed, and 42% for those who were employed (ABS 1996; Cunningham, 1994).

As would be expected, higher levels of education are also associated with a lower prevalence of smoking. In 1995, 32% of Australian men and 26% of Australian women whose highest level of schooling was year 9 smoked, 33% of men and 28% of women who had completed Year 10 and 11 smoked, 26% of men and 22% of women who had completed Year 12 smoked, and 17% of men and 14% of women who had graduated from university smoked (Hill et al., 1998).

Indigenous people are less likely than other Australians to have attained higher levels of education. In the 1996 Census, 84% of Indigenous people had no qualifications, compared to 56% of the Australian population (ABS 1998, 53). Education level also appears to affect the prevalence of tobacco use among Indigenous Australians.

Table 7 Smoking prevalence by educational level – Indigenous people

Author	Year	Location	Smoking prevalence men %	Smoking prevalence women %	Smoking prevalence total %
Hogg (1994)	1994	NSW rural			62
		No secondary education			46
NATSIS (Cunningham, 1994)	1994	National			
		< Year 10	61	49	
		Year 10-11	62	56	
		Year 12 or more	36	41	

2.2.6 Amount of tobacco consumed

In the 1998 National Drug Strategy Household Survey, both male and female smokers in the general population smoked an average of 14 cigarettes per day (AIHW 1999).

A small number of studies have documented tobacco consumption among Indigenous people:

Table 8 Number of cigarettes smoked per day by Indigenous people (self-reporting)

Author	Year	Sample	Location	Males cigarettes smoked per day	Females cigarettes smoked per day	Total cigarettes smoked per day
Watson (1986)	1986	206 Pregnant women	NT rural		>20 61%	
Watson, Fleming & Alexander (1988)	1987 1988	1764	NT	1 10 56%	1 10 57%	1 10 56%
				11 20 21%	11 20 21%	11 20 21%
				21 30 19%	21 30 18%	21 30 19%
				31 40 2%	31 40 3%	31 40 2%
				41 50 1%	41 50 1%	41 50 1%
ABS, NATSIS (ABS 1996 p22)	1994	82 500	National 1	>60 0.7%	>60 0.3%	>60 0.5%
Markey (1996)	1996	173 13 40 yrs footballers	NT rural	10 18%	1 10 17%	1 10 17%
				11 20 16%	11 20 16%	11 20 16%
				21 30 15%	21 30 11%	21 30 13%
				31 40 3%	31 40 1%	31 40 2%
				>40 3%	>40 1%	>40 2%
Hoy (1997)	1997	438	NT remote			>25 42%
Gilchrist (1998)	1998	200	WA urban		>10 62%	

Indigenous people appear to smoke a similar amount to that smoked by other Australians.

Tobacco consumption has been measured via community store turnover in some instances. In a study of tobacco turnover at a community store in Maningrida, a remote community in the Northern Territory, Goto estimated the amount smoked per smoker. The estimated cigarette consumption fell between 1988 and 1995 from 25 cigarettes per day to 14 cigarettes per day. Orders for loose tobacco also fell in this time, from 4.4g per person in 1988 to 1.3g in 1995 (Goto, 1998).

2.2.7 Type of tobacco used

Most Australians who use tobacco smoke cigarettes. In 1995, 18% of Australian men smoked cigarettes, 1% smoked pipes or cigars and 8% smoked roll-your-own tobacco. 19% of Australian women smoked cigarettes, fewer than 1% smoked pipes or cigars and 4% smoked roll-your-own tobacco (Hill et al., 1998).

Similarly most Indigenous people who use tobacco smoke cigarettes. However, some Indigenous people use other types of tobacco products, including roll-your-own tobacco, cigars, pipes and chewing tobacco.

Table 9 Prevalence of tobacco use by type – Indigenous people

Author	Year	Sample	Location	Cigarettes, roll -your own or pipe%	Chewing tobacco %
Watson, Fleming & Alexander (1988)	1987	1764	NT		
	1988	Men Women		71 43	15 38
Guest (1992)	1992	306	Vic rural		0.8
		Men Female		67 63	
Gilchrist (1998)	1998	200 Women	WA urban	49	6

The type of tobacco preferred also varies according to geographical region and gender. For example, some Indigenous people favour chewing tobacco, particularly women in Central Australia, whereas in the Top End of the Northern Territory, few people of either sex chew tobacco. People may chew commercial tobaccos such as Log Cabin or Drum, mixed with ash from certain trees, or native tobaccos or *pituri*.

Women in the East Arnhem region sometimes use a crab claw as a pipe, while the men smoke through Macassan pipes, using commercially produced loose tobacco (Watson et al., 1988).

Figure 3: Macassan pipe



2.2.8 Passive smoking

Because of the higher prevalence of tobacco use among Indigenous people, it is likely that many Indigenous people are exposed to environmental (passive) tobacco smoke. In a survey by Gilchrist (1998) of Indigenous women presenting to a Perth Aboriginal Medical Service, 35% of non-smokers were subject to environmental smoke in their homes.

In a study of Indigenous infants' exposure to environmental tobacco smoke in Western Australia, 80% of infants were regularly exposed to tobacco smoke (Eades & Read, 1999).

Overcrowding of housing may contribute to a higher exposure to environmental tobacco smoke. Many Indigenous people live in poor housing where overcrowding is a problem. As chewed tobacco does not produce smoke, the risk of exposure to tobacco smoke is less in areas where people chew tobacco.

2.2.9 Cannabis and other drugs

Cannabis (marijuana) is derived from the plant *Cannabis sativa* (Hall, Solowij, & Lemon, 1994). Although cannabis may be smoked in a pipe (bong) or using a bucket, cannabis is often smoked together with tobacco as a 'joint' and as such may also give exposure to the harmful effects of tobacco. Some Indigenous people smoke cannabis, in addition to smoking tobacco (AIHW 2000a, 8; Forero et al., 1999; Gray et al., 1997; Perkins et al., 1994; Shoobridge et al., 1997).

People who smoke may also be more likely to use other substances, for example, people who smoke may be drinkers; this also applies to Indigenous people (Cunningham, 1994; Watson et al., 1988).

2.2.10 Social patterns

Patterns of smoking among Indigenous people may differ from those among non-Indigenous Australians. Watson, Fleming and Alexander's (1988) survey of Indigenous people in the Northern Territory found that adults shared tobacco and cigarettes with others and also shared individual cigarettes. Tobacco use patterns varied according to the amount of tobacco available. People smoked heavily in the first few days after 'payday' and then little towards the end of the pay fortnight.

In a study of the domestic economy of Gunwinggu people living in a remote outstation between Maningrida and Oenpelli (Kunbarllanjnja) in Western Arnhem Land, Altman (1987, 161) reported that sharing was extensive. The extent of sharing depended on the degree to which goods were in surplus or absent, but even when there was no surplus, sharing occurred. For example, a pipe may have been passed around or a handful of tobacco shared around.

In Gilchrist's survey of Indigenous women presenting to an Aboriginal Medical Service in Perth, (1998) smokers commented that if cigarettes were not available due to lack of money, transport or someone to borrow a cigarette from, then women went without cigarettes. A few of the women interviewed said that there was an expectation that a smoker who had no cigarettes would be given cigarettes, and that someone who had cigarettes had an obligation to share them. Some people only smoked when they drank alcohol; 50% of these people said that they never bought cigarettes.

2.2.11 Measuring and reporting issues

Most research on Indigenous tobacco consumption relies on self-reporting. There are some differences of opinion about the validity of such a measure, however. While most researchers acknowledge its usefulness, they also suggest some complementary or alternate strategies.

Patrick et al. (1994) undertook a meta-analysis of 26 published reports comparing self-reported tobacco intake and biochemical measures. They concluded that self-reports of smoking are accurate in most studies, that accuracy could be improved by biochemical evaluation, and that this should be considered in population and intervention studies. They suggested that if any biological measure were to be used, it should be cotinine plasma (Patrick et al., 1994). Other biochemical methods of validation of self-reported smoking status may also include urinary or salivary cotinine, thiocyanate or carbon monoxide (expired air) monitoring (Fowler, 1990; Patrick et al., 1994; Perkins et al., 1994; Richmond & Webster, 1985; Russell, Stapleton, Jackson, Hajek, & Belcher, 1987).

Self-reports of amount smoked may underestimate the amount of tobacco consumed. Smokers, including Indigenous smokers, may underestimate their tobacco consumption (Todd, 1978) or deny smoking (Jamrozik et al., 1984; Watson et al., 1988, 41).

All studies of prevalence of tobacco use in Indigenous people have involved assessing self-reported tobacco status. Watson, Fleming and Alexander (1988), in their survey of Top End communities, used showcards to quantify the amount smoked. However Indigenous smoking practices, such as sharing individual cigarettes may make it difficult for a person to estimate the amount they have smoked. The amount smoked may vary within short periods of time due to the availability of money. Indigenous concepts of time and numeration may also differ from European/Western models. These factors may reduce the validity of self-reporting as a measure of smoking.

In Watson's survey of school children in Nhulunbuy (1986), non-Indigenous children were comfortable about reporting their smoking status while children in Indigenous schools were more likely to respond to a verbal question about smoking status with the answer that they thought was the 'best' answer.

Some major programs in other populations have used tobacco sales as a method of assessing the effect of health promotion programs about tobacco (COMMIT research group, 1995). This strategy has also been used in other health research. For example, nutrition programs for Indigenous people have measured the outcomes of nutrition education programs by measuring the changes in consumption of food by collecting data on the turnover of products sold in the remote community stores (Lee, Bailey, Yarmirr, O'Dea, & Mathews, 1994).

Indigenous people's consumption of tobacco has been assessed by measuring sales or orders of tobacco products through remote community tobacco retailers (Goto, 1998; Watson et al., 1988). At the time of the survey conducted by Watson, Fleming and Alexander, reasonable data on the number of cigarettes and tins of tobacco sold in the survey communities was available. Their findings revealed that there was an underestimation of the amount smoked compared to the amount sold. For example, one community had a population of 457 people, of whom 375 were smokers. The average amount smoked per day was reported to be 13.5 cigarettes per day. However, when tobacco sales were analysed, the figures were almost double (an average of 26.8 cigarettes per person per day). In another example only 44% of tobacco product sales were accounted for by self-report (Watson et al., 1988, 146-7).

It should be noted, however, that this method would not be as suitable for assessing the change in consumption within urban Indigenous populations, as tobacco products could be purchased at a variety of locations.

2.3 Summary

- The prevalence of tobacco use among Indigenous Australians is much higher than among other Australians. Nationally, approximately 54% of Indigenous Australians smoke, compared with 22% of all Australians.
- In some regions, up to 83% of Indigenous men and up to 73% of Indigenous women use tobacco.
- The prevalence of tobacco use by Indigenous people is also higher than for other ethnic groups within Australia, as well as being higher than other indigenous populations where data was available.
- Indigenous smokers use about the same amount of tobacco as smokers in the general population.
- Some Indigenous people chew tobacco.
- As with the general population, Indigenous people are more likely to smoke if they have a low level of education or are unemployed.
- Indigenous people are also more likely to take up smoking at a younger age.
- Many Indigenous people are exposed to environmental smoke (passive smoke).
- Tobacco consumption among Indigenous people is probably best measured by self-report, but the use of visual aids such as showcards may be useful in assisting people to quantify the amount smoked.
- Tobacco consumption in remote communities may also be measured by assessing turnover in community stores, but store turnover is unlikely to be a useful measure for urban Indigenous people.

The high prevalence of tobacco use among Indigenous people indicates that there is a need for interventions to reduce the prevalence of tobacco use in this population and to reduce exposure to environmental tobacco smoke.

3. Why do Indigenous people use tobacco?

Indigenous people use tobacco for many of the same reasons as other people in Australia and elsewhere. However there are also some important differences between their usage and motivations and those of the general Australian population. This chapter explores these differences and argues that the greater prevalence of tobacco use among Indigenous Australians can be explained by a number of historical, social, economic and cultural factors which have resulted in important lifestyle differences and inequities.

3.1 Colonisation and dispossession

The effect of Indigenous people's history on their health must be acknowledged. In fact this was precisely the first recommendation of the NHMRC's report *Promoting the Health of Indigenous Australians*. The colonisation of Australia involved the destruction of hunter-gatherer lifestyles, disruption and erosion of language and culture, creation of unhealthy living and social conditions, the introduction of new disease, the devaluation of cultural responses to health problems, and general subordination due to racism. These factors may all contribute to higher rates of tobacco use among Indigenous people.

Observers such as Sibthorpe (1988) and Flick (1998) have specifically linked high levels of tobacco use with the dispossession and loss resulting from colonisation, while Flick also commented that government and private industry have been complicit in supporting the abuse of drugs like tobacco.

Being a member of the Stolen Generation is also identified as a risk factor for tobacco use. In the NATSIS survey, the prevalence of tobacco use among Indigenous men who had been taken away from the family as children was 70% compared to 55% in men who had not been taken away. The prevalence of tobacco use in Indigenous women who had been taken away was 60% compared with 47% among women who had not been taken away (Cunningham, 1994).

Many Indigenous people were not paid in wages until 1967, being paid instead in rations in the form of flour, clothes and tobacco. Many current smokers in their 50s and 60s may have initially acquired their addiction at a time when they were paid in tobacco.

A long history of oppression, and of being forced to do what non-Indigenous people want them to do, may mean that some Indigenous people consciously ignore advice given in non-Indigenous or mainstream health promotion programs:

Aboriginal people have been killed off, oppressed and trodden on by white skinned people and their systems, so if a white skinned person came to me today and said smoking is no good for you, then I would tell them to piss off because while I have a cigarette I feel good and look what these people have done to my relatives so why should I trust them?
(quoted in AMA & APMA, 2000, 40)

3.2 Socioeconomic inequity

Low educational achievement, high rates of unemployment and poor housing conditions are all linked with higher rates of tobacco use. A socioeconomic profile of Indigenous Australians reveals the following patterns of inequity. Indigenous Australians are:

- less likely than the general population to have a post-school educational qualification.
- more likely to be unemployed – in the 1996 Census, the unemployment rate for Indigenous Australians over the age of 15 was 23%, compared with 9% for other Australians (ABS 1998).
- more likely to have a lower median weekly income – at the 1996 Census the median

weekly income of Indigenous people in 1996 was \$218, compared with the median weekly income for the whole population of \$294 (ABS 1998).

- less likely to own their own home – at the 1996 Census, 31% of Indigenous households owned or were buying their own home, compared with 71% of other households.
- more likely to live in crowded homes – at the 1996 Census Indigenous households were larger than other households (3.7 people compared to 2.7 people) and almost 7% of Indigenous people lived in households with 10 or more people (AIHW 2000b, 215-16). Being in constant contact with a large number of others for whom smoking is an acceptable norm, may reinforce the impetus to start or continue smoking.

As with other Australians, socioeconomic disadvantage, including lower income, lower occupational status and lower levels of education among Indigenous people are likely to contribute to a greater prevalence of tobacco use.

3.3 Knowledge of harmful effects

Many smokers may not be aware of the harmful effects of tobacco. For example, in a survey of the general Victorian population in 1995, only 50% said they believed lung cancer was caused by smoking and only 36% believed heart disease was caused by smoking (Mullins & Borland, 1995).

As would be expected, health professionals have a greater level of awareness of the harmful effects of smoking. However there are some telling differences between Indigenous and non-Indigenous health workers in this regard. In a survey of staff of health agencies serving Indigenous people around Australia, 79% of Indigenous health staff believed smoking caused lung cancer, compared to 98% in the non-Indigenous group. Eleven per cent thought that smoking did not cause heart disease, compared to 2% of the non-Indigenous groups. Eighty-six per cent agreed it was dangerous to health and should be discouraged, compared to 100% of non-Indigenous staff. Fifty-eight per cent of Indigenous staff thought there was a strong link between smoking and the poor health of Indigenous people, compared to 79% of the non-Indigenous group (Lake, 1992).

In Gilchrist's survey of Indigenous women presenting to a Perth Medical Service (1998), 26% did not believe that smoking caused lung cancer, and 21% did not believe that smoking caused heart problems. Smokers were also less likely than non-smokers to believe that smoking was harmful during pregnancy.

The 1994 National Drug Strategy survey (CDHSH 1996) found that only 5% of Indigenous people believed that smoking could damage their health and 31% believed that a pack or more a day could be safely smoked. Fifty-nine per cent thought that regular smoking was 'OK', compared to 36% of the general population. Only 3% believed smoking to be the cause of most drug-related deaths, compared to 33% of the general population (Seventy-one per cent of drug-related deaths are, in fact, due to tobacco smoking) (AIHW 1996).

Watson, Fleming and Alexander (1988) asked Indigenous people about the problems caused by tobacco. Most groups ranked health problems as the most common problem. When asked to identify the major problems related to tobacco, women identified health problems, economic problems and the addictive properties of tobacco. Men identified health problems and the addictive properties of tobacco.

A series of focus groups with Indigenous people from Victoria to evaluate the 1997–1998 National Tobacco Campaign (NTC) found that knowledge about the health effects of tobacco was reasonable, but that there were several misconceptions about tobacco, including:

- Passive smoking is worse than smoking.
- Smoking during pregnancy is not harmful.
- Roll-your-own tobacco is not as bad as filtered cigarettes (NTC 1999, 239, 242).

Many participants knew that smoking caused respiratory illnesses, but were not aware that use of tobacco contributed to heart disease.

In a report commissioned by the AMA on Indigenous smoking, 15 professionals involved in tobacco control for Indigenous people and focus groups of Indigenous community members were interviewed about tobacco use among Indigenous people. Participants claimed that the smell of smoking and the acute physical effects, such as shortness of breath while playing sport, were more of a deterrent to smoking than knowledge of the health effects of tobacco use (AMA & APMA 2000, 8-9). Many participants were aware that smoking was linked to lung cancer; they felt that this was biologically plausible as smokers breathe in smoke, and many smokers had learnt that smoking caused lung cancer from health warnings on cigarettes packets.

Johnston (1997) found from a survey of Indigenous school children that more than 70% gave the correct response to questions about the effect of smoking on fitness, the heart and risk associated with passive smoking. Sixty to seventy per cent gave correct responses to questions about the relationship between smoking and lung cancer, respiratory symptoms and whether smoking could harm the health of adults. Less than 60% gave correct responses to questions about the content of cigarettes and the effect of smoking on life expectancy. Less than 10% said that smoking made them look good, that it was OK for children to smoke or that smoking by children was something that parents agreed with.

Indigenous people may also not be aware of the harmful effects of environmental tobacco smoke. In Gilchrist's survey of Indigenous women presenting to a Perth Aboriginal Medical Service (1998), 58% said that they knew the meaning of the term 'passive smoking', but only 56% could give a correct definition. Sixty-two per cent of respondents said that they were worried by passive smoking; only 37% of smokers said that they were worried by passive smoking.

Given the discrepancies between all of these studies, it is difficult to reach any definite conclusions. Knowledge among Indigenous Australians about the health effects of tobacco is obviously variable, with some studies indicating that knowledge is higher than for other Australians and other studies showing the opposite.

Nonetheless, it would appear that there is considerable evidence of ignorance or misconceptions about the specific harmful effects of tobacco, among Indigenous people. While the data on children is limited, there are grounds for cautious optimism that their knowledge may be better than that of adults. Together with the data on the greater knowledge of health professionals, there are implications here for educational interventions. These issues will be discussed later in Part Two.

3.4 Social and cultural factors

3.4.1 Cultural beliefs

There is some evidence that strong links to a traditional Indigenous lifestyle are linked to higher prevalence of tobacco use. However the NATSIS survey in 1994 also found that socioeconomic status and demographic factors are even more closely linked to tobacco use.

This survey found that three indicators of traditional links were correlated to some extent with higher prevalence of tobacco use. These indicators were: recognition of homelands; believing in the important role of elders; and English not being a first language. With one marked exception, both men and women adhering to traditional beliefs and practices were more likely to use tobacco. The exception was Indigenous women who spoke English as a first language, where the prevalence of tobacco use was 51% compared to 36% in women who did not (Cunningham, 1994).

Traditional beliefs held by some Indigenous people may influence their tobacco use or their perceptions of the benefits of quitting. In some traditional Indigenous societies, people may believe serious illnesses (that are according to the biomedical model caused by tobacco) to be caused by sorcery, interpersonal conflict or the breaking of taboos. Indigenous belief systems may promote an external locus of control and place emphasis on the community above the individual. The Western biomedical model, by contrast, adheres to individualism.

Reid and Mununggurr's (1977) discussion of a series of cases of young men from a remote settlement in Northern Australia is relevant here. These young men had been heavy drinkers and had died suddenly. The community was very concerned, as they were young men with young families, who had important ceremonial duties. Local explanations focussed upon the role of the *galaka*, or sorcerer, believed to cause such illness.

Indigenous people may believe that the tobacco is a lesser factor in causation than, for example, sorcery. There are implications here for the way Indigenous people respond to health promotion messages about the risks of smoking.

Tobacco use may also play an important role in traditional life. In his study of the economy of a remote out station between Maningrida and Oenpelli in Western Arnhem Land, Altman (1987, 63), reported that the accumulation of cash, potentially for purchasing tobacco, was seen as essential for staging ritual cult, mortuary and exchange ceremonies. Cash and market goods (including tobacco) were sometimes exchanged for esoteric knowledge (154). Market goods, particularly staples (including tobacco), were seen as being free of *yalan* – free from traditional restrictions as to whom the item should be given.

There are anecdotal reports of tobacco being incorporated into traditional ceremonies – for example, being given as a gift at a funeral. In Goto's survey of sales through the store at Maningrida (1998), a rise in tobacco sales over one period, 1988-1992, could be explained by a greater amount of ceremony in those years, resulting in an increased demand for tobacco.

It is clear from all of these examples that traditional cultural beliefs may have some bearing on the prevalence of tobacco use. Such cultural factors must be taken into account in health promotion messages and other tobacco interventions, especially with traditional Indigenous people.

3.4.2 Enjoyment and addiction

Despite the differences between Indigenous people and members of other populations who use tobacco, it is also likely that they share similar reasons for smoking.

Enjoyment is one of the most common reasons smokers cite for smoking. In the 1991 survey of Americans (Pederson et al., 1996), in which smokers were asked why they smoked, 79% said they smoked because they enjoyed it.

In their survey of Indigenous people in the Northern Territory, Watson, Fleming and Alexander (1988, 46-9) asked people why they smoked. Most people said they smoked because they liked the taste or feeling of smoking; some men said that they would rather smoke than eat.

In the 1991 survey of Americans, in which smokers were asked why they smoked (Pederson et al., 1996), 82% said they smoked out of habit and 73% said they smoked because of craving or addiction. The only documentation of addiction to tobacco among Indigenous Australians is in Watson, Fleming and Alexander's survey (1988), where habit, addiction to tobacco, or wanting to prevent withdrawal symptoms were important reasons for smoking.

3.4.3 Social contexts and pressures

Smoking is a highly adaptive and social behaviour. Smoking is often perceived to have a strong social benefit; it is about sharing and belonging. Using tobacco reinforces family relationships and friendships. Non-participation may lead to people feeling isolated and alienated from the group. This is likely to be so across the population as a whole.

However, tobacco use may play a role in ensuring social cohesion among Indigenous Australians to a larger extent than it does in mainstream society.

Sharing a cigarette has also become one of the ways in which indigenous people have been able to reaffirm, strengthen and maintain their cultural identity in an environment that is often hostile and constantly changing (Roche & Ober, 1997).

In the evaluation of the 1997–1998 National Tobacco Campaign (NTC), tobacco use was considered the norm among Indigenous people. Sharing cigarettes was seen as an important part of friendship and being part of a community. The role of sharing was seen to make quitting more difficult (NTC 1999, 241).

It may be more difficult to abstain from using tobacco if surrounded by smokers. Many Indigenous people live in large households where many of the household members are smokers. In the NTC evaluation (1999, 241) many Indigenous people stated that parents, grandparents and community elders who smoked had been role models and that this had influenced the uptake of smoking. Young people reported being supplied with tobacco by their parents, who appeared to expect that their children would smoke. Parents reported feeling unable to prevent their children from smoking if they themselves were smokers.

Again, there are implications here for health promotion and other tobacco interventions, with the potential for the promotion of identification with non-smoking role models.

Many Indigenous people smoke because they are bored (AMA & APMA, 2000; Watson et al., 1988). In Gilchrist's survey (1998), Indigenous smokers were more likely than non-smokers to believe that 'smoking relieves boredom': 68% of smokers agreed with the statement, compared to 43% of non-smokers.

In a series of interviews with Indigenous ex-smokers, one participant discussed the role of boredom in encouraging smoking:

If you look at the communities, when school is over they go out and play cards and have a smoke and drink. There's nothing else much to do (Danila Dilba Medical Service, 1999, 19).

Many more Indigenous people are unemployed compared to those in the general population (AIHW 2000b, 215). This is also likely to contribute to boredom and stress.

Many smokers state that smoking relaxes them. In a 1991 survey of Americans aged 18 years and over, 72% smoked because it made them feel relaxed (Pederson et al., 1996). The stress-reducing function of smoking is also seen as important in Indigenous communities. High levels of stress, anxiety and depression are common in Indigenous communities due to low socioeconomic status, high mortality rates and a history of acculturation and dispossession. Alternative strategies for dealing with stress may need to be considered as part of smoking cessation programs (Roche & Ober, 1997).

In Gilchrist's survey (1998), Indigenous smokers were more likely than non-smokers to believe that 'smoking calms the nerves': 86% of smokers agreed with the statement, compared to 33% of non-smokers.

In other populations, smokers may start smoking, or continue smoking, in an attempt to lose weight or maintain their current weight. In the 1991 survey of Americans, 25% said that one of the reasons they smoked was to control their weight (Pederson et al., 1996).

It is possible that some Indigenous Australians also use tobacco to enhance weight loss. In Gilchrist's survey, (1998) Indigenous smokers were more likely than non-smokers to believe that 'smoking keeps you thin'; 34% of smokers agreed with the statement, compared to 27% of non-smokers.

One clear implication from these observations of smoking in its social context is that intervention and cessation programs need to take into account a whole range of motivations, perceptions and situational variables. The problem of smoking cannot be isolated from its social context.

3.4.4 Early uptake of smoking

Many studies show that taking up smoking earlier is related to a lesser chance of cessation (Hymowitz et al., 1997). Indigenous children and adolescents take up smoking earlier than non-Indigenous children and adolescents (AIHW 1996; Gray et al., 1997; Johnston et al., 1997; Kamien, 1976; Markey, 1996; Watson et al., 1988, 70-1; Watson et al., 1986). Taking up smoking early means that addiction to nicotine is established in adolescence. These findings indicate a need for intervention programs targeting children and adolescents.

3.4.5 Cost of smoking

The cost of smoking does not appear to deter Indigenous people from using tobacco. Some Indigenous people appear to spend a greater proportion of their income on tobacco products than other Australians. An ABS survey in Darwin in 1994 showed that residents spent 2% of their average weekly household expenditure on tobacco (Richards & McComb, 1994, 9). By comparison, in an analysis of items sold through Arnhemland Progress Association shops in Northern Australia in 1989-1990, cigarettes and tobacco products accounted for 15% of all sales (McMillan, 1991).

In his study of the economy of a remote outstation between Maningrida and Oenpelli in Western Arnhem Land, Altman (1987) assessed the exchange of traditional hunting items and labour for items in the cash economy. On average, 12% of cash was spent on tobacco products. Expenditure on foodstuff and tobacco was stable compared to expenditure on other goods.

In Hoy's survey (1997) of items sold through a community store, restaurant and club in a remote Indigenous community in a one month period, cigarettes constituted 22% of all money spent, beer constituted 29% of money spent, other non-food items 4% and food 45%. Gambling through card games also meant that money changed hands. Diversion of money from food to gambling, alcohol and tobacco may have a significant effect on the nutrition of Indigenous people.

In remote areas, prices of tobacco products may be high because of freight costs. Indigenous people are more likely than the general population to be on limited budgets, especially if they are on pensions or unemployment benefits (McLennan & Madden, 1997), and thus tobacco purchases may make up a greater part of their expenditure compared to that of the general population.

In a series of interviews with Indigenous ex-smokers in Darwin, a few mentioned that the cost of tobacco products had encouraged them to quit (Danila Dilba Medical Service, 1999). However, in the AMA report on smoking among Indigenous people, while young people commented that cost was a disincentive to smoking, it was not a disincentive for older people, despite many having said that they were not always able to afford cigarettes. Smokers with dependent children said that they would not spend their last available money on cigarettes (AMA & APMA 2000, 9).

3.4.6 Health priorities

Indigenous people have generally not identified tobacco as a health issue that should be given priority. The effects of tobacco use are 'invisible' and chronic; they are not obvious. When asked to identify the most important health issue in their community, Indigenous people frequently identify alcohol as a major health problem, as it has acute and tangible detrimental effects such as violence, aggression and disruption of family activities. Other priorities may include housing and infrastructure improvements, dog programs and nutrition programs.

In a survey of Indigenous people living in the Kimberley Region in Western Australia, people were asked to identify health problems in their community. The most frequent response was alcohol. Other health risks that were identified included too much fatty food and too much sugar (80%), gambling (72%), too much rubbish lying around (60%), bad hygiene in families (60%), crowded housing (50%), lack of access to a washing machine (30%) or refrigerator (25%), diseased dogs (26%), leaking drains or taps (20%), and dust (10%). Only 16% of people felt that smoking was a health problem. When people were asked what prevention measures for health problems they and their community should undertake, almost half mentioned environmental solutions including cleaning up the house, cleaning the toilet, cleaning up rubbish and cleaning drains. They also mentioned more and better housing, and better plumbing and drainage.

In the National Drug Strategy (NDS) Household Survey in 1994, 66% of Indigenous people identified alcohol as a major health problem in their community, while only 3% nominated tobacco (AIHW 1996).

Similarly, in the evaluation of the 1997-1998 NTC, participants identified other drugs as more of a concern because of their association with more acute and complex issues, including health, financial and legal complications (NTC 1999, 238). The authors of the evaluation conclude that the low priority placed upon tobacco issues is a major barrier to the success of quit strategies. Community health workers reinforced the low priority given to tobacco as a health issue, a response which is partly linked to the high prevalence of tobacco use among this group.

Participants who contributed to the report on Indigenous smoking by the AMA also commented that alcohol was more of a priority than tobacco; however, young people interviewed said that they viewed tobacco use as more risky than eating incorrectly or not exercising (AMA & APMA 2000, 9). One participant discussed the role of the community in prioritising health issues:

If the community says smoking is not a problem at the moment because we need running water, a house and clothes for our children, you have to accept that (AMA & APMA 2000, 44).

More recently, many Indigenous organisations and health organisations have prioritised tobacco because of its role as a major influence on Indigenous health. (See Appendix 2). However in the studies surveyed above, it is clear that tobacco use is not ranked highly as a health risk by Indigenous people. Intervention strategies will need to combat such perceptions.

3.4.7 Targeted Advertising

There is anecdotal evidence of advertising campaigns that have been targeted at Indigenous people. Promotion of certain cigarette brands in remote communities, with the distribution of promotional products such as T-shirts, is an example of this. Markey (1996) reported that free Marlboro T-shirts were being given out with every pack of Marlboro cigarettes in a remote Indigenous community. As a considerable number of Indigenous men and women were for many years involved in the cattle industry in Northern Australia – work which conferred prestige and self-esteem – it is likely that the image of the rugged cowboy promoted within Marlboro advertising was quite powerful (Roche & Ober, 1997).

Indigenous tobacco use is characterised by brand loyalty. In Markey's study of Indigenous footballers (1996), 92% of Indigenous smokers and 13% of non-Indigenous smokers smoked Winfield cigarettes. He claimed that the reason Winfields sold so well in Indigenous communities could possibly be explained by the marketing campaign 'Anyhow...have a Winfield', which implied a recent loss or defeat, and probably targeted blue-collar workers and those who were infrequent 'winners'.

In her paper on colonialism and health, Flick (1998) comments that a tobacco company gave a sales award to a distributor in a remote community in the Northern Territory for having the highest per capita sales for a particular branch anywhere in the world.

Tobacco companies have also targeted Indigenous populations of the nations of the South Pacific, including Papua New Guinea. Marshall (1991) documented the aggressive marketing tactics utilised to promote tobacco use in this region through the use of extensive advertising campaigns, promotion of sporting events, and 'giveaway' schemes.

3.4.8 Access to medical services and resources

Even when health services are available, there is evidence that the health care needs of Indigenous Australians have not been adequately met (Deeble et al., 1998, 65). There may be barriers which inhibit access to services, including language barriers, racism and a lack of Indigenous involvement in the delivery of health services (NHMRC 1996c, 5-8). Lack of access to curative medical services may have resulted in higher mortality as a result of tobacco-related disease.

In addition, health staff working with Indigenous communities may not have the time or resources

to conduct interventions to reduce tobacco use; they may not be trained in conducting such interventions; or they may not feel confident in promoting the cessation of tobacco use. The authors of the evaluation of the response by Indigenous Victorians to the National Tobacco Campaign concluded that community health workers working with Indigenous communities lacked knowledge, skills and local resources to assist Indigenous people in quitting (NTC 1999, 238).

Little is known of Indigenous people's perceptions of mainstream health promotion material. However, it is probable that many health promotion resources that look at the effects of tobacco may not be accessible or appropriate for Indigenous people.

A review of available health promotion resources around Australia conducted as part of this report showed that few of the available promotional materials for quitting smoking targeted Indigenous Australians. The author of this review sent letters to 31 major organisations likely to be involved in tobacco control activities for Indigenous people. Thirty-six different health promotion resources were identified. None were available in Indigenous languages, although one incorporated an Indigenous phrase in a song featured in the accompanying video. It is not known if these resources are available and accessible to Indigenous people. Evaluation of the accessibility of existing promotional materials would seem therefore to be an important component of intervention programs.

Table10 Source of health promotion materials about tobacco Indigenous people

Type of resource	Aboriginal health organisations	Government departments	Non-government institutions	Total
Poster	1	10	3	14
Pamphlets and booklets	2	9	1	12
Videos	1	1	2	4
Other (flip charts, T-shirts, stickers, feltboard, CD-ROM)	1	4	0	5
Training manual	1	0	0	1
Total	6	24	6	36

3.5 Summary

There are a number of similarities between Indigenous and other Australians' reasons for using tobacco. However there are also some important differences which can be explained by historical, social, cultural and economic factors which have resulted in different Indigenous lifestyles, needs, vulnerabilities and priorities.

These include:

- *Colonisation and dispossession.* The colonisation of Australia led to disruption of culture and the creation of unhealthy living and social conditions. Dispossession and institutionalisation, and the resultant separation and loss have led to a higher level of risk-taking behaviour among Indigenous people, including tobacco use.
- *Socioeconomic inequity.* Low rates of education, high rates of unemployment and poor housing are linked with higher rates of tobacco use.
- *Lack of knowledge about harmful effects.* Some (but not all) Indigenous people know less about the harmful effects of tobacco than others. Some studies of Indigenous people have shown very low levels of awareness of the medical problems caused by smoking. Similarly smoking is not widely perceived to be a cause of most drug-related deaths.
- *Cultural beliefs.* Among some Indigenous people, tobacco may have been, and continues to be, linked with traditional cultural practices and beliefs.
- *Social contexts and pressures.* Sharing tobacco plays a large part in the social life of many Indigenous people, and using tobacco reinforces family relationships and friendships. People who don't use tobacco may end up feeling isolated and alienated from the community.
- *Early uptake of smoking.* Indigenous children and adolescents take up smoking earlier than non-Indigenous young people. Addiction to nicotine is therefore more likely to

be established by adolescence.

- *Health priorities.* Indigenous people have often prioritised other health issues above tobacco use – for example, alcohol use (which, unlike tobacco, has acute disruptive effects), housing and infrastructure improvements, dog programs and nutrition programs.
- *Targeted Advertising.* There is evidence that some tobacco advertising campaigns have been targeted at Indigenous people.
- *Less access to medical services and resources.* Indigenous people may have poorer access to health services than other Australians. Even where health services are available, there may be barriers to access, including language barriers, racism and lack of Indigenous involvement in the delivery of health services. Few health promotion resources about tobacco are targeted at Indigenous people.

However there are also some factors which influence smoking behaviour, such as enjoyment, which are similar across the whole Australian population. As with other smokers, some Indigenous people are aware that they are addicted to tobacco. The cost of smoking does not appear to influence their decision to continue smoking.

Nonetheless, the context for delivery of tobacco programs differs significantly from that in the general population because of differences in the history, socioeconomic status and culture of Indigenous people. Many of these factors may make it more difficult for Indigenous people to quit and may require specific targeted strategies which take on board specific histories, needs and socio-cultural contexts.



4. The health effects of tobacco use by Indigenous people

This chapter documents the evidence for the morbidity and premature mortality attributable to tobacco use by Indigenous Australians. In documenting this evidence it examines a number of specific medical conditions which have a high prevalence among Indigenous people and which may be attributable to tobacco use. It suggests that the high prevalence of smoking among Indigenous people is likely to contribute to life expectancy being 15-20 years less than that of other Australians. There is also a higher level of hospitalisation for conditions attributed to tobacco use, especially for respiratory disease, which is the main cause of hospitalisation for Indigenous people.

4.1 The Australian Indigenous population

The ABS estimated that, based on the 1996 Census, there are 372 052 Indigenous people in Australia, constituting 2% of the population (ABS 1997c, 6). The Indigenous population is relatively young when compared with the total Australian population; the median age of Indigenous Australians at the 1996 Census was 20 years, compared with 33 years for the total Australian population (ABS 1997c, 6).

Information on Indigenous status may be unreliably collected in some states, but is likely to be reliable in South Australia, Western Australia and the Northern Territory (AIHW 2000b, 208).

There is an abundance of information documenting the burden of morbidity and premature mortality experienced by Indigenous Australians.

4.2 Tobacco use, life expectancy and mortality

Life expectancy

Regular tobacco use is likely to reduce life expectancy by 6.5 years in males and 5.1 years in females (Taylor, 1993).

Indigenous Australians have a lower life expectancy than non-Indigenous Australians. In 1992-1994 Indigenous people had a life expectancy that was 15-20 years less than that of the general population in Western Australia, South Australia and the Northern Territory (75.0 years for males born in 1994 and 80.9 years for females) (McLennan & Madden, 1997, 1).

Arnold-Reed, Holman, Codde and Unwin (1998) calculated the gain in life expectancy that would be expected in Indigenous people if additional alcohol and tobacco-related deaths were eliminated. If tobacco-related deaths were eliminated, life expectancy for men would increase from 58.5 years to 61 years, and for women would increase from 65.3 years to 67 years. By comparison, elimination of deaths from infectious disease would add only 0.2 years to the life expectancy of Indigenous people.

Indigenous people die younger from tobacco-related illness than non-Indigenous people. Forty-nine per cent of Indigenous males and 48% of Indigenous females in Western Australia, whose deaths were related to using tobacco, were aged 55 years or under, compared to 11% of non-Indigenous males and 10% of non-Indigenous females (Unwin, Thomson, & Gracey, 1994).

Mortality

Tobacco use was responsible for 15% of deaths from all causes in Australia in 1992 (English et al., 1995, 478-85).

Indigenous people experience two to eight times the death rate of non-Indigenous people across all age groups, with the highest disparity being in the age bracket 32–34 years (Bhatia & Anderson, 1995). In the period 1992–1994, age standardised death rates for Indigenous males were 3.5 times higher than for non-Indigenous males, and were 4 times higher for Indigenous females than for non-Indigenous females (Anderson, Bhatia, & Cunningham, 1996).

Data on mortality and morbidity in the general Australian population may act as a guide for estimating the number of deaths due to the use of tobacco among Indigenous Australians. However attributing morbidity and mortality among Indigenous people to tobacco use, by using such techniques as aetiological fractions, may not be reliable due to a number of factors. These factors include a higher proportion of Indigenous people who smoke (resulting in underestimation of morbidity and mortality) (Unwin et al., 1994); the presence of other risk factors (poverty, remoteness, childhood malnutrition, lack of access to health services) (Cunningham, 1995); and the fact that these techniques have not been validated for Indigenous populations.

The percentage of deaths attributable to tobacco use among Indigenous people is likely to be similar to that in the mainstream population. Between 1986 and 1995 19% of non-Indigenous deaths in the Northern Territory were attributable to smoking, compared to 23% of deaths among Indigenous men and 17% among Indigenous women (Measey, d'Espaignet, & Cunningham, 1998, 16). There was a much higher rate of deaths attributable to smoking in the Top End compared to Central Australia; 26% of deaths of Indigenous women in the Top End were attributable to tobacco, compared to 1% in Central Australia (Measey et al., 1998,16-7). This could be explained by the higher prevalence of tobacco use in the Top End.

Between 1991 and 1992 tobacco smoking was responsible for 15% of all deaths and 14% of Indigenous deaths in Western Australia (Unwin et al., 1994).

4.3 Morbidity and smoking

Tobacco was responsible for 3% of hospital episodes for all causes in Australia in 1992 (English et al., 1995, 478-85).

Indigenous people may be more likely than others to be admitted to hospital for a tobacco related cause. Between 1986 and 1988 3% of hospital admissions of Indigenous adults in the Northern Territory were due to tobacco, compared to 1% of those for non-Indigenous adults (Measey et al., 1998, 21-2). The proportion of hospital admissions attributable to tobacco use among men was greater than for women, and among Indigenous people was higher in the Top End (4%) than in Central Australia (1%) (Measey et al., 1998, 22).

Indigenous people are hospitalised at two to three times the rate of people in the general Australian population, with respiratory disease and injury being the most common causes of hospitalisation for adults (McLennan & Madden, 1997, 1). In a review of hospitalisation of Indigenous people in Western Australia, Indigenous males were admitted at 2.6 times the rate of non-Indigenous males, and Indigenous females were admitted at 4.7 times the rate of non-Indigenous females. Of those people admitted for tobacco-related illness, Indigenous people are younger than non-Indigenous people (Unwin et al., 1994).

Indigenous smokers may also be more likely than Indigenous non-smokers to suffer from ill health. In Hogg's survey in rural New South Wales, Indigenous smokers were less likely than Indigenous non-smokers to report excellent or very good health. Only 33% of current smokers reported excellent or very good health compared to 51% of non-smokers (Hogg, 1994).

4.4 Smoking and specific medical conditions

Tobacco use results in an increased risk of a range of diseases, many of which have a higher prevalence among Indigenous people.

4.1.1 Respiratory disease

Lung cancer

Smoking causes lung cancer (Doll & Bradford Hill, 1950; Wynder & Graham, 1950). In the general population smoking results in a relative risk of developing lung cancer of 13.0 for men and 11.4 for women (English et al., 1995).

Respiratory diseases contribute to many Indigenous deaths and are one of the most important causes of excess death (observed deaths minus expected deaths) for Indigenous people (Cunningham & Condon, 1996). Nationally, lung cancer caused 10% of all deaths in Indigenous males, and 13% of deaths in Indigenous females (Anderson et al., 1996). Indigenous men were up to 2.2 times more likely to die of lung cancer and Indigenous women were up to 3.1 times more likely to die of lung cancer than other Australians (Dempsey & Condon, 1999) (See Appendix 1).

However the proportion of lung cancer deaths attributable to tobacco is similar for Indigenous people and non-Indigenous people. In Queensland in 1992-1995, 81% of lung cancer deaths in Indigenous people in remote communities were attributable to tobacco, compared to 79% of lung cancer deaths for the whole of Queensland for the period 1992-1996 (Health Information Centre, 2000).

Indigenous people may, however, be relatively less likely to be hospitalised for cancer of the lung, trachea and bronchus, but more likely to die from these cancers (Plant, Condon, & Durling, 1995b, 69). They present later with lung cancer than non-Indigenous people (Bateson, 1985) and their disease progression is often exacerbated by concurrent inflammatory lung disease.

Despite this, the proportion of hospitalisations for lung cancer attributable to tobacco is likely to be similar for Indigenous and non-Indigenous people. In the period 1995-1997, 81% of hospital admissions for lung cancer in Indigenous Queenslanders were attributable to tobacco, compared to 79% among all Queenslanders (Health Information Centre, 2000).

Chronic obstructive airways disease (COAD)

Smoking results in a relative risk of developing chronic obstructive airways disease (COAD) of 9.8 (English et al., 1995).

Indigenous men were up to 4.6 times more likely to die of COAD and Indigenous women were up to 10.7 times more likely to die of COAD than other Australians (Anderson et al., 1996; Dempsey & Condon, 1999) (see Appendix 1).

The proportion of deaths from chronic obstructive lung disease attributable to tobacco may be similar for Indigenous people and non-Indigenous people. In Queensland in 1992-1995, 75% of deaths due to chronic obstructive lung disease in Indigenous people in remote communities were attributable to tobacco, a figure identical to that for the whole of Queensland for the period 1992-1996 (Health Information Centre, 2000).

There may be other factors that contribute to the high rate of lung disease among Indigenous people. In several studies Indigenous people have been recorded as having a lower lung capacity than Caucasian people. Watson found that the mean forced vital capacity of non-Indigenous children was 20% greater than that of Indigenous children of the same age, height and gender (Watson et al., 1986). Thompson (1992) and Veale (1997) also found that Indigenous people had reduced lung function in comparison to Caucasians. The difference in lung function may have been because of the smaller ratio of sitting to standing height in Indigenous people; however, even when the results were standardised by using sitting height rather than standing height, differences remained. It is important to stress that this difference in lung function could also be attributable to other factors – maternal smoking, low birthweight, infant malnutrition, and recurrent respiratory tract infections may have compromised lung growth in Indigenous children (Thompson, 1997) as well as the effects of dust and smoke from fires.

Thompson (1992) and Veale (1997) found, surprisingly, that age-related decrease in lung function was less in smokers than in non-smokers, ie. that smokers had greater lung capacity. This increased lung function demonstrated in smokers was attributed to 'the healthy smoker effect' - people who have no respiratory symptoms may be more likely to smoke than people who have respiratory symptoms. Alternatively, smokers may have been more likely to be unwell and thus be excluded from the studies due to symptoms of respiratory disease. However, in another study of respiratory function in Indigenous people, smoking was associated with lower levels of lung function (Bremner et al., 1998).

Indigenous people are also more likely than non-Indigenous people to be admitted for COAD (Plant et al., 1995b, 133). However, Indigenous and non-Indigenous Queenslanders have a similar proportion of hospitalisations for COAD attributable to tobacco use. In 1995/96 to 1996/97, 70% of admissions of Indigenous people from remote communities for COAD in Queensland were attributable to tobacco, compared with 74% of admissions for all Queenslanders (Health Information Centre, 2000).

Pneumonia, bronchiectasis, tuberculosis and chronic bronchitis

Smoking results in a relative risk of developing pneumonia of 1.5 (English et al., 1995).

Indigenous men were up to 19.2 times more likely to die of pneumonia, and Indigenous women were up to 15.1 times more likely to die of pneumonia than other Australians. Indigenous men were up to 4 times and Indigenous women were up to 4.5 times more likely to die of asthma than other Australians (Anderson et al., 1996; Dempsey & Condon, 1999). (See Appendix 1).

Respiratory disease is also the main cause of hospitalisation among Indigenous people. Indigenous people are much more likely to be hospitalised for respiratory disease than non-Indigenous people. Indigenous people may be up to 40.8 times more likely to be hospitalised for pneumonia than non-Indigenous people (Williams, Gracey, & Smith, 1997). (See Appendix 1).

Smoking may also be linked to lung pathology that does not require hospitalisation. Respiratory diseases are also the most likely illnesses to be reported by Indigenous people up to the age of 45 years in the community (ABS 1996) and smoking is associated with an increase in respiratory symptoms (Hoy et al., 1997; Torzillo, Waterford, Hollows, & Jones, 1983).

Tobacco use is thought to be an independent risk factor for tuberculosis; however, in the general Australian population, where the incidence of tuberculosis is now low, it is difficult to calculate what proportion can be attributed to smoking (English et al., 1995, 276). Indigenous people suffer from higher rates of tuberculosis than the general population, but little is known about how risk factors such as smoking contribute to its prevalence (Plant, Krause, Condon, & Kerr, 1995a).

4.4.2 Cardiovascular disease

Smoking results in a relative risk of developing atherosclerosis of 2.5, ischaemic heart disease of 3.1 and stroke of 3.1 for people under the age of 65 (English et al., 1995).

Cardiovascular disease is the main cause of death among Indigenous people, accounting for 27% of deaths of Indigenous males and 30% of deaths of Indigenous females (Anderson et al., 1996), mainly due to ischaemic heart disease and stroke, but hypertensive disease and rheumatic heart disease also contribute. Cardiovascular disease is also one of the main causes of excess mortality among Indigenous people (Cunningham & Condon, 1996). The proportion of deaths from cardiovascular disease that is attributable to tobacco use may be higher for Indigenous people than for non-Indigenous people. In Queensland in 1992–1995, 35% of ischaemic heart disease deaths in Indigenous people from remote communities were attributable to tobacco, compared to 14% of ischaemic heart disease deaths for the whole of Queensland for the period 1992–1996 (Health Information Centre, 2000).

Indigenous Australians also have a higher incidence of hospitalisation for cardiovascular disease than non-Indigenous Australians. Hospitalisation rates for cardiovascular disease for Indigenous men are 1.7 times higher than those for non-Indigenous men, and 2.1 times higher for Indigenous women than for non-Indigenous women (Bhatia & Anderson, 1995).

Ischaemic heart disease

Indigenous men have up to 3.2 times the risk of ischaemic heart disease and Indigenous women have up to 6.8 times the risk as other Australians (Unwin et al., 1994) (See Appendix 1). In some jurisdictions, death rates among Indigenous women have recently increased (Cunningham & Condon, 1996).

The incidence of sudden death in Indigenous people may be higher than that in the general population. In the Northern Territory the incidence of sudden death among Indigenous people is 7.5 times that in the non-Indigenous population. Coronary atherosclerosis was the cause of death in 37% of Indigenous sudden deaths, which was lower than that for the non-Indigenous population; many of the Indigenous sudden deaths were attributed to diseases other than cardiac diseases, such as undiagnosed lung disease, pulmonary embolus, and central nervous system disease (Weeramanthri, Powers, & Collier, 1996).

In a review of 8 sudden deaths among young Indigenous sportsmen in the Northern Territory, many were found to be due to ischaemic heart disease; 6 out of 8 of the players who died had coronary abnormalities that were typical of middle aged victims of cardiac death (Young, Fricker, Thomson, & Lee, 1999). Most had risk factors for cardiovascular disease.

Hospitalisation rates for ischaemic heart disease among Indigenous people may be lower for Indigenous people than for non-Indigenous people, despite the death rates being much higher (Plant et al., 1995b, 116-7) (see Appendix 1). However, Indigenous people may be more likely than non-Indigenous people to be hospitalised for ischaemic heart disease that could be attributed to tobacco. In 1995–1997, 38% of admissions in Queensland of people from Indigenous communities for ischaemic heart disease were attributable to tobacco, compared to 24% of admissions for all Queenslanders (Health Information Centre, 2000).

Cerebrovascular disease

Indigenous men have up to 3.6 times the risk of cerebrovascular and Indigenous women have up to 3.7 times the risk as the general population (Anderson et al., 1996) but may have a lower chance of admission for cerebrovascular disease than for the general population (Armstrong, 1979) (See Appendix 1).

Other cardiovascular disorders

Tobacco use is linked to hypertension (United States Surgeon General, 1983, 97), which is more prevalent in Indigenous populations than in non-Indigenous populations (Bastian, 1979; Hoy et al., 1997). Indigenous people may be more likely than others to be hospitalised for hypertension. In 1979–1991 Indigenous people were more than twice as likely to be hospitalised for hypertension in the Northern Territory (Plant et al., 1995b).

Tobacco use is related to peripheral vascular disease; 90% of people with peripheral vascular disease are smokers (Winstanley, Woodward, & Walker, 1995, 40). There is no published data on the prevalence of peripheral vascular disease among Indigenous people.

Smokers have up to five times greater risk of aortic aneurysm than non-smokers (United States Surgeon General, 1990). There is no published data on the prevalence of aortic aneurysm among Indigenous people.

4.4.3 Cervical cancer

Smoking increases the risk of cervical cancer after adjusting for age, educational level and sexual activity. Being a current smoker results in a risk ratio of 3.4 (Slattery et al., 1989).

Indigenous women experience higher rates of cancer of the cervix. In the Northern Territory in 1991–1995, the mortality rate for cervical cancer among Indigenous women was 13.3 times higher than for other Australian women (Dempsey & Condon, 1999). Hospitalisation rates in the Northern Territory for cervical cancer for the years 1979–1991 were up to 6 times higher for Indigenous women than for non-Indigenous women (Plant et al., 1995b).

4.4.4 Other cancers

Tobacco use is linked to many other cancers. Smoking is linked to cancer of the oral cavity, oesophagus and larynx, vulva, anus, bladder, kidney and pancreas (English et al., 1995, 306). People who chew tobacco have a higher risk of developing oral cancer.

Indigenous people frequently have higher mortality rates due to cancer. For example, in the Northern Territory in 1991–1995, Indigenous males had a 1.6 times higher risk of cancer and Indigenous females had a 1.8 times higher risk than the general population (Dempsey & Condon, 1999, 50-1).

4.4.5 Diabetes and renal disease

Diabetics have a high risk of tobacco-related illness. Diabetic smokers may have up to three times the risk of coronary vascular disease that non-smokers. Diabetic ex-smokers also have an increased risk of coronary vascular disease (Rosengren, Welin, Tsipogianni, & Wilhelmsen, 1989).

Guest's survey of smoking prevalence in Indigenous people living in rural Victoria found that Indigenous diabetics also had a high prevalence of smoking in comparison to non-diabetic Indigenous people (Guest et al., 1992).

4.4.6 Peptic ulcers

Smoking results in a relative risk of developing peptic ulcer of 2.1 (English et al., 1995). There is little data on the prevalence of peptic ulcer disease in Indigenous people. Bateson (1976) suggested that Indigenous people may experience less duodenal disease than the general population.

4.4.7 Injury

Smoking increases the risk of dying as a result of fire, primarily through fires started from lit cigarettes (English et al., 1995, 478-9). Many Indigenous people use open fires for cooking and for heat, and burns may result from these as well as from tobacco-related fires. In the Northern Territory in 1979–1991 Indigenous people had a much higher chance of dying as a result of fire and flames, and had much higher rates of hospitalisation for burns than non-Indigenous people (Plant et al., 1995b).

4.4.8 Vision

Smokers of 20 or more cigarettes a day have up to three times the risk of developing cataracts than non-smokers or former light smokers (Christen et al., 1992).

Indigenous people have high rates of cataract development, although this may be multifactorial: dust and exposure to sunlight are also likely to contribute to cataract formation. The National Trachoma and Eye Health Programme, in a survey of 5134 Indigenous adults, found that the prevalence of binocular blindness was 1%. It found that in those over the age of 60 years, 22% of males and 18% of females were binocularly blind, and 26% of males and 19% of females were monocularly blind. Half of the blindness was caused by cataracts (Taylor, 1980). It is possible that at least some of this blindness could be attributable to tobacco use.

4.4.9 Low birthweight

Tobacco use contributes to increased rates of low birthweight, increased incidence of spontaneous abortion, prematurity, stillbirth, sudden infant death syndrome (Chollat-Traquet, 1996; United States Surgeon General, 1990) and a higher risk of ectopic pregnancy (English et al., 1995, 479). Infants of smokers weigh on average 200g less than the infants of non-smokers; smokers have double the risk of having a low birthweight infant (United States Surgeon General, 1990).

Indigenous women may be more likely to smoke during pregnancy than non-Indigenous women. In a New South Wales study following women through their antenatal care and the birth of their infants, 66% of Indigenous women smoked, compared to 16% of non-Indigenous women (de Costa & Child, 1996). In a study by Sayers of Indigenous mothers and their infants in the Northern

Territory (1997), 54% of mothers smoked. In a survey of Indigenous mothers in Western Australia, 65% of women smoked during their pregnancy and 66% of their partners were smokers (Eades & Read, 1999).

Babies born of Indigenous mothers are thus at higher risk of low birthweight and higher perinatal mortality rates. In the period 1979–1991 in the Northern Territory perinatal mortality rates were 2–3 times higher for Indigenous infants than for non-Indigenous infants (Plant et al., 1995b).

Sayers (1997) assessed the birthweights of 503 liveborn singleton infants born at the Royal Darwin Hospital between 1987 and 1990. A smoking mother was a major risk factor for low birthweight and growth retardation. Smoking more than half a packet per day of cigarettes resulted in an odds ratio of 2.8 for delivering a low birthweight infant and an odds ratio of 1.8 for intrauterine growth retardation. Smoking was not significantly related to preterm birth; and smoking less than half a packet a day was not significantly related to higher risk.

Infants born of Indigenous smokers at an urban hospital in NSW were at higher risk of low birthweight and displayed higher perinatal mortality rates. However, this sample may have been biased, in that the hospital in which the study was based is a teaching hospital to which women at high risk of preterm delivery may be transferred (de Costa & Child, 1996).

In a two year follow-up of a cohort of 48 Indigenous infants in Western Australia, infants of mothers who smoked were 540g lighter and 0.6 cm shorter (49.3+/-3.5cm) than those whose mothers did not smoke (Gracey, Sullivan, Burke, & Gracey, 1992).

However, other factors including poor maternal nutrition, higher rates of urinary tract infections, pregnancy induced hypertension, poor antenatal care, and high parity may also contribute to low birthweight and increased rates of prematurity in Indigenous infants (de Costa & Child, 1996; Gracey et al., 1992; Sayers & Powers, 1997).

4.4.10 Infertility

Women smokers have decreased fertility, with smokers having 72% of the fertility of non-smokers. And smokers are 3.4 times more likely to take more than a year to conceive than non-smokers (Baird & Wilcox, 1985). Women smokers who are in in-vitro fertilisation and embryo transfer and gamete intrafallopian transfer programs had a pregnancy rate of less than half that of non-smokers and had greater chance of miscarriage when they fell pregnant (Harrison, Breen, & Hennessy, 1990).

Little is known of the prevalence of infertility in Indigenous women; however, infertility rates appear to be higher than in the general population, due to a range of reasons. In a retrospective study of infertility among Indigenous women in a remote community in the Northern Territory, (Kildea, 1997, 93-5) 26% were infertile, a higher rate than in the general population (about 15%). Seventy-six per cent of this population of women were smokers and a higher prevalence of smoking was found in the infertile groups, although it did not reach statistical significance. Eighty-five per cent of women with primary infertility were smokers and 81% of women with secondary infertility were smokers.

Men who smoke may have decreased sperm density (Vine, Margolin, Morrison, & Hulka, 1994), increased abnormal sperm morphology, and impotence. Little is known of infertility rates among Indigenous men.

4.4.11 Occupational health and smoking

Smokers who are exposed to asbestos have more than 50 times the risk of cancer as non-smokers who do not work with asbestos (United States Surgeon General, 1985, 218). Tobacco use may also contribute to higher rates of lung cancer in Indigenous people who are occupationally exposed to asbestos. The prevalence of mesothelioma in Indigenous people in the Pilbara is one of the highest of any population in the world (Musk, de Klerk, Eccles, Hansen, & Shilkin, 1995). Most of the people who suffered from mesothelioma had been exposed to asbestos at or around an asbestos mine at Wittenoom. Smoking prevalence in this population was not known.

4.4.12 Effects of environmental (passive) smoke

Environmental tobacco smoke affects the health of children (NHMRC 1986) and many Australian children are exposed to passive smoke. A survey in Western Australia in 1993 found that 32% of children aged 4–16 years lived in households where they were exposed to passive smoke (Winstanley et al., 1995, 82).

Because of the high prevalence of smoking and other factors such as overcrowding among Indigenous people, it is likely that many of them, including children, are exposed to environmental tobacco smoke. In Johnston's study of Indigenous school children living in remote communities (1997), 98% lived in a house with at least one smoker and 43% lived in a house with five or more smokers. About 25% had been asked to light a cigarette for an adult in the last week. In a survey of Indigenous adolescents aged 11–17 years in western New South Wales, 87% of respondents said that there was at least one smoker in their household, and 23% had three or more smokers in their household (Andrews et al., 1996b).

Exposure of women to passive smoke in the workplace or from a partner is associated with lower birthweight and many Indigenous women give birth to infants with a low birthweight (Windham, Swan, & Fenster, 1992).

Maternal smoking and exposure to smoke as an infant are two of many risk factors for Sudden Infant Death Syndrome (SIDS) (Schoendorf & Kiely, 1992). Up to 34% of SIDS is related to maternal smoking (English et al., 1995) and Indigenous infants have a higher chance of dying from SIDS. In a Western Australian study, the risk of dying from SIDS was 3.9 times higher for Indigenous infants than for non-Indigenous infants, and 1.4 times higher when risk factors such as preterm birth, low birthweight, small for gestational age babies and young maternal age are taken into account. The authors of the study did not have access to smoking statistics among this population (Alessandri, Read, Burton, & Stanley, 1996).

Meta-analyses of the effect of parental smoking showed that it resulted in up to 1.7 times the risk of otitis media and 1.4 times the risk of middle ear effusion (Strachan & Cook, 1998; Uhari, Mäntysaari, & Niemelä, 1996).

Indigenous children have very high rates of chronic ear disease. A survey by Boswell and Nienhuys (1996) found that otitis media was more than three times as common among Indigenous infants in the first 8 weeks of life (95%) than among non-Indigenous infants (30%). A national survey found that almost 17% of Indigenous children had otitis media, compared to 1% of non-Indigenous children (Thomson, 1984). A survey of 403 Indigenous primary school children in Western Australia showed that 5% had otitis media with effusion, and 37% had a perforation of the ear drum (Watson & Clapin, 1992). The high rate of otitis media among Indigenous children is probably at least partly attributable to exposure to tobacco smoke; however other factors, including a family history of otitis media, low socioeconomic status and crowding may also contribute.

Exposure to environmental smoke results in a higher risk of respiratory disease in infants and children (DiFranza & Lew, 1996). Indigenous infants and children tend to suffer disproportionately from pneumonia and bronchitis. In Western Australia in 1988–1993 infants aged 0–1 years had 10.2 times the risk of being hospitalised with bronchitis and 27.7 times the risk of being hospitalised for pneumonia, compared to non-Indigenous infants (Williams et al., 1997). A study of hospital admissions in Indigenous children in Western Australia found that Indigenous infants were more than 10 times more likely than other infants to be hospitalised for respiratory infections (Gracey & Anderson, 1989).

Exposure to environmental tobacco smoke is also a risk factor for lung cancer and cervical cancer, (Hackshaw, Law, & Wald, 1997; Slattery et al., 1989) and cardiovascular disease (Dobson, Alexander, Heller, & Lloyd, 1991; Law, Morris, & Wald, 1997), all of which have a high prevalence among Indigenous people.

4.5 Summary

The high prevalence of tobacco use among Indigenous people is likely to contribute to life expectancy being 15-20 years less than that of other Australians. Indigenous people experience 2–8 times the death rate of non-Indigenous people across all age groups, but tobacco smoking is likely to contribute to a similar proportion of deaths among Indigenous people as that in the general population (about 15%).

Indigenous people die younger from tobacco-related illness than non-Indigenous people. Forty-nine per cent of Indigenous males and 48% of Indigenous females whose deaths were related to using tobacco were aged 55 years or under, compared to 11% of non-Indigenous males and 10% of non-Indigenous females.

Indigenous people are hospitalised at 2–3 times the rate of people in the general Australian population, with many people being hospitalised for respiratory disease. Indigenous people are more likely to be hospitalised for conditions attributed to tobacco use than other Australians.

Indigenous people suffer from a higher prevalence of many medical disorders compared to non-Indigenous people, much of which is likely to be related to tobacco use. Specifically:

- Indigenous women are up to 3.1 times and Indigenous men up to 2.2 times more likely to die of lung cancer.
- Indigenous women are up to 6.8 times and Indigenous men up to 3.2 times more likely to die from ischaemic heart disease.
- Indigenous women are up to 19.2 times and Indigenous men up to 15.1 times more likely to die from pneumonia.
- Indigenous women are 2.8 times more likely to deliver an infant with a low birthweight, and the perinatal mortality rate is 2–3 times higher for Indigenous infants. Indigenous infants are 3.9 times more likely to die from Sudden Infant Death Syndrome (SIDS).
- Indigenous people are more likely to suffer from blindness, cataracts and deafness.
- Indigenous people are more likely to be exposed to environmental (passive) smoke. Indigenous children are more likely to suffer from ear infections, and are more than 10 times as likely to be hospitalised for respiratory infections.

However, while there is an abundance of data on the prevalence of a range of tobacco-related conditions among Indigenous people, only a few studies have reported on tobacco use among those suffering from the health problem.

The high rate of mortality and morbidity attributable to tobacco use among Indigenous people indicates a definite need for interventions to reduce the prevalence of tobacco use and to reduce exposure to environmental tobacco smoke in this population. The next part of this report examines a range of such interventions.

Part Two
Quitting: *Attitudes and Approaches*

5. Attitudes to quitting

This chapter reviews the literature on people's motives and methods for quitting smoking, their perceptions of their readiness to quit and the kinds of external support they require. Where possible, comparisons are drawn between Indigenous and non-Indigenous populations. Such information may be useful for the planning of cessation programs.

5.1 How do smokers quit?

In a survey of Americans, ex-smokers were asked to report on methods they had used for quitting. 81% just decided to quit, 3% used a cessation clinic, 2% used nicotine gum, 1% visited a hypnotist and 0.1% had used self-help materials (Pederson et al., 1996). In another review of techniques used by non-Indigenous ex-smokers, 90% of successful quitters had used individual methods of quitting rather than organised programs. Stopping smoking 'cold turkey' was more successful than cutting down the number of cigarettes smoked, or changing to a lower tar cigarette (Fiore et al., 1990). Most people who gave up said that they did it of their own accord, regardless of whether they had had contact with information about smoking cessation through the media or through a health professional (Glynn, Boyd, Shopland, & Pechacek, 1990).

A meta-analysis of smokers who quit without help (Baillie, Mattick, & Hall, 1995) assessed 14 samples of smokers who presented at primary care settings and received no smoking cessation intervention or received usual care. Smoking cessation rates varied from 6-11% at 12 months for smokers who received no intervention, and 6-13% for smokers who received usual care.

Few studies have assessed how Indigenous smokers quit. In a series of interviews with Indigenous ex-smokers in Darwin, all had given up 'without help' (Danila Dilba Medical Service, 1999). In a survey of Indigenous adolescents in western New South Wales, 90% of adolescents had tried to quit 'cold turkey'. Nine percent were ex-smokers; all of the ex-smokers had given up 'cold turkey' (Andrews et al., 1996b).

However, people who currently use tobacco may have different views on how they would quit to those who have already quit. In a survey in South Australia in 1987 smokers were asked about their preferences for smoking cessation advice. 24% said they would use a program through their doctor, 13% said they would use a program through another health professional, 7% said they would use a stop-smoking group or a book or pamphlet, 2% said they would attend a lecture and 1% said they would call a quitline. 48% said that they would use none of these (Owen & Davies, 1990). The best way of targeting those who do not want any intervention may be public media campaigns.

There is little information available on how Indigenous smokers think they would quit.

5.2 Why do smokers quit?

In studies in other populations, most ex-smokers said that they quit for health reasons; however, few respondents linked health reasons to advice given by a doctor or other health professional (Fiore et al., 1990). In one survey of ex-smokers the most frequently cited reasons for quitting included health (91%), expense (60%), concern about exposing others to passive smoke (56%) and wanting to set a good example for others (55%) (Hymowitz et al., 1997).

As with other populations, it is likely that concerns about health effects are the main reason why Indigenous people cease using tobacco. In her survey of Indigenous women presenting to an urban Aboriginal Medical Service, Gilchrist (1998) reported that women who had given up smoking did so because of health/sickness (49%), with the next most common reason being pregnancy (12%).

Brady (1998) conducted a series of interviews with Indigenous people who had given up their former heavy drinking. Some of the interviews also included discussion of giving up tobacco at the same time. People described the loss of family or friends, accidents, injuries and illnesses, loss of work, loss of drivers' licences and gaol as reasons for ceasing drinking. Some had found support in the church. Some had been influenced by health professionals:

Then I got a check up. I went to see the doctor and he said, 'Oh, you got a blood pressure problem you know, you better stop drinking, because that's the problem: you got to stop smoking, stop drinking.' And I sort of listen to the doctor you know. Some doctor tell the truth, some doctor don't, but this doctor I sort of trusted him and sort of gave it up (Brady, 1998).

Several of Brady's interviews showed that it was the persistence of advice, combined with other issues, which led to the person's final decision. Many people emphasised the role of individuals in making up their own minds about cessation of drinking, despite the advice of the health professional - they considered that they had given up themselves. Brady suggests that the strengths of primary care practitioners working with Indigenous patients included:

- the patient's expectations that a doctor's job is to diagnose and give personalised advice
- the patient's belief that health professionals have detailed knowledge of the body's internal organs
- that a health professional (particularly a doctor) could provide external legitimisation for an Indigenous patient to change.

Brady (1993) also discussed Indigenous people's responses to judgement or coercion, and indicated that such approaches were likely to produce resistance and rejection. As well, she discusses the concept of abstention. 'Giving up' was part of traditional practice in many areas of Australia; for example, there were restrictions on food for pregnant women or people of different age groups, for novices in ceremony or for 'sorry business'.

Brady (1995b, 14) discussed the role of family support when Indigenous people were giving up alcohol, which also extended to support in giving up tobacco. One participant commented:

I thought it would be a lot harder giving up smoking than giving up drinking, and (it was) a lot easier in fact. With that family support, them just sitting there and just being themselves. You know gives you that support you need.

Another of Brady's interviewees mentioned that physical evidence of the effects of smoking had helped them to quit (Brady, 1995b, 128).

And then I had a heart attack...Oh yeah, I had to stop. Because it was the drinking and the smoking all that what they call it, my artillery. One vein was blocked - alcohol got out - the blood couldn't run freely. I went to Adelaide hospital, got an angiogram took a photo of my heart and they said 'see that one dent there? That's what smoking done to you and the drinking done to you, and the other dent it happened when you were having an attack.'

Cost of tobacco products may be another reason why some Indigenous people quit smoking or chewing (although for many it is not). In a series of interviews with Indigenous ex-smokers in Darwin, four out of 16 people talked about how the cost of cigarettes had made them think about quitting smoking. Two people also talked about how much it cost when family and friends were 'bludging' cigarettes (Danila Dilba Medical Service, 1999).

I was smoking about two packets a day, almost two packets a day and being a provider for everyone else to smoke and bludge. So I said, 'I'm not gunna smoke any more. When the cigarettes get to two dollars a packet I'm giving it up.' And I gave it up (Danila Dilba Medical Service, 1999).

Ex-smokers interviewed also discussed how workplace smoking bans, and bans on smoking in public transport and restaurants, had made them consider quitting (Danila Dilba Medical Service, 1999).

Current smokers frequently nominate externalised interventions as likely to help them to quit smoking. In a 1991 survey of Americans, current smokers were asked what would make them quit. Thirty four per cent said health concerns, 28% said legislative changes, 22% said cessation clinics,

23% said restrictions on tobacco sales, 19% said higher taxes and programs on radio or TV, and 10% said less advertising would help them to quit (Pederson et al., 1996).

Indigenous people who use tobacco may also be likely to nominate external interventions as being likely to help them quit. Among Indigenous participants in the evaluation of the National Tobacco Campaign, quitting was seen as being very difficult, with Nicotine Replacement Therapy (NRT) being seen as the only hope (NTC 1999, 241-2).

In the 1994 National Drug Strategy survey (CDHSAH 1996) people were asked about tobacco-related policies. Over 90% of Indigenous people supported policies which were aimed at preventing smoking in children and adolescents, including education on tobacco and stricter prohibition of supplying cigarettes to those who are under age. Strong opposition to smoking in the workplace and shopping centres was expressed by both Indigenous and non-Indigenous people. People (especially Indigenous people) were less likely to support smoking bans in clubs and pubs.

5.3 Readiness to quit

Smokers appear to move through a number of stages when quitting smoking and are more likely to quit if they have progressed through the early stages. DiClemente et al (1991) postulated that the stages of self-change include those in the table below:

Table 11 Stages of self-change

Stage	Action
1. Precontemplation	No intention to quit in the next 6 months
2. Contemplation	Awareness that a problem exists and serious thoughts about overcoming it but no serious attempts to do so yet
3. Preparation for action	Reducing cigarette consumption, making brief abstinence attempts, choosing a time and method for quitting in the near future
4. Action	Quitting
5. Maintenance	Staying abstinent

Smokers may move through stages that do not involve quitting smoking; for example, cutting down on the number of cigarettes smoked. These may be important steps to progress through and may mean that smokers become more ready to quit. DiClemente et al. (1991) assessed the spontaneous quit attempts at 6 months of people who were in the precontemplation stage of change, contemplating giving up smoking or preparing to give up smoking. At six months, 8% of 'precontemplators' had given up smoking and 26% had made quit attempts. Twelve per cent of contemplators had given up smoking and 48% had made quit attempts. Twenty-one per cent of those who were preparing to give up smoking had quit and 80% had made quit attempts.

5.4 Quit attempts

About 41% of smokers report that they have tried to give up smoking in the last year (AIHW 1994, 27).

In a survey in 1993, a sample of 601 smokers in Victoria was asked: 'If you could quit painlessly would you quit smoking or would you continue to smoke?' Seventy-five per cent of smokers said they would give up under those circumstances and 13% gave some other indication that they would like to give up. Only 12% said they were not interested in quitting at present (Mullins & Borland, 1996).

It is difficult to make comparisons between Indigenous and non-Indigenous people's quit attempts. The evidence is neither conclusive nor consistent. For example, the evaluation of the 1997-1999 National Tobacco Campaign among Indigenous Victorians showed that the number of quit attempts was lower for Indigenous people than for the general population, and fewer Indigenous people intended to quit in the future. Peer influence was seen as being a major barrier to successful quit attempts (NTC 1999, 241-2). However, the National Drug Strategy Household Survey in 1993,

revealed that Indigenous people were marginally more likely than other Australians to have made a quit attempt. At the same time it revealed that Indigenous smokers are also less likely to have made attempts to reduce their exposure to tobacco.

Table 12 Tobacco-related behaviour modification in the past 12 months

Tobacco -related behaviour modification in the past 12 months	Proportion of the current Indigenous and TSI smokers (%)	Proportion of the current smokers in the general population (1993) (%)
Tried unsuccessfully to give up smoking	45	41
Changed to low tar/nicotine brand	22	38
Reduced the amount smoked per day	32	41

In a survey of Indigenous adolescents aged 11-17 years in western NSW, 60% of smokers said that they had tried to stop smoking, some as many as nine times. Most had tried to quit two (31%) or three times (21%) (Andrews et al., 1996b).

There may be other factors apart from desire to quit that make it difficult for Indigenous people to cease tobacco use. Obviously the social and cultural contexts and pressures which contribute to Indigenous smoking must inform intervention strategies.

5.5 Addiction and difficulties facing quitters

Fagerstrom (1978) developed an index (The Fagerstrom Index) to assess how addicted to nicotine smokers were. Measurement of addiction involved, among other indicators, measuring early morning cravings for tobacco.

In her survey of Indigenous women presenting to a Perth Aboriginal Medical Service, Gilchrist, (1998) found that nearly half of the women were smokers. Seventy-six per cent of the women said that they had their first cigarette within 30 minutes of waking, and 61% said that the cigarette they would hate most to give up was the first cigarette of the day. A strong desire for a cigarette upon waking and belief that the first cigarette of the day would be the most difficult to give up, are markers of heavier addiction to tobacco.

Mullins, Borland and Gibbs asked people who attended Fresh Start smoking cessation courses about when they thought they would find it difficult to resist having a cigarette (Mullins et al., 1992-3). The most common times included after meals (70%), when drinking alcohol (67%), when socialising with other smokers (65%), when feeling sad/tense/irritable (63%), when having a craving for a cigarette (62%) and when bored (54%).

There is little information available on the difficulties experienced by Indigenous people following a cessation attempt and no reason to assume that similar difficulties would not be experienced.

5.6 Expectations and predictors of successful quitting

Mullins, Borland and Gibbs (1992-3) asked 761 people attending Fresh Start courses to rate their expectation of success. Seventy-four per cent of respondents said there was more than a 50% chance of quitting for at least a day, 21% thought the chance was 50% and 5% said the chance was less than 50%.

Indigenous people may be less likely to believe that they would be able to quit. In the evaluation of the 1997-1998 National Tobacco Campaign, in which a series of focus groups of Indigenous Victorians discussed their attitude towards quitting, many smokers thought that quitting was difficult and that they would not be able to do it (NTC 1999, 239).

In other populations, there are numerous indicators that may predict whether a smoker is likely to quit, including older age, lower consumption of cigarettes, having made previous quit attempts, having a strong desire to quit, lower stress levels and social support (Hill et al., 1994; Hymowitz et al., 1997; Wilson et al., 1990).

No studies have examined what indicators would predict the likelihood of quitting among Indigenous people who use tobacco, but Indigenous people who do attempt to quit may be hampered by lack of a supportive environment. People may continue to smoke around them or smoke in their house, and cigarettes are often freely available. In addition, Indigenous people may be less likely to have people in their family or community who wish them to quit, and who would be likely to give them support during an attempt to quit (AMA & APMA 2000, 10).

Of those interviewed in the AMA report on Indigenous smoking, young people were more likely to state the positive features of quitting (feeling 'positive', 'good about themselves' or 'determined'). Older people were more likely to believe that someone who has quit smoking is likely to feel 'bored' or 'grumpy'. Women thought that quitting would be easier than men did (AMA & APMA 2000, 11).

Because so many Indigenous people are smokers and many fail in their attempts to quit, successful quitting may not be seen as the norm within a community. Not knowing anyone who has successfully quit makes it difficult for smokers to believe that they will be successful in their own attempts (AMA & APMA 2000, 10).

5.7 Summary

From the available evidence, most Indigenous ex-smokers, like other ex-smokers, quit by themselves, without help, for health reasons. Like other smokers, Indigenous smokers believe that they would quit if given external support, through provision of NRT, or through legislative or other restrictions on tobacco use. A smaller proportion of Indigenous smokers are ready to quit than smokers in the general population, and fewer Indigenous people intend to quit in the future. There is conflicting evidence about the proportion of Indigenous smokers who attempt to quit compared to the general population. The numbers may well be quite similar.

There are indications that many Indigenous people make a number of unsuccessful quit attempts and that, like other smokers, they face problems with addiction and social contexts conducive to smoking.

6. Tobacco programs for Indigenous people

This chapter identifies and describes a range of tobacco programs being implemented with Indigenous people in Australia and elsewhere, locating these within a health promotion framework. It defines the different types of possible interventions and summarises the need for such programs identified by key health organisations.

6.1 Defining health promotion

The Ottawa Charter for Health Promotion states:

Health promotion is the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well being an individual or group must be able to identify and realise aspirations, to satisfy needs and to change or cope with the environment (WHO 1986).

The Charter states that health promotion action should occur on five fronts:

1. Building healthy public policy
2. Creating environments which support healthy living
3. Strengthening community action
4. Helping people develop their skills
5. Reorienting the health care system so that there is a greater balance between health promotion and curative services (WHO 1986).

6.2 Promoting the health of Indigenous Australians

One Indigenous definition of health states:

Health does not just mean the physical well-being of the individual but refers to the social, emotional, spiritual and cultural well-being of the whole community. This is a whole of life view and includes the cyclical concept of life-death-life. Health services should strive to achieve the state where every individual can achieve their full potential as human beings and thus bring about the total well-being of their communities (National Aboriginal Health Strategy Working Party, 1989, x).

In two 1996 reports on promoting the health of Indigenous Australians and successful health promotion programs for Indigenous people, the NHMRC concluded that changes in the health of communities will result from:

1. Public acknowledgment of the history that determines the health of Indigenous people today
2. Culturally effective, accessible health services
3. Indigenous involvement in policy and program delivery
4. Indigenous ownership of health programs
5. Equity for health services for Indigenous people
6. Partnerships and intersectoral action between the health sector and the education, housing, justice, and employment sectors
7. Partnerships between Indigenous health workers and non-Indigenous health workers and organisations (NHMRC 1996b; NHMRC 1996c, xiii-xiv).

These recommendations should be taken into account when planning tobacco programs for Indigenous people.

6.3 Types of tobacco programs

Programs aimed at reducing the harm resulting from tobacco use may include interventions in primary care (such as brief intervention, and cessation aids including NRT), interventions in the community (such as media campaigns and school education about tobacco) and legislative interventions (such as preventing sales to minors).

The effect of individual interventions on reducing the prevalence of tobacco use cannot be clearly identified; for example, growing awareness of the risks of tobacco use as a result of education campaigns may in turn have made higher taxes on tobacco more acceptable to the general public. A combination of approaches is likely to be more successful than a single type of intervention. A WHO Expert Committee on Smoking Control concluded that:

No single smoking control measure can be expected of itself to solve the smoking problem (Chollat-Traquet, 1996).

6.4 Lessons from other indigenous tobacco programs

When considering tobacco programs for Indigenous Australians, it may be useful to consider programs developed by other indigenous people.

In New Zealand, the Maori Smokefree Coalition was formed in 1997 to influence national policy and programs. The coalition consists of representatives from Maori organisations, non-government organisations and government agencies, and is active in producing educational material about the health effects of tobacco and in training health professionals about giving advice on smoking cessation. It also sponsors activities (including sports and the arts) where a quit message is promoted.

In a report by New Zealand Health, other policies to further reduce the prevalence of smoking among Maori were advocated. These included the use of Maori language on health warnings on cigarette packets, and sustained advertising campaigns in Maori media focusing on messages of 'staying quit' rather than just quitting, as many Maori smokers had quit unsuccessfully before. It was suggested that health professionals, including marae service providers, should be trained in cessation techniques. The report also suggested that the education system should incorporate quit messages (Laugesen & Clements, 1998, 37-9).

Native Americans traditionally grew and smoked tobacco and some continue to grow it commercially today. This has had an influence on the way tobacco programs are delivered to Native Americans, and in particular has influenced the discussion of traditional use of tobacco (used in ceremonies in relatively small amounts) compared to current use of tobacco (regular, heavy consumption). In a survey of 39 Native American communities (Glasgow et al., 1993), respondents reported that tribes had held a range of anti-smoking activities including stop-smoking classes, smoking assessment as part of a health fair, self-help materials, Indian Health Clinic programs and participation in the Great American Smokeout. Sixty-four per cent of tribes had written policies on buildings and areas where people could smoke.

In a review of the need for tobacco programs among Canadian Inuit people, the need for an education package about the effects of smoking was identified as one of the major priorities for reducing tobacco use, together with the need for mass media campaigns about smoking, videos, nicotine patches and guidance from health workers on quitting (CIET Canada, 1996, 16).

6.5 Stating the needs

Many organisations, both Indigenous and non-Indigenous, have identified the need for tobacco control programs for Indigenous Australians.

The National Aboriginal Health Strategy identified the need for tobacco programs for Indigenous people, including preventing uptake of tobacco use in children, providing quit support and health promotion campaigns about tobacco, and encouraging smoke-free areas (National Aboriginal Health Strategy Working Party, 1989, 134) (See Appendix 2).

Participants in a pre-conference workshop held prior to the Seventh World Conference on tobacco and health in 1990 compiled the following statement:

Where appropriate, anti-smoking strategies should include a community development approach with local Aboriginal Health Workers being encouraged to facilitate the process. Anti-smoking programs and educational material should be developed by or in consultation with appropriate Aboriginal and Torres Strait Islander people, recognising the cultural differences between urbanised, rural and traditional people whilst promoting a positive image of Aboriginal and Torres Strait Islander people. Anti-smoking health promotion should provide factual information on the effects of smoking (including the effect of smoking on pregnant women and unborn babies, women on contraceptives, youth, and exploding the myth relating to the slimming effect of smoking) (Anonymous, 1990)

A working group convened from the 2nd National Tobacco Control Summit in 1995 recommended that there was a need for research into the role of tobacco use among Indigenous people (Andrews et al., 1996a) (See Appendix 2).

In the report on Indigenous smoking commissioned by the AMA, the authors concluded that the community's ownership of tobacco as a serious health issue was most likely to come about through raising awareness of the issue, ensuring community consultation, involving senior people, empowering children to take the issue on board, using community members in education programs and ensuring programs are long-term, ongoing and comprehensive (AMA & APMA 2000, 6-7). It also concluded that programs aimed at reducing tobacco use should show long-term commitment and recognise that short-term funding is not adequate to run effective programs. The authors of the report also acknowledged the competing priorities in Indigenous communities, and that many of the people who are likely to be effective advocates for reducing tobacco use are likely to be involved in many other projects and have many other roles, including spokespeople, educators and counsellors, as well as family members.

6.6 National programs in Australia

Action at a national level has resulted in bans on most forms of tobacco advertising, the provision of smoke-free workplaces for Commonwealth employees, the introduction of smoke-free domestic air travel, reductions in subsidies to the tobacco industry and increased taxation on tobacco products.

The National Tobacco Strategy (NTS) contains recommendations for action by federal, state and territory governments and non-government organisations to address the harm resulting from tobacco use, in which Indigenous people are identified as a target group. Several key strategies are directed at Indigenous people:

- conducting a national audit of tobacco programs for Indigenous people
- working with Indigenous people to assess the social, cultural, and economic factors influencing uptake and use of tobacco
- trialing NRT with Indigenous people
- implementing action research by Indigenous communities to inform best practice cessation programs, and
- promoting best practice strategies in improving awareness of the effects of environmental tobacco smoke (CDHAC 1999) (See Appendices 2 and 4).

6.7 State and territory programs

In Australia most major anti-tobacco programs have been run by state organisations. Activities of state tobacco or Quit groups have included media campaigns, activities around Quit Week and World No Tobacco Day, provision of telephone counselling services (quitlines), quit courses, education for health practitioners on counselling, community activities and education, sponsorship of sports, the arts and popular culture, and research and evaluation.

Some states and territories - through their own departments or through health promotion foundations - fund tobacco programs for Indigenous people. These programs might include employment of Indigenous health promotion officers, devising health promotion material and activities about tobacco, conducting school education about tobacco for Indigenous children and adolescents, and running media campaigns targeted at Indigenous people (See Appendices 3 and 4). An example is the Northern Territory TAP:

The Northern Territory Tobacco Action Project (TAP)

The Northern Territory TAP is involved in a range of anti-tobacco activities. These include preparing tobacco legislation, conducting tobacco education, running quit courses, and running a quitline.

The project employs Indigenous health promotion officers who are involved in delivering tobacco programs to Indigenous people. In the Northern Territory the TAP is involved in a number of activities aimed at reducing both uptake and current prevalence of smoking in Indigenous people. It is involved in the development and distribution of health promotion resources about tobacco for Indigenous people, and has developed media campaigns about tobacco. TAP funds the incentive fund project, which provides funds for community-based programs developed by Indigenous communities (Castro, 2000).

6.8 Local government programs

Some local councils have also taken action against smoking. Activities have included banning smoking in council chambers, restricting advertising through by-laws (prior to national laws), participating in quit activities, developing 'smoke-free' signs and information, using community health centres and libraries to promote health, providing information displays, and undertaking surveys on smoking to raise awareness.

Some Indigenous local governments have conducted tobacco control programs or other health promotion campaigns which have included smoking cessation interventions. For example, Milikapiti Community Council decided to make enclosed public places in their community smoke-free (Castro, 2000).

6.9 Indigenous community-controlled programs

Many Indigenous community-controlled health services and organisations have developed tobacco programs suitable for people in their community. It is likely that such Indigenous organisations will develop tobacco interventions that are culturally appropriate and sustainable and that are delivered by members of the community, such as Aboriginal Health Workers. They may also be more likely to involve Indigenous people at all stages of the development and implementation of the program, an approach which is thought to maximise sustainability and suitability for community needs.

In 1999, the National Aboriginal Community Controlled Health Organisation (NACCHO), funded by the Commonwealth Department of Health and Aged Care, commenced consultation with Indigenous organisations and communities Australia-wide about tobacco issues (See Appendix 4).

Danila Dilba World No Tobacco Day mural

In 1998 Danila Dilba Medical Service in Darwin coordinated a project which involved Indigenous residents of a youth detention centre painting a mural for the health centre about the effects tobacco use has on health (Castro, 2000).

6.10 Non-government organisations

Some non-government organisations and health promotion foundations, such as the NHF, the Asthma Foundation, the Cancer Council, the AMA, drug and alcohol foundations and religious groups, are involved in tobacco control activities for the wider community. Some have also been involved in the development of health promotion programs for Indigenous people.

Healthy living - smoking and your family

The Asthma Foundation in the Northern Territory funded the development of a video and poster for Indigenous people about the effect of tobacco use on families and pregnant women (Asthma Foundation, 1997a; Asthma Foundation, 1997b).

6.11 Coordination of programs

Numerous organisations have recently commenced programs aimed at reducing the prevalence of tobacco use by Indigenous Australians (See Appendix 4). However, there is little documentation or reporting on such programs as yet, and it appears that currently there is little or no integrated coordination of these programs. In 1999 workers from several organisations involved in tobacco control for Indigenous people set up an informal email network to link people working in that area (Briggs, 1998). Eleven workers in the area of tobacco control for Indigenous Australians were interviewed for the AMA report on Indigenous smoking (AMA & APMA 2000, 4), and many commented that they would like contact with other workers in the area.

6.12 Summary

Tobacco programs may include interventions in primary care (such as brief interventions given to smokers by health staff and aids to cessation including NRT), interventions in the community (such as general community interventions, media campaigns and school education about tobacco) and legislative interventions (such as encouraging smoke-free areas). A mixture of approaches is likely to be appropriate. Programs in Indigenous settings have incorporated initiatives at all of these levels, adapting them for the specific needs of their communities.

A number of major Strategies, Conferences and Professional Associations have made statements identifying the need for tobacco control programs for Indigenous Australians. A community development approach has been recommended to ensure sustainability and cultural appropriateness.

Tobacco programs for Australian Indigenous people are currently being run by a range of organisations, including the Federal Government, state and territory governments, local government, Indigenous community-controlled health organisations and non-government organisations. At present, there is an unmet need for greater coordination of Indigenous tobacco programs.

7. Interventions in primary care

This chapter reviews the literature on tobacco interventions in primary care contexts and evaluates the effectiveness of a number of different interventions, including: advice; nicotine replacement therapy; bupropion; tobacco training and cessation encouragement for health professionals; special interventions for pregnant smokers; and hospital based interventions.

7.1 Rating the evidence for interventions

The NHMRC evidence rating scale (1999a, 63) (see Chapter One) and recommendations on public health interventions made by the contributors to the Cochrane and Campbell Collaborations (2000) will be used to rate clinical and public health tobacco interventions discussed in this review. A rating or recommendation will be presented in table form for each intervention for other populations and for Indigenous people, together with comments on whether evidence in other populations is likely to be applicable to Indigenous people.

7.2 Use of primary care services in Australia

Visits by people to medical services for health care may provide an important opportunity for giving advice about the effects of tobacco use. Most Australians visit general practitioners (GPs), nurses and dentists for health care. In a one-year period 80% of Australians will visit their GP (AIHW 1996, 171).

Medical services for Indigenous people are often staffed by Indigenous health workers and nurses as well as doctors. In many remote areas, there may be no resident doctor available and AHWs or nurses provide the bulk of the health care. Urban Indigenous people also visit GPs, community health centres and hospital emergency departments.

In the 1994 NATSIS (ABS 1996), when Indigenous people were asked what health services they had accessed in the previous two weeks, 8% had visited an emergency department, 3% had been admitted to hospital, 19% had consulted a doctor, 6% had consulted an AHW and 5% had consulted a nurse. In a review of medical records of Indigenous adults in two remote communities, 97% had attended the health services in a 2-year period for reasons other than for mass screening (Ivers, 1998).

Clearly these figures indicate that there is a potential for delivering tobacco cessation services during health care visits.

7.3 Existing guidelines for tobacco interventions

Many organisations recommend that people should be counselled on their tobacco use including the World Health Organisation, the Royal Australian College of General Practitioners and the NHMRC (Braveman & Tarimo, 1994; NHMRC 1996a; RACGP 1996).

There are recommendations for screening for smoking among Indigenous people. Giving advice on quitting was recommended in evidence-based recommendations on periodic health examinations for Indigenous people produced by the Kimberley Aboriginal Medical Services' Council:

In summary, because counselling has been found to be effective and even a small reduction in the prevalence of smoking has the potential for significant population health gains, there is widespread agreement that counselling against smoking be implemented as part of the periodic health examination for all Aboriginal people and be commenced early (Couzos & Murray, 1999, 42)

Guidelines published by the Central Australian Rural Practitioners Association (CARPA 1997), recommend asking about smoking as part of health screening for well adults. The guidelines recommend that questions be asked in a positive, non-judgmental way and that the person doing the health screen should have simple advice guidelines and health promotion material available to them.

Other manuals and guidelines for health staff providing care to Indigenous people may recommend giving advice to Indigenous people about quitting. Many Indigenous health services use computerised recall systems which incorporate reminders for staff to ask people about tobacco use, and to advise smokers to quit.

7.4 Raising the issue of tobacco in health consultations

Asking about tobacco use

The first step before delivering quit smoking interventions is to identify all smokers presenting for primary care. Health staff do not routinely identify all smokers. In one study in the general population, GPs only identified 56% of their smoking patients and 65% of smoking patients with smoking-related illnesses, as smokers (Dickinson, Leeder, & Sanson-Fisher, 1989). In another study, only 66% of smokers were identified by GPs (Heywood, Sanson-Fisher, Ring, & Mudge, 1994). Doctors may not ask specifically about smoking if the presented illness is not related to smoking. Sometimes smokers may deny their habit.

There is little information about whether health staff working with Indigenous people advise smokers about quitting.

A review by Ivers (1998) assessed the preventive interventions recorded in the medical records of Indigenous adults in remote communities and found that 58% of adults in the community had been asked about smoking by Indigenous health workers, nurses or doctors in the previous two years. Of these, 37% had been asked about smoking during mass screening (health weeks), 48% had been asked about smoking when they presented with a clinical problem that could be related to smoking, and 15% were asked about smoking opportunistically.

Advising about tobacco use

Patients in the general population expect that their GP will advise them against smoking (Slama, Redman, Perkins, Reid, & Sanson-Fisher, 1990). However, not all health staff give advice about quitting. In one study (Richmond, Kehoe, Heather, Wodak, & Webster, 1996), GPs advised only 38% of men and 30% of women about smoking. In another study only 34% were counselled about tobacco use (Heywood et al., 1994), and in another, 37% were advised to stop smoking (Mullins & Reid, 1994-5).

Little is known about whether health staff working with Indigenous clients give them advice on quitting. Some participants who were interviewed for the AMA Report on Indigenous smoking commented that their doctor had advised them to quit smoking, but they hadn't listened as they believed quitting was too difficult (AMA & APMA 2000, 13). Many participants said that they visited health workers infrequently, and that when they did, staff were very busy and that it only seemed appropriate to discuss their main presenting problem.

Some Indigenous people obviously do consider that it is appropriate for health professionals to ask them about tobacco use and to advise them to quit (AMA & APMA 2000,13; Brady, 1995a).

It's every medical officer's job, you know, to tell you what's right and what's wrong with you, you know, especially when you're overweight and you are a diabetic, that sort of thing they come up and tell you, 'you're not supposed to be drinking' or 'give up smoking, it's no good for your pressure' (Brady, 1995b, 13).

7.5 Advising smokers to quit

Advice given by physicians increases the chance of quitting. A systematic review of data from 16 trials revealed a small but significant increase in the odds of quitting with brief advice (odds ratio 1.69) (Silagy & Ketteridge, 1998).

Some smoking cessation programs based in clinical practice in the general population have demonstrated high quit rates. The Smokescreen program developed by GPs, delivered a quit rate of 36% at three years (Richmond, Austin, & Webster, 1986). Two or three minutes of brief advice can result in quit rates of about 5%. An example of this is the 'Sick of Smoking' program (Wilson et al., 1990).

The delivery of smoking cessation interventions by health professionals who are not doctors has been assessed in a number of studies. A meta-analysis of 39 controlled trials of smoking cessation interventions assessed 108 interventions (Kottke, Battista, DeFriese, & Brekke, 1988). The authors concluded that the best intervention would include a team of doctors and non-doctors using multiple intervention modalities to deliver individualised advice.

Smoking advice given by nurses is effective in assisting smokers to quit. A Cochrane review of 15 studies of brief counselling on quitting, given by nurses, concluded that counselling increased the chance of quitting, resulting in an odds ratio of 1.43 (Rice & Stead, 1999).

A Cochrane review of 11 randomised or quasi-randomised trials of counselling from a health care worker not involved in routine clinical care, found that individual counselling was more effective than control. The odds ratio for successful smoking cessation was 1.55. There was no evidence that more intensive counselling was more effective than brief counselling. The reviewers concluded that smoking cessation counselling can assist smokers to quit (Lancaster & Stead, 1999).

There have been no published evaluations of the effect of smoking advice given by Indigenous health workers. Some, as members of the patient's community, may feel that they are too closely associated to comment on personal behaviour among their community members.

In a study of an Aboriginal medical service in New South Wales, Sibthorpe (1988) wrote:

It was certainly clear that many Durri clients were more comfortable in professional interactions with white staff than with Indigenous staff and in many instances Indigenous staff seemed intensely uncomfortable performing some of the tasks which their job demanded.

Indigenous health workers may feel more comfortable talking to someone who is from their clan. Other health workers feel more comfortable talking to people from other language groups. Brief interventions should be culturally appropriate and delivered in a respectful, flexible and sensitive manner (Brady, 1995a). Brady also commented that one-on-one interaction with health professionals was probably more appropriate than group therapy. Such encounters are similar to encounters with traditional healers, who traditionally would consult in private.

The doctor may carry authority to talk privately with patients in a way that close associates may not (Brady, 1995a).

There was no evaluation in the literature of any program involving brief intervention for Indigenous smokers. However, the Strong Women, Strong Babies, Strong Culture Program, piloted in three remote Indigenous communities in the Northern Territory, involved advice being given to young pregnant women by senior women in the community, predominantly about nutrition, but with some advice about tobacco use. The program demonstrated a significant increase in babies' birthweights in intervention communities. However the data collected on smoking status was incomplete, so it was difficult to judge whether or not this effect was due to a decrease in maternal tobacco use (Mackerras, 1998).

Table 13 Quality of evidence for quitting advice from health staff

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
All health staff should give smokers brief advice on quitting.	I	Expert opinion	Likely to be as effective for Indigenous people. Effect of advice given by AHWs is not known.

7.6 Motivational interviewing

Many people may be ambivalent about changing smoking behaviour when they present to a health service. Motivational counselling may move a person along through the stages of contemplation of quitting, so that in time they may be more likely to make a quit attempt (Russell, Wilson, Taylor, & Baker, 1979). Important processes in motivational counselling are the establishment of rapport, the use of open-ended questions, summarising and reflective listening. The key principle of motivational interviewing is to allow the person to take responsibility for smoking (Mendelsohn & Richmond, 1992).

In a discussion of behavioural interventions for use with Indigenous people, Brady (1995a) writes of the importance of ensuring that an intervention is not authoritarian, and doesn't interfere with individual freedom. Smokers who do not want to quit may resist if challenged about a behaviour. Brady writes that Indigenous drinkers responded to a doctor who spoke 'rough way' about their drinking by 'fighting', or resisting him. Motivational interviewing allows people to explore their own problems and develop their own solutions. It is flexible and is done at a measured pace:

By so doing in the Indigenous context, the autonomy of the individual is emphasised (highly 'culturally appropriate') and the 'self determination' of the decision is stressed (highly politically correct) (Brady, 1995a).

Ian Anderson, an Indigenous doctor, wrote that:

The implication of any health intervention is that the recipient will consent to change aspects of his or her behaviour, and possibly values. This is an ethically difficult position for service providers, particularly given the history of coerced social change and Indigenous communities. However, not only is it ethically wrong to impose change on people, it is actually impossible in any comprehensive sense, unless you want to regulate every aspect of their lives. This is one reason why self-determination is a necessary principle of Indigenous programmes. It is only realized where programmes are structured in such a way as to allow Indigenous people to engage with the possibilities, have the necessary resources to make changes, and to be convinced that the changes will enhance their lives (Anderson, 1994).

It is critical that smokers are not blamed for their smoking, as smoking can be viewed as a predictable and inevitable response to Indigenous people's lifestyles and history (AMA & APMA 2000, 4).

7.7 Harm minimisation

There are alternatives to focussing on abstinence in smoking programs aimed at Indigenous people. While recognising that smoking is harmful at any level, Roche and Ober (1997, 128-33) advocated a harm minimisation approach similar to that used for other drugs, as an alternative to the abstinence model. Such approaches would include:

- Increasing access to treatment - for example, by providing smoking cessation treatment as part of routine medical services
- Finding safer ways to use tobacco - for example, low tar cigarettes
- Decreasing drug intake - for example, decreasing the number of cigarettes smoked per day
- Monitoring for early detection of associated diseases
- Protecting non-users - reducing passive smoking
- De-stigmatising use - creating empathy for those unable to stop.

The authors acknowledged that some features of the harm minimisation technique have not been proven, (for example smokers of low tar cigarettes may alter their smoking technique to extract more nicotine, with the result that more tar is also extracted (Woodward & Tunstall-Pedoe, 1992)) but suggested that given the high prevalence of smoking within Indigenous populations, the advantages of such an approach are likely to outweigh the disadvantages. They also acknowledged that it is not an ideal approach, but is pragmatic, and that cessation was still the ultimate goal. They suggested that the harm minimisation approach may mean that AHWs who smoke are able to offer minimisation and cessation advice, and that it avoided the punitive and anti-pleasure aspects of the abstinence approach.

7.8 Nicotine replacement therapy

Nicotine replacement therapies (NRT) may be useful for heavy smokers, or addicted smokers, when trying to quit. NRTs provide nicotine to decrease the side effects of nicotine withdrawal, such as cravings. Nicotine patches, gum and inhalers are available over the counter in pharmacies.

A Cochrane review of the 100 trials of nicotine replacement therapy concluded that NRT increased smoking cessation rates. The odds ratio for abstinence with NRT compared to control was 1.71; the odds ratios for the different forms of NRT were 1.63 for gum, 1.73 for patches, and 2.08 for inhaled nicotine. Only one study directly compared NRT to an antidepressant (bupropion); bupropion was significantly more effective than nicotine patch or placebo. The combination of bupropion and nicotine patch was significantly more effective than nicotine patch alone (Silagy, Mant, Fowler, & Lancaster, 2000).

A meta-analysis of the use of NRT in smoking cessation (Silagy, Mant, Fowler, & Lodge, 1994) analysed 53 trials of NRTs including nicotine gum, nicotine patches, nicotine inhalers and sprays (the latter is not licensed for use in Australia). Use of nicotine gum increased the odds ratio of abstinence to 1.71. The use of nicotine patches increased the odds ratio of abstinence to 2.07. The pooled abstinence rate for all of the NRT studies was 19%, compared to a cessation rate of 11% for controls.

Abstinence rates were much higher in studies involving hospital patients (25% for nicotine patches compared to 19% for controls), community volunteers (25% for nicotine gum compared to 22% for controls) or those attending smoking clinics (36% for nicotine gum compared to 23% for controls). The cessation rate for those attending primary care was 11% for nicotine gum, compared to 11% for controls.

There is little data on the use of NRT by minority populations. Over-the-counter NRT may not be accessible to minority populations because of financial constraints (Simmer et al., 1997). While nicotine patches are available as an over-the-counter medication, they are not available through the Pharmaceutical Benefits Scheme (PBS). Some Indigenous health centres have stocked NRT; some have sold it to smokers (normally at cost price) and a few have allocated funds from their health centre budgets to pay for or subsidise NRT. A few organisations have trialled the use of NRT by Indigenous people, but none of these trials have been formally evaluated.

Noel Hayman, an Indigenous doctor, conducted a short trial of nicotine patches in southern Queensland, which involved giving patches to 15 smokers. After six months, two of them had given up smoking (Hayman, 2000).

A trial of a short project was conducted at Danila Dilba Indigenous Medical Service with the aim of making NRT available to Indigenous people (Stephenson, 1998). The small numbers of people involved meant that the project was halted and services were delivered as usual. A small trial of six clients using nicotine patches at Framlingham Mission in Victoria resulted in four people successfully quitting smoking (Briggs, 2000).

Participants in interviews and focus groups about Indigenous tobacco use (AMA & APMA 2000, 8) believed that nicotine patches should be made available to Indigenous people and that cost should not be a barrier to access. They believed that they would be more likely to quit, due to a reduction in cravings, if they had access to free NRT.

It is likely that NRT has the same physical effect on Indigenous people as for other populations. It appears from two small trials that nicotine patches may be effective for some Indigenous people who wish to quit. However the cost of NRT may prohibit some Indigenous people from accessing it.

Table 14 Quality of evidence for interventions involving NRT

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Using NRT increases the chance of quitting	I	IV	NRT is likely to have the same physical effect as for other populations, but may not be accessible to Indigenous people because of cost

7.9 Bupropion

Antidepressants may help smokers attempting to quit by reducing symptoms of depression. In a Cochrane review of all antidepressants for their effect on smokers attempting to quit, the authors examined RCTs comparing a range of antidepressant drugs. They concluded that nortriptyline and bupropion both increased the likelihood of stopping smoking, and that bupropion when used in combination with a nicotine patch produced higher quit rates than a patch alone (Hughes, Stead, & Lancaster, 2000). Similar conclusions were reached by Silagy et al (2000).

Bupropion was released onto the Australian market in late 2000, and has been listed on the PBS and therefore may be accessible to many people on low incomes, including Indigenous Australians. There were no reports of trials of bupropion among Indigenous people; however it is likely to have a similar physical effect as that in other populations.

Table 15 Quality of evidence for interventions involving bupropion

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Using bupropion increases the chance of quitting	I		Likely to have a similar effect for Indigenous Australians. Bupropion is probably more accessible than NRT as it is available on the PBS.

7.10 Other methods used for smoking cessation

Other methods used for smoking cessation such as the use of nicotine blockade, clonidine, tranquillisers, lobeline, herbal products, aversion therapy, shock treatment, hypnotherapy or acupuncture have not been shown to have a conclusive effect, or have been shown to have significant side effects (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000; Glassman et al., 1988; Mattick & Baillie, 1992).

In a review of Indigenous ex-smokers (Danila Dilba Medical Service, 1999), one had successfully used aversion therapy (smoking a lot of cigarettes in one go) to cease smoking, but it is not possible to generalise from one case.

7.11 Training health professionals in smoking cessation techniques

Training health staff in giving advice to smokers on quitting has a small but significant effect on increasing the number of smokers who quit.

In a Cochrane review of delivering additional training to health care professionals to provide smoking cessation interventions, Silagy concluded that such interventions only slightly, but significantly, increased the likelihood of quitting (Silagy, Lancaster, Fowler, & Spiers, 1997). People who had been offered advice by health professionals who had been trained in smoking cessation methods were more likely to have stopped smoking after 6 or 12 months than patients who attended a control practitioner (5.5% versus 4.8%, $p=0.002$). One hundred and forty-three patients would need to be treated by a health worker trained in smoking cessation methods to result in one person quitting smoking. Health professionals should ideally learn about tobacco issues as part of their training, during post-graduate training or during in-services.

There has been no evaluation of the effect of training health staff working with Indigenous people in giving advice about tobacco. There are, however, two known training packages for health staff working with Indigenous smokers - the Gnummari Wa training manual and the Pongi Pongi Book (see Appendix 3).

Gnummari Wa training manual

The Marr Mooditj Foundation developed a training manual, video and other resources about tobacco for Indigenous people. Courses were held in Western Australia to train Indigenous health workers about how to advise smokers to quit (Marr Mooditj Foundation Incorporated and Health Department of Western Australia, 1995).

Many Indigenous health professionals are trained in the health effects of tobacco. For example, Batchelor College and Danila Dilba Medical Service's training school in the Northern Territory run training courses for Indigenous health workers with modules which include information on the health effects of smoking, the effect of smoking in pregnancy and actions to reduce smoking (Brown, 1998; DiFrancesco & Batchelor College, 1998; Paterson & Batchelor College, 1998).

The West Australian branch of the NHF conducted the first accredited training course on cardiovascular health for AHWs in 1998. The course includes education on passive smoking and cessation (Lindorff, 1999).

The number of Indigenous people trained as specialist health promotion workers or trained in tobacco control is limited. Participants interviewed in the AMA review of Indigenous tobacco use commented that there was a clear need for such training in order to maintain a skilled workforce in the area (AMA & APMA 2000, 40).

Table 16 Quality of evidence for training health professionals in smoking cessation techniques

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Training health professionals in giving brief interventions on tobacco can reduce the prevalence of tobacco use	I	Expert opinion	As for other populations, likely to have a small but significant effect

7.12 Health professionals who use tobacco

Health professionals who smoke may be less likely to give effective advice about quitting. A controlled trial by Miwa et al (1995) showed that health professionals who smoked were less likely to advise patients to stop smoking.

Likewise, health professionals who smoke may be less likely to advise Indigenous smokers about quitting. The prevalence of tobacco use among health staff working with Indigenous people may be higher than that in mainstream society. Lake's survey of 84 health service workers who work with Indigenous people (1992), found that 39% of Indigenous staff were smokers, 22% were ex-smokers and 33% had never smoked. In contrast, 26% of non-Indigenous staff smoked, 30% were ex-smokers and 42% had never smoked.

A survey of Indigenous health workers in western New South Wales showed that the prevalence of smoking among Indigenous health workers was similar to that amongst the Indigenous population. About two-thirds of AHWs smoked (Andrews et al., 1997). All of the AHWs had tried giving up, and most wanted to give up. Most felt that they would like help to stop smoking and that their communities would benefit from smoking cessation interventions.

Smokers may also be less likely to act on advice from health professionals who are smokers. This may apply to non-Indigenous as well as Indigenous health workers and other health professionals. In Brady's interviews with ex-drinkers, one AHW commented:

... it wasn't fair, telling others and I, look, like I'm smoking, drinking and I sort of thought 'hang on, some doctors smoke, and they're telling some of our mob not to smoke, and they smoke' (Brady, 1995b, 14).

A reduction in the prevalence of smoking amongst health staff who provide services to Indigenous people is likely to have an impact on the effectiveness of the delivery of smoking cessation services. In particular, programs aimed at reducing the prevalence of smoking among Indigenous health workers - who provide much of the primary preventive care within Indigenous health services - are likely to strengthen the cessation messages given (Briggs, 1996).

There are many barriers to health professionals giving advice about tobacco to Indigenous people. These include:

- The high prevalence of tobacco use among health professionals
- Health professional who smoke may feel unable to advise others to quit, and feel that smokers would not listen to them
- Health professionals may believe that their own unsuccessful attempts to quit reinforce the difficulty of quitting to their clients
- Health professionals may fear that advising people to quit is intrusive and may result in loss of patients
- Lack of adequate education and training for health staff
- Lack of standardised, simple effective methods for detection and assessment of tobacco use
- Lack of specialist Indigenous health promotion staff trained in tobacco control issues
- Unfavourable attitudes, unwillingness to intervene or acknowledge problems; lack of support from peers
- Time constraints and lack of staff
- Other priorities, including other substance abuse issues
- Poor outcomes: high failure rates can leave health professionals feeling discouraged, frustrated and low in confidence
- Lack of financial incentives and government funding, and lack of a coordinated approach.

(AMA & APMA 2000, 60; Baum, Kalucy, Lawless, Barton & Steven, 1998; Briggs, 1996; NTC 1999, 244; Roche, 1996, 205).

The authors of the report on Indigenous smoking commissioned by the AMA (AMA & APMA 2000, 7) concluded that strategies to address issues related to smoking among health workers might include:

- Recognition of how stressful a health worker's job is
- Seeking alternatives to smoking during 'time out', rather than removing smoking/relaxation time
- Instilling ownership of tobacco use as an issue
- Encouraging health workers to take smoking seriously
- Educating health workers about smoking.

Table 17 Quality of evidence for advice from health professionals who are smokers

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Health professionals who smoke may be less likely to advise smokers to quit	III-2	Expert opinion	Likely to also be similar for health professionals working with Indigenous people. Supporting health professionals to quit is especially relevant because of the high prevalence of tobacco use among health professionals working with Indigenous people.

7.13 Tobacco interventions for pregnant women

There is evidence that giving advice on quitting to pregnant smokers significantly increases their likelihood of quitting.

A Cochrane review of 44 smoking cessation programs for pregnant women concluded that such programs reduced smoking (OR 0.53), low birthweight (OR 0.8) and preterm birth (OR 0.83), but no effect was detected for perinatal mortality. Such programs result in an increase in mean birthweight of 28 grams (Lumley, Oliver, & Waters, 1999). A systematic review of pre-natal counselling on tobacco use showed that counselling can reduce the incidence of low birthweight (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000).

The prevalence of tobacco use by pregnant Indigenous women may be high in certain regions. In data collected by New South Wales Health Department midwives, 60% of Aboriginal and TSI women reported smoking at some time during their pregnancy (AMA & APMA 2000, 20). In a survey of 206 pregnant women in remote communities in the Northern Territory, 72% smoked (Watson, 1986). Some Indigenous women quit during pregnancy but many take up smoking again following the birth of their child (AMA & APMA 2000, 11).

Several health promotion resources have been developed for Indigenous people, specifically to address the effect of smoking on pregnant women (see Appendix 3). Only one program has evaluated an intervention aimed at reducing tobacco use in pregnant women:

The Strong Women, Strong Babies, Strong Culture Program

The Strong Women, Strong Babies, Strong Culture Program was piloted in three remote Indigenous communities in the Northern Territory. It consisted of a program delivered by senior Indigenous women community workers who were not health workers but who talked to young women about antenatal care. The program incorporated advice on smoking cessation, including the use of a flip chart. The prevalence of low birthweight declined from 20% before the program to 11% after the program. In other communities in the region, the prevalence of low birthweight declined from 17% to 16% during the same period. In the pilot communities, mean birthweight rose from 2915g to 3086g, and in the comparison communities, it rose from 2947g to 3039g. The increase in birthweight was 79g higher in the pilot communities than in the comparison locations (Mackerras, 1998). However, it was not known whether the prevalence of smoking or the number of cigarettes smoked decreased at the end of the study period.

Table 18 Quality of evidence for advice to pregnant women

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Advising pregnant women to quit can increase birthweight, decrease preterm birth and decrease smoking rates	I & recommended in systematic review of public health interventions	One intervention, low quality data on tobacco exposure	Interventions likely to show a benefit in Indigenous populations. Giving advice on quitting is important because of the high prevalence of smoking in pregnant Indigenous women.

7.14 Hospital based smoking cessation interventions

Hospitals have been used as a venue for the delivery of quit smoking messages.

A Cochrane review of interventions for smoking cessation in hospitalised patients concluded that high intensity behavioural interventions that included at least one month of follow-up contact were effective (Rigotti, Munafo, Murphy, & Stead, 2001).

Hospitals have been used as a venue for delivery of education about alcohol to Indigenous inpatients (Bulteau & Burns, 1978), and hospital staff may also have a role in the delivery of messages about quitting smoking to Indigenous people. However, no studies have evaluated the effect of quit programs for Indigenous inpatients.

Table 19 Quality of evidence for advice to hospital inpatients

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Giving advice about quitting to hospital inpatients can increase quit rates	I		Likely to also show a benefit in Indigenous populations

7.15 Summary

- There is good evidence from other populations that brief advice from health professionals (doctors, nurse and others) can help about 6% additional smokers quit.
- While there is little evidence about the effect of tobacco advice given by Indigenous health workers, it is likely to be effective. Guidelines produced by Indigenous organisations recommend advising smokers to quit.
- Culturally appropriate, non-coercive methods of counselling may be most appropriate in an Indigenous setting. While not ideal, harm minimisation approaches may also be a pragmatic alternative to a focus on abstinence.
- There is good evidence that NRT increases the quit rate in other populations and limited evidence that it may be similarly effective with Indigenous people. Many Indigenous smokers certainly believe that they would benefit from NRT. However NRT may be inaccessible to Indigenous people because of its cost.
- There is good evidence in other populations that the antidepressant bupropion may assist smokers to quit, especially when used in conjunction with nicotine patches. While it has not been evaluated in an Indigenous setting, it is likely to have a similar effect as in other populations.
- Training health professionals about advising smokers has a small but significant effect in reducing the number of smokers in other populations. Appropriate training for AHWs, nurses and doctors who work with Indigenous people is likely to have a similar effect. There are several training modules that have been developed for Indigenous people, and training in giving advice on tobacco may also be included in undergraduate health training.
- Many Indigenous health workers and community workers are smokers and may therefore be less likely to give advice about quitting. There are also a number of other barriers to health professionals giving tobacco advice to Indigenous smokers. The effect of encouraging health staff who smoke to quit has not been evaluated, but it is likely that tobacco programs aimed at such staff will strengthen cessation messages given.
- Interventions to assist pregnant women to quit are successful in decreasing tobacco use and increasing birthweight in other populations. Up to 72% of pregnant Indigenous women smoke and Indigenous infants are more likely than others to be low birthweight, with smoking thought to be a contributing factor. Health promotion resources specifically to address the effect of smoking on pregnant Indigenous women have been developed. One intervention incorporating advice about nutrition and tobacco, delivered by community-based Indigenous workers, resulted in weight gains for Indigenous infants; however the data on tobacco use was poorly recorded.
- There is evidence in other populations that high intensity interventions with hospital inpatients result in higher quit rates. However, there have been no trials of hospital based quit advice for Indigenous smokers.



8. Community interventions

This chapter describes and evaluates community-based interventions to reduce the prevalence or inhibit the uptake of smoking among Indigenous people. A variety of specific and more generalised strategies are reviewed, including: media campaigns; workplace programs; quitlines; quit courses and support groups; passive smoking programs; the sponsorship of smoke-free events; youth programs; and a range of health promotion resources and approaches.

8.1 Generalised community interventions

It is unclear whether generalised community campaigns about tobacco decrease its prevalence. There is, however, some evidence that community tobacco interventions are effective in reducing uptake of tobacco use in young people (Sowden & Arblaster, 2000).

One large community-based study conducted in the United States - the Community Intervention Trial for Smoking Cessation (COMMIT) project - assessed a large-scale multi-component community intervention designed to decrease the prevalence of smoking. Communities were assigned to either a control or intervention group. Communities chose from 58 interventions, including the use of the media, health care providers, worksite and cessation programs (Redman, 1996). A small decrease (not statistically significant) was noted in the 'intervention communities' compared to control communities: the cessation rate of heavy smokers in the intervention group was 19% and in the control group was 18%. The program may have failed to reduce the prevalence of tobacco use because the prevalence of smoking was already low prior to the program being conducted and because many smokers would already have been exposed to quit messages.

In a randomised controlled trial of a community-action intervention to address smoking behaviour in rural Australian towns, communities participating in the intervention were involved in the formation of community committees and the use of local networks to initiate and maintain intervention strategies. Adults in towns participating in the intervention showed mainly non-significant increases in quit rates and non-significant decreases in uptake rates compared to control towns. Significantly more male smokers (7%) quit in towns participating in the intervention than in control towns (Hancock, Sanson-Fisher, & Perkins, 2000).

The Sydney Quit smoking campaign (1983) and the Melbourne Quit smoking campaign (1984) led to an immediate 2.6% drop in smoking rates, and a continued drop of 1.5% annually of male smokers. Prior to the campaign, there had been no drop in smoking rates (Hill, White, & Gray, 1988; Pierce, Macaskill, & Hill, 1990). The campaigns involved a variety of activities and were promoted through the mass media, doctors' surgeries and schools, and through community-based activities.

In the smoking cessation program in a village in Fiji that utilised both Western smoking cessation techniques and native traditional rituals, strategies included a group pledge to quit smoking, a media campaign and a tabu formalised through a kava ceremony. The conventional Western approaches to smoking cessation were largely unsuccessful, but the process of village empowerment proved to be a powerful influence, resulting in all of the villagers quitting, with only a few exceptions (visitors, elders). Nine months after the intervention, smoking was almost non-existent in the village; 21 months after the intervention smoking rates were still very low. The evaluators of the project commented that letting go of Western agendas in smoking cessation programs and allowing local Indigenous people to develop their own programs had led to the success of the program (Groth-Marnat, Leslie, & Renneker, 1996).

In Australian Indigenous communities there have been few examples of community interventions. The Lung Story project in Central Australia used a community development approach to reducing tobacco use but the program was not evaluated for changes in behaviour or attitudes to tobacco use:

The Lung Story

The 'Healthy Lung Story' was developed by a health promotion officer and artists from remote communities in Central Australia. The project used a community development approach to health promotion and involved the creation of a series of dot paintings depicting healthy lungs, unhealthy lungs and the risks of passive smoking. The paintings used traditional symbols and can be used to depict family and community relationships and how tobacco affects them. The project also involved the development of posters, banners and feltboards, the development of booklets about the effect of tobacco use on pregnant women, and the development of action plans for smoke-free remote communities, as well as providing education for health workers (Gill, 1999).

The role of elders is likely to be an important factor in the success of community interventions in Indigenous communities. In the evaluation of the National Tobacco Campaign 1997-1998 among Indigenous people, many people thought that the elders of their community could play a large role in encouraging quitting behaviour. The evaluation suggested, however, that the role of elders was less critical among teenagers than among the adult population. The high prevalence of tobacco use among elders was felt to detract from their influence unless they were able to quit themselves. The potential for community health workers to be forces of change within a community was also evident (NTC 1999, 240-1). Participants in focus groups contributing to the AMA report on Indigenous smoking also commented that the involvement of elders was important in successfully reducing smoking levels (AMA & APMA 2000, 6).

No evaluation of the effect on smoking behaviour of community interventions has been carried out in an Indigenous setting. Because of the high rates of tobacco use in Indigenous communities, the relative lack of exposure to quit messages, and the potential to develop momentum through community projects, it is possible that community-based tobacco interventions in Indigenous contexts may be more likely to succeed than those elsewhere.

Table 20 Quality of evidence for generalised community interventions

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Large community interventions on tobacco reduce the prevalence of smoking	Results unclear		Interventions may be more effective because of relative lack of exposure to quit campaigns

8.2 Interventions to improve socioeconomic status

People with a lower socioeconomic status are more likely to use tobacco. A systematic review of interventions to improve the lives of community members through education, training and employment concluded that there was no evidence that interventions aimed at encouraging individuals to take control of their lives had any effect. It argued that structural and legislative measures were the most effective interventions for reducing health inequalities (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000).

The association of decreasing smoking prevalence with increasing education and higher socioeconomic status among Indigenous people could lead to the following conclusion: that if the education and socioeconomic status of Indigenous people could be improved, then the prevalence of smoking may decrease (Guest et al., 1992). However no specific interventions of this kind have been evaluated for their effect on tobacco use among Indigenous people.

Recognition of Indigenous people's history and supporting the Reconciliation process may also play a part in improving the health of Indigenous people:

In aiming towards substantial and sustainable improvements in the health of indigenous Australians, the underlying causes of ill-health must be recognised and addressed. Disempowerment and dispossession, oppression and racism, poverty and unemployment, alcohol abuse, poor housing and inadequate infrastructure are some underlying factors which must be addressed (O'Donoghue, 1995, 5).

8.3 Mass media campaigns

Media advertising can be an effective method of promoting the cessation of smoking and of reducing the prevalence of tobacco use. For example, one systematic review of media campaigns targeted at smokers showed campaigns could result in a small reduction in the prevalence of smoking (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000). Campaigns may also be effective in preventing uptake among young people (Sowden & Arblaster, 1998).

The National Tobacco Campaign, launched in 1997, involved a media campaign (including television and radio advertising), coordination with quitline services, and resulted in a statistically significant reduction of 1.5% in the estimated adult prevalence of smoking (NTC 1999, 25).

Indigenous people are exposed to mainstream campaigns. The impact of the National Tobacco Campaign was investigated among Indigenous people in Victoria. There were high levels of awareness of the campaign and high levels of message recall and, importantly, the campaign affected people's knowledge of the health effects of tobacco use (NTC 1999, 238). In particular, there were no differences between the findings for Indigenous people and the findings of previous research in the general population, in terms of either awareness or message recall from these advertisements (NTC 1999, 240).

I don't think there is (any difference between the Aboriginal and non-Aboriginal population regarding effectiveness of recent TV campaigns). I mean they are targeting smoking, all lungs are the same (NTC 1999, 249).

There are diverse perceptions of the effectiveness of mainstream campaigns among Indigenous people. Some of those interviewed reported that the television advertisements had an immediate effect in assisting them to quit.

I quit for three months when I saw that ad...Straight away (NTC 1999, 250).

People were not concerned about the graphic nature of the advertisements used in the campaign (a picture of a brain with a stroke and an aorta filled with fatty deposits). Many people remembered the health messages in the ads; however, a smaller group of Indigenous people did not believe them.

The only one that scares me is the brain one...but I don't reckon that happens (NTC 1999, 251).

When asked to discuss what features Indigenous tobacco programs should include, a number of Indigenous people concluded that they needed to be locally based and include local content, involve elders and significant community members in their design and delivery, and have a broad community focus.

However, many participants recognised that campaigns aimed at the general population (such as the 1997-1998 campaign) may also be appropriate for Indigenous people, although they preferred programs designed specifically for Indigenous people.

The only thing is that when it comes to Aboriginal people, they will not relate to (Quit television advertisements) because they don't see a black face...I've heard the kids say, 'Oh yeah, but that's only white fellas'. They do (NTC 1999, 252)

They work, but I think we need to have black heads in amongst the campaigns (NTC 1999, 252).

Many people interviewed for the AMA report on Indigenous smoking (AMA & APMA 2000, 11) said that television advertisements did not impact on their smoking. Nevertheless, most were able to recall the advertisements. Participants believed that mainstream advertisements were not relevant to them, and that they would take notice of them if they featured Indigenous people. They said that people featured in television advertisements did not have to be people they knew, but did need to be people they related to. Participants thought that appropriate themes could include:

- Smoking is not part of Indigenous culture.
- Health messages must be simple and make a connection that shows how smoking causes the health problem.
- Messages about fitness - sport is important to Indigenous people.
- Messages about passive smoking and the effect on children.
- Messages about the bad smell associated with smoking.
- Cost of smoking.

Indigenous people may also be influenced by other sources of media information. In the series of interviews with Indigenous ex-smokers in Darwin, some commented that they had been encouraged to quit by current affairs programs that showed the strategies undertaken by tobacco companies to promote their products (Danila Dilba Medical Service, 1999).

There are some examples of media campaigns targeted directly at Indigenous people; however none have been evaluated.

The 1994 Western Australian Quit Campaign
 The 1994 Quit Campaign in Western Australia was the first campaign in Western Australia to target Indigenous people. Strategies included the distribution of resources to Indigenous health professionals, broadcasting a series of radio advertisements aimed at Indigenous people, and a competition encouraging Indigenous health workers to give up smoking (Health Department of WA 1997). A Quit newsletter, entitled 'Give it Away on Quit Day', was also produced for Indigenous health workers to coincide with Quit Day on 31 May 1994. The aim of producing the newsletter was to educate AHWs on the health risks of smoking and the benefits of quitting, and to help AHWs to quit smoking. The Smoking and Health Team also developed a 'Quit and Sit' competition for Indigenous health workers, with football tickets as an incentive for a health worker to quit and stay quit for four weeks (Walley & James, 1995).

Table 21 Quality of evidence for media campaigns

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Media campaigns reduce the prevalence of smoking	III-3 & recommended in systematic review of public health interventions	IV	May be less effective if Indigenous people feel the media campaign is not about them. Targeted media campaigns are likely to be effective.

8.4 Interventions for young people

School education about tobacco is likely to have a small effect in increasing knowledge but does not appear to decrease uptake of tobacco use.

A meta-analysis of 94 school-based tobacco interventions showed that education programs could increase knowledge about tobacco and were more likely to decrease tobacco use if they used social reinforcement (Bruvold, 1993).

A systematic review of school-based education programs also concluded that programs which used social reinforcement techniques and not just simple education or information, reduced uptake of tobacco use (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000).

A Cochrane review of 13 studies reporting on community interventions for preventing smoking in young people assessed coordinated, widespread, multi-component programs and concluded that there was limited support for the effectiveness of community interventions in helping prevent the uptake of smoking in young people (Sowden & Arblaster, 2000). Whereas a Cochrane review of six mass media interventions for preventing smoking in young people concluded that there was some evidence that the mass media can be effective in preventing the uptake of smoking in young people. However overall the evidence was not strong (Sowden & Arblaster, 1998).

Several school-based educational programs have been run for Indigenous school children, but none have been formally evaluated (see Appendix 3).

Jabby Don't Smoke

The Jabby Don't Smoke project involved the development of resources for teaching smoking prevention to Indigenous children in remote communities in Western Australia. The project involved live performances using puppets, the development of an accompanying video and a mass media campaign (Dale, 1999).

Specific study units for Indigenous students have been developed, including 'Say No to Smokes' - a video and workbook for Indigenous adolescents in school and community settings (CEIDA 1998).

The Yamatji Smoking Prevention Program in Western Australia involved school sessions about smoking. The evaluators of the project reported that the target groups were difficult to reach, although the program was well received and the resources were popular (Eades & Ambrose, 1999, 44-5).

The Maningrida 'Be Smoke Free' Project was a 2 week intervention in the school of one of three participating communities in the Top End of the Northern Territory. The intervention included a number of activities - the launch and use by students aged 5-17 years of a locally produced CD-ROM; teaching of the Northern Territory tobacco curriculum; a declaration of smoke-free education and health centres; prizes for 'Be Smoke Free' songs and posters; a 'Be Smoke Free' concert featuring local bands; visits from famous sportspeople; and educational displays. The project was not fully evaluated because of the low attendance of children at school (Johnston et al., 1997).

Strategies to combat the uptake of tobacco use by Indigenous children and adolescents were developed at the workshop held prior to the Seventh World Conference on tobacco and health in 1990 and are reproduced below:

Anti-smoking education for Aboriginal and Torres Strait Islander preschool and school children should include:

- making health education a top priority subject at all levels from kindergarten to year 10 in all schools
- individual schools establishing a non-smoking policy relating to students and teachers
- strengthening legislation relating to the sale of tobacco products to minors in all states and territories where it exists, and introducing it where it does not exist; as well as redoubling efforts to police this legislation and publicise through the media that it is an offence to sell tobacco to children
- developing education programs and culturally appropriate resources that promote self-esteem and develop children's skills to resist peer group pressure in relation to drug use
- providing appropriately trained counsellors at schools to assist children with drug (including smoking) addictions
- developing culturally appropriate anti-smoking education resource materials for teachers.

The recommendations also included involving parents in advising children and adolescents not to smoke (Anonymous, 1990).

However in the report on Indigenous tobacco use commissioned by the AMA, parents stated that they were unhappy that their children smoked, but felt powerless to advise their children to stop smoking, as they felt that they did not have credibility. Parents were very supportive of schools educating children about the health risks of smoking, even if children then ‘hassled’ their parents to quit (AMA & APMA 2000, 9)

Table 22 Quality of evidence for school-based and community interventions with young people

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
School-based education programs about tobacco increase knowledge about tobacco	I & recommended in systematic review of public health interventions	IV	Likely to be effective for Indigenous adolescents, especially if targeted specifically at them
Community interventions for preventing smoking in young people are effective in preventing the uptake of smoking in young people	I		Likely to be effective for Indigenous adolescents, especially if targeted specifically at them

8.5 Workplace interventions

A systematic review of workplace tobacco policies concluded that workplace interventions and policies can reduce tobacco consumption at work and can reduce exposure to environmental tobacco smoke in the workplace, although smokers may smoke more during non-working hours (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000).

A meta-analysis of workplace-based quit smoking programs assessed 20 controlled studies containing 34 treatments with control comparisons of long-term quit rates (on average 12 month quit rates) (Fisher, 1990). The authors concluded that workplace interventions had a modest but significant effect. The weighted average follow-up quit rate from all interventions was 13%.

There are no documented workplace smoking cessation interventions for Indigenous people, and no reports of evaluation of such programs. However, in a series of interviews with 16 Indigenous ex-smokers in Darwin, four had quit mainly because of workplace smoking bans (Danila Dilba Medical Service, 1999). Such programs are likely to also be effective for employed Indigenous people; however higher rates of unemployment may mean that many Indigenous people do not have access to such programs.

Table 23 Quality of evidence for workplace interventions

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Workplace tobacco programs can reduce exposure to tobacco smoke in the workplace and can reduce the prevalence of tobacco use	I & recommended in systematic review of public health interventions		Interventions are likely to be effective for employed Indigenous people

8.6 Quit courses and support groups

Quit smoking programs generally involve trained counsellors who counsel on the risks of smoking and the benefits of ceasing smoking, and teach smokers skills they may need when ceasing smoking. A Cochrane review of group therapies and smoking cessation included reviews of 13 studies that compared a group program with a self-help program. There was no evidence from two trials that group therapy was more effective than a similar intensity of individual counselling. The reviewers concluded that although there is not enough evidence of the effectiveness of groups compared to intensive individual counselling, there is evidence that groups are better than self-help and other less intensive interventions (Stead & Lancaster, 2000a). Although quit courses are useful for heavier or more addicted smokers, they are relatively expensive and they may be inaccessible to high-risk target groups such as Indigenous people, the poor, the less-educated, or pregnant women (Mullins et al., 1992-3).

No Quit courses or support groups specifically for Indigenous people who use tobacco have been evaluated.

A Fresh Start for Indigenous smokers in Victoria

Quit Victoria ran a training course for health staff who wanted to conduct quit courses specifically for Indigenous people (1996; Briggs, 1998). Fresh Start, the quit course used by Quit Victoria for the general community, was adapted for Indigenous participants. The original Fresh Start program allowed only non-smokers to run courses. Because of the high prevalence of smoking in the Indigenous community, including people who were likely to be running quit courses, this was relaxed to allow smokers to participate. The style of the course was also changed so that starting and finishing times were more flexible, and participants were allowed to ask questions at any time through the program. Quit Victoria also developed a smoking cessation pamphlet, the Koorie Can Quit Book.

Staff at the health centre in one remote Indigenous community developed an ex-smokers' support group which supported smokers for some time after quitting (Castro, 2000).

In the evaluation of the 1997-1998 National Tobacco Campaign, the response to the concept of quit groups was mixed among Indigenous people. Quit groups were felt to be more useful for older (40+) smokers who were experiencing health problems as a result of smoking, and who wanted to quit. Indigenous people reported that they would be unlikely to attend quit groups within the general community, reflecting the need for programs targeted at Indigenous people. In particular, many Indigenous people believed that such quit groups should be conducted by Indigenous ex-smokers (NTC 1999, 243).

Some Indigenous smokers may support the concept of quit groups because of a perceived lack of support among their family and friends. In particular, quit support groups are seen to provide support and examples of other people who have quit successfully (AMA & APMA 2000, 10). Smokers also thought that the provision of free NRT via a quit course may assist them in quitting.

Table 24 Quality of evidence for quit courses and support groups

Intervention	Quality of evidence(NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Quit courses and group therapy can assist smokers to quit	I		Probably useful for Indigenous people, particularly quit courses specifically for Indigenous smokers

8.7 Quitlines

Advice given over the telephone about ceasing smoking may be useful for some smokers. A systematic review of the effectiveness of quitlines concluded that they can improve quit rates, when used as part of an anti-smoking campaign (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000). A Cochrane review of 23 trials of quitlines concluded that proactive telephone counselling can be effective compared to an intervention without personal contact, and that they can be a useful part of a smoking cessation service (Stead & Lancaster, 2001).

There are no quitlines established specifically for Indigenous people and there have been no studies that have assessed the effect of the use of quitlines by Indigenous people. However, in 1996 a working group on Aboriginal smoking, convened from the 2nd National Tobacco Control Summit, concluded that there was a need for a trial of a state or national telephone quit service for Indigenous people (Andrews et al., 1996a). The Tobacco Action Project in the Northern Territory recently reported their first Indigenous clients in a mainstream telephone quit smoking service (Castro, 2000).

When interviewed as part of the evaluation of the 1997-1998 National Tobacco Campaign, Indigenous Victorians gave mixed responses to a television advertisement featuring information about the Quitline. Many did not regard the service as personally relevant and disregarded the advertisement.

We don't need that sort of telephone service, because we have other things...we've got our resources for that already, the doctors (at the Aboriginal health service) with the chewies or the patches (NTC 1999, 252).

Table 25 Quality of evidence for quitlines

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Quitlines can help people to quit smoking	I & recommended in systematic review of public health interventions		Mainstream services may not be appropriate. A quitline specifically for Indigenous people may be more accessible.

8.8 Interventions aimed at passive smoking in the home

A systematic review of interventions aimed at reducing exposure to environmental tobacco smoke in the home concluded that they may be effective in protecting the health of children (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000).

There is little literature about interventions aimed at environmental smoke in the homes of Indigenous people and none that have been evaluated. One program (below) was aimed at reducing children's exposure to environmental smoke:

Victorian Indigenous Medical Service Child Health Program

The Child Health Promotion team of the Victorian Indigenous Medical Service developed a program to improve the health of children. One aim of the program was to reduce the number of children who were breathing in passive smoke (Thorpe, 1996, 118-9). The team assessed 128 children under the age of five years, and found that most of them were exposed to passive smoke. Younger children had higher levels of exposure than older children. They used information from the initial survey to develop a video and posters about passive smoking. The project also involved making wall hangings about passive smoking.

Table 26 Quality of evidence for educational interventions about passive smoking

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Educational interventions can reduce exposure to environmental smoke in the home	Recommended in systematic review of public health interventions	Expert opinion	Very appropriate for Indigenous people as a harm reduction measure given the high prevalence of smoking

8.9 Sponsorship of cultural, sporting and community events

Sponsorship of cultural, sporting and community events may have some effect in promoting the cessation of tobacco use, and in one pre- and post-study, increased the chance of having smoke-free sporting, motor racing and arts venues (Corti, Holman, Donovan, Frizzell, & Carroll, 1995).

Such promotion has been utilised in the delivery of health promotion services about tobacco to Indigenous people. For example, the Northern Territory Government's TAP has sponsored football and basketball tournaments (Castro, 1998).

Table 27 Quality of evidence for sponsorship promoting smoke-free venues

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Sponsorship of cultural, sporting and community events promotes smoke-free venues	IV	Expert opinion	Likely to be as effective for Indigenous people as for others

8.10 The effect of health promotion materials

The use of health promotion materials may have a small effect. A Cochrane review of the effect of 11 trials of printed health promotion materials on professional practice and health care outcomes concluded that the effects of printed educational materials, compared with no active intervention, appeared small and of uncertain clinical significance. These conclusions should be viewed as tentative due to the poor reporting of results and inappropriate primary analyses. The additional impact of more active interventions produced mixed results (Lancaster & Stead, 2001). The use of health promotion materials (such as pamphlets or flip charts), in conjunction with brief interventions on tobacco by health professionals, appears to have had some effect in some trials, although a Cochrane review of brief counselling on tobacco by doctors was not able to confirm this effect (Silagy & Ketteridge, 1998).

Paul and Redman (1997) assessed five reviews and 43 studies examining the effectiveness of printed material used for health education. Pamphlets and other printed material were potentially capable of changing knowledge, attitudes and behaviour. If used for patient education rather than public education, pamphlets were more likely to be effective if used in conjunction with other interventions, and were more likely to change knowledge and attitudes than behaviour.

Self-help materials distributed through Quitline services or in public places, may be useful for smokers who are unwilling to have contact with health professionals (Brown & Owen, 1992). A Cochrane review of 45 trials of self-help interventions for smoking cessation concluded that self-help materials may provide a small increase in quitting compared to no intervention. There was no evidence that they have an additional benefit over other minimal interventions such as advice from a health care professional or nicotine replacement therapy. There was evidence that materials tailored for individual smokers are more effective (Lancaster & Stead, 2001).

8.11 Health promotion and Indigenous Australians: some general issues

Health promotion materials for the general Australian population may not be suitable for Indigenous people, although there has been little evaluation of this.

While some resources about tobacco have been produced for Indigenous people (see Appendix 3), the effectiveness of the use of these health promotion materials has not been evaluated.

For many Indigenous people, English is a second language, and for many, a third, fourth or fifth language. Language must be taken into account when designing health promotion materials for Indigenous people. In the 1991 Census, 30% of Indigenous people spoke only English, 70% spoke an Indigenous language at home, and 33% spoke English 'not well' or 'not at all' (ABS 1994).

Some health promotion resources have presented health promotion messages in local languages. Some, but not all, Indigenous languages have been ascribed a written form, and Indigenous people may decide to start using literature in their own language, partly to preserve their own language, and for social action and education. The use of Indigenous languages may be an important way for Indigenous people to maintain traditions and to maintain a sense of identity (Gale, 1992).

Literacy levels of Indigenous people may be lower than in the general population. In the 1991 Census, about 80% of Indigenous people aged 15 years and over had no qualifications, compared

to 50% of the general population (ABS 1994). In a review of education for Indigenous people in the Northern Territory, only 36% of Indigenous children living in urban areas, and 11% of those in rural schools, reached national reading benchmarks for Year 5 students, compared to 78% of non-Indigenous children (Northern Territory Department of Education, 1999, 35).

As a response to this, some Indigenous health promotion materials have used visual media to present health messages. For example, some materials use videos, cartoons or pictograms to present health messages. Some health promotion materials from Central Australia have incorporated dot paintings. Some programs have even utilised body parts, for example preserved lungs, to demonstrate the health effects of tobacco. A health worker who was interviewed for a book of interviews with ex-drinkers commented on the effect of showing people real liver specimens to demonstrate the effect of alcohol abuse:

Well, a lot of people, they like to see something front of their natural eye. Because they cannot understand - when we try to educate our people pretty hard for them to believe sometimes. They would like to see something, that's from the very start, lots of things that in Indigenous way they used to do, they saw things with their own eye (Brady, 1995b, 113-4).

A review in 1996-1997 of the preferences of Indigenous health workers for health promotion materials analysed the quality of health promotion resources available to Indigenous communities. The first phase of the review consisted of an audit of the availability and appropriateness of existing health promotion materials on cardiovascular health. Fifty-two organisations were identified and contacted, and six resources were chosen for the audits: three focussed on Indigenous health and three were directed at a mainstream audience. The authors identified the level of schooling required to comprehend the promotional message contained in the pamphlet clearly. The different pamphlets required a level of schooling ranging from 6.8 years to 8 years. The authors also assessed whether the information about heart health was clearly presented: the mainstream pamphlets presented essential information clearly, and provided supplementary information; the culturally specific resource had the lowest reading level, but also had poor educational content (O'Connor, Parker, Micklejohn, Oldburg, & Alati, 1999, 21-2).

Health professionals who participated suggested a number of criteria for health promotion materials:

1. Involvement of the target community in the development of resources
2. Simplicity in presentation
3. Colourful illustrations and photographs depicting culturally appropriate images such as food, familiar faces in the community, and art
4. Use of culturally appropriate language and art
5. Resources that were specific to the community being targeted, not generic resources for all Indigenous people
6. Not to be too wordy, with use of simple, short, familiar words
7. Use of large, legible print
8. A reading age level appropriate to the target group (O'Connor et al., 1999, 22).

When interviewed as part of the evaluation of the 1997-1998 National Tobacco Campaign, older people and health workers believed that health promotion materials should be targeted at Indigenous people, and felt that this was the best method of targeting young Indigenous people. Young Indigenous people, however, disagreed. Some even said that it made no difference to them if resources were aimed at Indigenous people or at the general population. Young people, particularly those in urban areas, identified with youth culture rather than Indigenous culture (NTC 1999, 244). Health workers commented that health promotion materials should feature Indigenous role models such as sportspeople.

Other reports concur with some of these suggestions, although there are some different views about the use of celebrities. In the report on Indigenous smoking commissioned by the AMA (AMA & APMA 2000, 6, 74), the key features that were desirable in health promotion materials on tobacco for Indigenous people included the following:

- humour
- cartoons
- Aboriginal colours and drawings
- messages about the effect of tobacco on the family
- use of storytelling
- using everyday role models, not only famous role models such as Cathy Freeman. (Famous people were regarded as having such different lives that other Aboriginal people would have difficulty relating to them).

8.12 Specific health promotion media

Pamphlets

In the evaluation of the National Tobacco Campaign, Indigenous people believed that printed resources were of limited value; nonetheless during the interviews several participants were observed reading the resources during the focus groups, or taking them away. Apart from comments that printed materials needed to be targeted at Indigenous people, no obvious differences were noted in comparison with research findings in the general population (NTC 1999, 242-3). Participants interviewed for the AMA report on Indigenous people and smoking had mixed views about pamphlets.

There are numerous pamphlets about tobacco targeted at Indigenous people (see Appendix 3). However, there has been little, if any, evaluation of these resources.

Posters

There is little literature on the effect of posters on reducing tobacco use. In the evaluation of the National Tobacco Campaign among Indigenous people, posters were popular, particularly among health workers, who thought that information should be targeted at specific communities (NTC 1999, 242-3). Many posters about tobacco have been developed for Indigenous communities (see Appendix 3).

Flip charts

Flip charts have been used as part of some tobacco programs evaluated by RCTs, to help smokers to quit, resulting in significantly greater rates of quitting (Richmond et al., 1986; Wilson et al., 1990). They have also been used in several Indigenous health promotion programs, including the Strong Women, Strong Babies, Strong Culture program, which included advice to pregnant women on quitting (Fejo, 1994) and, as discussed previously, resulted in gains in babies' birthweights for women who had received the intervention (Mackerras, 1998). Flip charts have also been used in other Indigenous health promotion programs, including a diabetes education kit and an antenatal education kit.

The Pongi Pongi Book

The Tiwi Health Board, Bagot community and the NHF produced a kit of materials about tobacco. The kit included a flip chart, posters and pamphlets, and a training module for health staff working with Indigenous smokers (see Appendix 3).

Video

Video has been used in the delivery of many health promotion programs for Indigenous people. However there are no evaluated examples of the effect of video on helping people to quit smoking. There are a few videos about tobacco issues available for Indigenous people (see Appendix 3); however, none have been formally evaluated. Videos may be useful in an Indigenous setting because of a preference for visual media and they also permit the use of local languages.

In a series of interviews as part of an evaluation of a policy for a new smoke-free area in Brisbane, several participants discussed the use of health videos shown while people were waiting to be seen by health staff. One view was that video may not always be a practical way to present health messages:

But there are videos and I think as staff we have to take responsibility for putting it on, that has been discussed several times, because there are heaps of videos, people just couldn't be bothered putting them on (Seibold, 2000, 23).

Storytelling and other traditional methods

Storytelling is a traditional way of passing on knowledge among many Indigenous people. Traditional communities had no written traditions but instead used oral methods of teaching to reinforce cultural beliefs and appropriate behaviour. Newman et al (1999) discussed the use of storytelling as a method of educating Aboriginal women about cervical cancer and cardiovascular disease. The authors identified a number of crucial aspects of passing on knowledge in this way - the sharing of knowledge; allowing time for trust to develop; ensuring that people of appropriate status have control; and ensuring that relevant language and communication techniques were used. They emphasised an holistic approach to health as being paramount and identified a number of specific features desirable in health promotion strategies. These included: identification as Indigenous people; acknowledgment of the role that loss of land and culture has played; and acknowledgment of the strength of family relationships.

The Lung Story project in Central Australia also utilised storytelling as a key component of a tobacco intervention (Gill, 1999). In a less traditional manner, many health promotion programs on tobacco have used workshops, seminars or talks with community groups as a way of presenting information on tobacco (AMA & APMA 2000, 53; Castro, 1998).

Other traditional techniques that may be used in health promotion programs include dance, song and traditional art. Dance, traditional music and rock songs using traditional language have also been used to give information on the health risks of tobacco. For example, the Saltwater Band composed a song about the hazards of tobacco and performed it as part of a health promotion campaign at Elcho Island (Castro, 2000). Traditional art has also been utilised in many health promotion programs. The Lung Story, for example, uses dot paintings to demonstrate the health effects of tobacco (Gill, 1999).

Other types of health promotion materials

Some tobacco programs for Indigenous people have incorporated other forms of health promotion material showing quit messages. These have included T-shirts, stickers, CD-ROMs, banners, feltboards, football cards and water bottles (Castro, 2000) (see Appendix 3).

8.13 Tobacco education in general health promotion programs

A number health promotion programs for Indigenous people focus on general health education and specific health issues such as alcohol, exercise and nutrition. Some health promotion projects about cardiovascular disease have incorporated quit messages. General 'Well Women' and 'Well Men' programs often involved holistic preventive health checks for adults.

The Gapuwiyak Men's Health Project

The Gapuwiyak Men's Clinic in Arnhem Land ran men's health programs that included talking to men about smoking and showing them videos about smoking (Guyula, 1998). This was predominantly done outside the health centre, and was focussed around football club activities.

Some general health promotion programs are delivered in the community, away from the health centre, to provide a holistic, health-oriented focus rather than a disease-oriented focus. Some of these projects were delivered by Indigenous people who are not health workers. For example the *Tiwi for Life Project* on the Tiwi Islands to the north of Darwin, employs community workers (who are not AHWs) to educate people out in the community about the effects of tobacco (Tiwi Health Board, 1999). Such programs may also involve community development, including strengthening of the community, skill development and education and training. No such programs have been evaluated for their effect on tobacco use.

Table 28 Quality of evidence for specific health promotion media

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Using pamphlets with advice about quitting smoking reduces the prevalence of tobacco use	I	Expert opinion	May be less effective for Indigenous people if pamphlets are difficult to read or not targeted at Indigenous people
Using posters reduces the prevalence of tobacco use	May be effective as part of a general media campaign	Expert opinion L	Little evidence for effectiveness, except as part of mass media campaigns for Indigenous people and others; however posters have been used extensively by Indigenous people
Using flip charts with advice on quitting smoking reduces the prevalence of smoking	II	One intervention; low quality data on tobacco exposure	Likely to be more effective if targeted at Indigenous people
Using videos about tobacco reduces the prevalence of tobacco use		Expert opinion	No evidence of effectiveness, but videos featuring Indigenous role models may be more effective than other health promotion materials due to a preference for visual media
Using storytelling, dancing or traditional art reduces the prevalence of smoking		Expert opinion	Anecdotal evidence that this may be a valid traditional method of passing on information

8.14 Summary

- It is unclear whether generalised community campaigns about tobacco (including media campaigns, smoking bans, education of health professionals) decrease the prevalence of tobacco use, although there is some evidence that they are effective in reducing uptake of tobacco use in young people. General community interventions have not been evaluated in Indigenous communities.
- Media campaigns could result in a small reduction in the prevalence of smoking and may be effective in preventing uptake among young people. In one significant campaign evaluation there were no differences between the findings for Indigenous people and the general population, in terms of either awareness or recall of messages from anti-smoking advertisements. Some Indigenous people have said that they would prefer a campaign designed specifically for Indigenous people. They also believe that Indigenous tobacco programs need to be locally based and include local content, that they should involve elders and significant community members in their design and delivery, and that they must have a broad community focus.
- School education programs and mass media campaigns can reduce uptake of tobacco use among young people. There are several school education programs that have been developed for Indigenous children and adolescents, but none have been adequately evaluated.
- There is evidence from other populations that workplace interventions can reduce exposure to environmental tobacco smoke and may reduce the prevalence of tobacco use. While no workplace tobacco interventions have been evaluated in Indigenous communities, it is likely that they would be similarly effective for Indigenous working people.
- Quit courses or support groups are better than self-help and other less intensive interventions, but mainstream quit courses may be relatively inaccessible for Indigenous people. A quit group specifically for Indigenous people may be more likely to help them quit, but there have been no evaluations of such quit courses or support groups.
- Quitlines can improve quit rates, when used as part of an anti-smoking campaign. Indigenous people may find mainstream quitlines to be relatively inaccessible, and there are no quitlines established specifically for Indigenous people. Indigenous people's use of quitlines has not been evaluated.
- Passive smoking. Interventions aimed at reducing exposure to environmental smoke in the home may be effective in protecting the health of children. There are only a few such programs aimed at Indigenous people, and none of these have been evaluated. However they are likely to be an important intervention due to Indigenous people's greater exposure to environmental tobacco smoke.
- Sponsorship of cultural, sporting and community events. Events that are smoke-free are effective in reducing exposure to environmental tobacco smoke and may promote a quit message. Such promotional activities have been used in Indigenous tobacco programs, but there is little clear evidence of their effect.
- There is evidence from other populations that the use of health promotion materials, including self-help materials, can help smokers to quit. There is little evidence about the efficacy of specific health promotion media with Indigenous people, although posters, pamphlets and flip charts are commonly used. Indigenous people are likely to prefer materials that are targeted at an Indigenous audience, that use visual media or are easy to read and colourful, and include pictures of local or well-known Indigenous people. Indigenous tobacco programs have used a variety of materials including posters, videos, pamphlets, flip charts, feltboards, CD-ROM, stickers and T-shirts.
- Traditional art, song, dance and storytelling have also been used to convey messages about tobacco use. However only one brief intervention has been evaluated.

9. Legislative interventions

This chapter describes a range of legal measures and potentialities for controlling tobacco, and reviews any evaluations of such interventions. In particular, it examines advertising and promotion, packaging, pricing and taxing, smoke-free-areas and sales to minors. It covers both international and Australian data and where possible examines and speculates about the effects of such measures in Australian Indigenous contexts.

9.1 Control of tobacco advertising and promotion

The advertising of tobacco products is likely to increase the prevalence of tobacco use. A systematic review of the effect of advertising and promotion of tobacco products concluded that control of advertising is an effective intervention when combined with interventions aimed at individuals to reduce tobacco consumption. However, a total ban on all forms of tobacco promotion is needed if bans are to be successful (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000).

In 1992 the Australian government voted to phase out tobacco advertising and sponsorship throughout the country (Roemer, 1993, 32) and in August 2000 voted to fully phase out exceptions from bans on tobacco advertising, including the sponsorship of sport by tobacco companies. Restrictions on the advertising of tobacco products in Australia have probably successfully contributed to the overall drop in the prevalence of tobacco use. However, some tobacco advertising - such as point of sale advertising, and tobacco promotions (for example, 'give-away' items such as T-shirts) - is still permitted in some Australian states and territories (including the Northern Territory, which has a high proportion of Indigenous people).

There has been no evaluation of the effect on Indigenous people of restrictions on tobacco advertising. It may be possible for Indigenous community councils to develop policy for further restrictions specifically for people in their community. For example, community stores in Indigenous communities could potentially choose not to allow tobacco promotional material - such as 'give-aways' - in their community and could choose to limit or remove point of sale advertising.

Table 29 Quality of evidence for controls on tobacco advertising and promotion

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Reduction of tobacco advertising and promotions reduces tobacco use	Recommended in systematic review of public health interventions		Restrictions on advertising, point of sale advertising and promotions are likely to affect Indigenous people as much as other Australians

9.2 Control of tobacco packaging

A report published by the World Health Organisation on legislative change to combat the tobacco epidemic, discussed the use of health warnings on tobacco products (Roemer, 1993,159). Visual tobacco warnings on tobacco packaging (rather than written warnings) and generic packaging may be effective in reducing tobacco use, although these have not yet been evaluated. It is also likely that the effect of tobacco warnings may decline over time and that rotating or changing warnings may be more useful than the repeated use of the same warnings.

Health warnings are uniformly enforced throughout Australia, and were instituted in 1995. An evaluation of the effect of the new advertising, which compared knowledge and beliefs before and after the intervention, showed that smokers displayed an increase in knowledge about the contents of tobacco smoke, and reduced their consumption after the introduction of warnings (Borland & Hill, 1997).

There has been no evaluation of the effect of packaging and health warnings on Indigenous people. Literacy rates among Indigenous people may be lower than in the general Australian population, and this may mean that written messages may not be accessible to some Indigenous smokers. It is likely, however, that some Indigenous people are influenced by health warnings on packaging. In her series of interviews with Indigenous people who had given up alcohol, Brady found that one participant had been influenced by health warnings on tobacco packaging (Brady, 1995b, 109). Restricting the sale of cigarettes to large packets (for example, packets of 20 or more) may reduce smoking among people with limited amounts of money, including children and people on low incomes for whom smaller packets or single cigarettes are more affordable. Some states and territories restrict sales to packets of 20 or more cigarettes, whereas Northern Territory laws, for example, allow individual packaging of cigarettes as long as they are sold with a health warning. For example, a health promotion officer working in a remote Indigenous community noticed a store worker selling individual cigarettes (packaged one per packet) to Indigenous smokers, for one dollar each cigarette (Castro, 2000). Indigenous community stores could potentially choose to restrict sales of cigarettes to larger packets of cigarettes, even where the state or territory legislation does not require this.

Restricting sales of tobacco products in vending machines reduces access and may be especially useful for restricting sales to minors. To avoid surveillance aimed at preventing the illegal sale of cigarettes, minors are especially likely to access vending machines rather than try to make over-the-counter purchases. However, a systematic review of interventions to restrict access to vending machines showed that while such access was reduced, smoking behaviour was not, in fact, affected (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000). Education campaigns alone are likely to have little effect in preventing illegal sales through vending machines (DiFranza, Savageau, & Aisquith, 1996).

Some, but not all, states and territories in Australia have legislation which bans the use of vending machines for the sale of tobacco products or restricts them to licensed premises. There is little evidence on the use of vending machines in Indigenous communities. Nevertheless, Indigenous communities could potentially stop sales through vending machines - for example, if the store is community-owned, the community could choose not to have vending machines, even if the law in their jurisdiction allows sales through vending machines.

Table 30 Quality of evidence for controls on tobacco packaging and vending machine sales

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Placing strong health warnings about the health effects of tobacco on tobacco packaging increases knowledge about the health effects of smoking and reduces tobacco consumption	III-3		Written messages possibly less effective for Indigenous people, as literacy levels may be lower than in the general population, however visual warnings likely to be effective
Restricting sales of cigarettes to packets of 20 or more cigarettes may reduce smoking in some groups, such as low income groups	Expert opinion		May be more effective for Indigenous people, as many are on a low income, and likely to be especially effective for children
Restricting or banning sales of tobacco products through vending machines reduces access to tobacco products	Recommended in systematic review of public health interventions		Likely to be as effective for Indigenous people as for non-Indigenous people

9.3 Tobacco pricing

Increases in the price of tobacco products (at point of sale, or through taxation) may decrease the prevalence of tobacco use. A systematic review of the effect of taxation and increased pricing of tobacco concluded that higher tobacco prices can reduce tobacco consumption, with a greater effect for women and young people. Among poorer people, an increased price resulted in significant hardship if they did not reduce their consumption (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000).

A price rise of 10% produces a decrease in consumption of about 4-8% (Chollat-Traquet, 1996, 46; Manley et al., 1997). Approximately two-thirds of this decrease is from people choosing not to smoke and the remaining one-third is due to decreases in consumption by those who continue to smoke (Manley et al., 1997).

In 1981 a small survey in Papua New Guinea found smoking rates of 85% among men in coastal areas and 80% among women in highland areas (similar to smoking rates in some Indigenous communities in Australia). Results of a study in Papua New Guinea on the effects of taxation on tobacco products over the period 1973-1986 showed that a 10% increase in tobacco excise was associated with a 7% fall in demand for cigarettes and a 5% fall in demand for tobacco. In developing countries a price change as a result of taxation changes is likely to have an impact on the consumption of tobacco products, as many people live on subsistence incomes (Chapman & Richardson, 1990).

The effects of recent taxation changes on tobacco in Australia have not yet been evaluated. In November 1999 a 'per stick' tobacco excise system was introduced to replace the previous weight-based system, resulting in an increase in the price of tobacco products. A Goods and Services Tax of 10% was introduced in July 2000, which also increased the price of tobacco products.

In a study of the impact of anti-smoking policies on tobacco consumption in Australia, Bardsley & Olekalns (1999) assessed the effect on tobacco consumption of price (including tax), income, demographics, tobacco industry advertising, anti-tobacco advertising and education, workplace smoking bans, tobacco advertising bans and health warnings on cigarette packs. They concluded that virtually all of the reduction in tobacco consumption over the last 35 years has been due to taxes. The effect of other interventions has been relatively small. Tobacco company advertising had a limited effect on increasing consumption, and advertising bans also had a limited effect on reducing consumption. Workplace smoking bans and warnings on cigarette packs have both had a small but significant effect on reducing consumption of tobacco. Anti-smoking campaigns and education appeared to have no significant effect on tobacco consumption (Bardsley & Olekalns, 1999). However Borland (1999) commented that no clear conclusions could be drawn from this paper because of inconsistencies in data collection.

Little is known about the effect of changes in the price of tobacco on patterns of tobacco use by Indigenous people, although tobacco use may be associated with the amount of disposable income. For example, in the study by Gilchrist, (1998) Indigenous women said that when they did not have money, they did not smoke. Indigenous Australians are more likely than other Australians to be on restricted incomes (eg. welfare benefits) and it is possible that this may make them more vulnerable than other Australian smokers to changes in the price of tobacco. They may, for example, reduce their expenditure on food.

Changes to food supply in Indigenous communities have made real changes to nutrition for Indigenous people (Lee et al., 1994). Store managers may wield significant power in remote Indigenous communities and may have the capacity to determine the availability and price of tobacco, as well as food. There is potential for policies on the supply of tobacco products to be used as a way of reducing tobacco use in remote communities where there are limited retail outlets, especially where community stores are community controlled. Such policies would be difficult to implement in urban or regional areas.

Arnhemland Progress Association

The Arnhemland Progress Association developed a policy on nutrition that assessed consumer demand, stock management, carrying capacity, deliveries, staff education, nutrition education, capital city pricing and freight charges. The board of directors expressed concern about the high prevalence of cigarette smoking and the high prices of fruit and vegetables. The directors moved to introduce a 50% subsidy on the freight cost for fruit and vegetables to be funded through an increase in the price of cigarettes (McMillan, 1991).

Table 31 Quality of evidence for tobacco pricing controls

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Increasing price of tobacco products (for example, through taxation) decreases consumption of tobacco	III-3 & recommended in systematic review of public health interventions		Likely to have more effect than for the general Australian population because Indigenous people are more likely to be on a low income, but may cause hardship if smokers do not reduce consumption

9.4 Smoke-free public places

The risks of environmental tobacco smoke on the health of other people have been well documented. The authors of a Cochrane review of interventions for preventing tobacco smoking in public places examined 11 uncontrolled before and after studies. Comprehensive, multi-component approaches included the banning of smoking within institutions, the production of posters and educational material, and prompts to individual smokers. Carefully planned and resourced multi-component interventions were the most effective in reducing smoking in public places (Serra, Cabezas, Bonfill, & Pladevall-Vila, 2000).

Legislation restricting smoking inside public places is not uniform across states and territories in Australia, and the effect of smoke-free areas legislation for Indigenous people is not known.

Policies on banning smoking in mainstream organisations may have had some effect on reducing tobacco use by some Indigenous people or encouraging them to quit. In a review of Indigenous ex-smokers, four out of 16 Indigenous ex-smokers in Darwin gave up because of restrictions on smoking in their workplace (Danila Dilba Medical Service, 1999). However, in areas where Indigenous unemployment rates are high, this may not be an effective intervention. Some ex-smokers in the Danila Dilba review also commented that bans in restaurants in other states and on public transport had helped them to quit.

Some Indigenous organisations have introduced workplace bans on smoking. For example, as part of the Indigenous Tobacco Control Project run by Queensland Health, a smoke-free policy was introduced at the Aboriginal and Islander Community Health Service. The policy was evaluated by discussing the issue in focus groups. In general, staff were supportive of the policy and thought that preventing passive smoking was an important issue. Some staff even commented that making a smoke-free work area reminded them to smoke outside at home. Some staff, however, felt that they were being pressured unnecessarily (Seibold, 2000, 8-16).

Milikapiti goes smoke-free

In 1999 Milikapiti Council, at Milikapiti on the Tiwi Islands in the Northern Territory, introduced a smoke-free rule for offices and public areas in their community. A local artist designed 'smoke-free' stickers, to place on the doors of public buildings, and several large signs to put around the community alerting everyone that the buildings were now smoke-free (Castro, 2000).

Indigenous people are about as likely as non-Indigenous people to support tobacco-related policy initiatives such as enforcing laws on sales of cigarettes to minors, or banning smoking in workplaces (AIHW 1996).

Table 32 Quality of evidence for smoke free public places

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Restricting smoking in public places reduces exposure to environmental tobacco smoke	I	IV	Likely to affect Indigenous people as much as non-Indigenous people. Workplace bans may be less effective at a population level if many people are unemployed or work predominantly outside

9.5 Sales to minors

Restricting sales to minors may reduce access to tobacco, but does not necessarily prevent uptake of tobacco use. The authors of a systematic review, and a Cochrane review of interventions aimed at reducing sales to minors, concluded that active enforcement of legislation and mobilising community support reduced the prevalence of illegal sales to minors. But they also found that there was little evidence that they reduced the prevalence of tobacco use among young people. In addition, the reduction in sales to minors was not sustained (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000; Stead & Lancaster, 2000b). Educational interventions for store owners or consumers were less effective than legislation combined with education and enforcement.

Other interventions have been used by some states and territories in Australia to further enforce the prevention of sales to minors. Such interventions have included the licensing of tobacco retailers - with fines, infringement notices or other penalties for breaches, including the removal of the licence to sell tobacco.

There are no published accounts of the effect of enforcing restrictions on sales to Indigenous minors. However, education or enforcement campaigns for store managers and workers in areas with a high Indigenous population could be considered.

Table 33 Quality of evidence for restricting tobacco sales to minors

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Active reinforcement of laws aimed at preventing sales to minors reduces illegal sales to minors in the short term	I		Likely to be as effective for Indigenous minors as it is for other minors

9.6 Restricting the availability of tobacco

Changes to local government by-laws have been used as part of alcohol control programs in Indigenous communities. Through negotiation with the government liquor commission, some local governments in the Northern Territory have opted to become 'dry' communities for alcohol.

A community-based smoking cessation program in a village in Fiji utilised both Western smoking cessation techniques and native traditional rituals, together with a ban on tobacco use. Nine months after the intervention, smoking was almost non-existent in the village (Groth-Marnat et al., 1996).

Changes to local by-laws could potentially be used as part of tobacco control programs in Australian Indigenous communities. However, no trials on restricting the use of tobacco through changes to local by-laws have been carried out in any community in Australia.

Table 34 Quality of evidence for community-wide smoking bans

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous people	Comment on whether evidence in other populations is likely to be applicable to Indigenous people
Introducing community-wide smoking bans reduces smoking	IV		Variable effect when by-laws were used in communities to ban alcohol

9.7 Summary

- Control of advertising and promotion of tobacco products reduces consumption. The effect of tobacco advertising restrictions has not been evaluated for Indigenous people; however it is likely to reduce consumption. Some communities may be able to limit advertising and promotion locally.
- Control of tobacco packaging. Health warnings may be effective in reducing tobacco use, but their effect has not been evaluated for Indigenous people; written warnings may be less useful for Indigenous people with low literacy skills. Restricting sales of cigarettes to larger packs and banning sales through vending machines may reduce access to tobacco, especially by minors, but have not been evaluated in Indigenous settings. Some Indigenous communities could potentially choose to restrict sales to larger packs and to ban the use of vending machines.
- Increases in price of tobacco products reduce consumption in other populations. While the effect of taxation and pricing changes has not been evaluated for Indigenous people, there is a similar potential for a decrease in consumption. Increases in price of tobacco products may, however, result in hardship for smokers who do not reduce their consumption of tobacco, but may, for example, reduce expenditure on food.
- Interventions aimed at producing smoke-free public places are effective in reducing exposure to environmental tobacco smoke. The effect of smoke-free areas legislation for Indigenous people is not known, however. Policies on banning smoking in mainstream organisations may have had some effect on reducing tobacco use by some Indigenous people or in encouraging them to quit.
- Restricting sales to minors may reduce access to tobacco, but does not necessarily prevent uptake of tobacco use. There are no published accounts of the effect of enforcing restrictions on sales to Indigenous minors; however such programs are likely to have a similar effect to that in other populations.
- Restricting the availability of tobacco through local by-laws has been tried successfully in an indigenous community overseas. By-laws relating to tobacco have not as yet been tried in Australian Indigenous communities, although comparable controls have been adopted by some communities for alcohol.

10. Conclusions

10.1 Future options for program delivery

This literature review has addressed the evidence for the effectiveness of tobacco interventions in Indigenous and other populations. Because of the lack of research and evaluation of interventions among Australian Indigenous people, decisions on future program delivery may require consideration of the applicability of evidence from other populations to the local context.

Indigenous people or organisations may then need to weigh up the evidence along with other considerations. For example, they will need to factor in their perceptions of whether such an intervention is desired or acceptable in their community; the cost-effectiveness of the intervention; and the practicality of delivering the intervention.

Tobacco interventions can be classified into several categories, according to evidence of their effect in other populations, in Indigenous Australian populations and their applicability to Indigenous Australians, as represented in the following table:

Table 35 Applicability of tobacco interventions for Indigenous Australians

Rating	Applicability to Indigenous Australians
A	Good evidence of effectiveness in other populations and in Indigenous populations
B	Good evidence in other populations and no specific evidence in Indigenous populations, but no reason to believe that the intervention would be less effective for Indigenous populations
C	Good evidence in other populations and no specific evidence in Indigenous populations, but reason to believe that the intervention would be less effective for Indigenous populations
D	Limited evidence in other populations and in Indigenous populations
E	No evidence of effectiveness in other populations or in Indigenous populations

The classification system shown in Table 35, above, has been used to classify and rate a range of possible tobacco interventions for implementation with Indigenous Australians. This information is summarised below in Table 36. The high number of B ratings is a striking feature of this data. Of the 29 interventions, there is good evidence from other populations for 21 of them, and no reason to believe that they would be less effective for Indigenous Australian populations.

Table 36. Tobacco interventions for Indigenous people in Australia

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous Australians	Comment on whether evidence in other populations is likely to be applicable to Indigenous Australians	Rating for applicability to Indigenous Australians
Brief interventions	I	Expert opinion	Likely to be as effective for Indigenous people. Effect of advice given by AHWs is not known.	B
NRT	I	IV	NRT is likely to have the same physical effect as for other populations, but may not be accessible to Indigenous people because of cost	C
Bupropion	I		Likely to have a similar effect for Indigenous Australians. Bupropion is probably more accessible than NRT as it is available on the PBS.	B
Training health professionals in giving brief interventions	I	Expert opinion	As for other populations, likely to have a small but significant effect	B
Support for health professionals who smoke to quit	III-2 level evidence that health professionals who smoke are less likely than non-smokers to advise smokers to quit	Expert opinion	Likely to be appropriate for health professionals working with Indigenous people. Supporting health professionals to quit is especially relevant because of the high prevalence of tobacco use among health professionals working with Indigenous people.	B
Advising pregnant women to quit	I & recommended in systematic review of public health interventions	One intervention; low quality data on tobacco exposure	Interventions likely to show a benefit in Indigenous populations. Giving advice on quitting is important because of the high prevalence of smoking in pregnant Indigenous women.	B
Advising hospital inpatients to quit	I		Likely to also show a benefit in Indigenous populations	B
Large community interventions	Results unclear		Interventions may be more effective because of relative lack of exposure to quit campaigns	D
Media campaigns	III-3 & recommended in systematic review of public health interventions	IV	May be less effective if Indigenous people feel the media campaign is not about them. Targeted media campaigns are more likely to be effective.	B
School-based education programs	I & recommended in systematic review of public health interventions	IV	Likely to be effective for Indigenous adolescents, especially if targeted specifically at them	B
Community interventions for young people	I		Likely to be effective for Indigenous adolescents, especially if targeted specifically at them	B
Workplace tobacco programs	I & recommended in systematic review of public health interventions		Interventions are likely to be effective for employed Indigenous people	B
Quit courses	I		Probably useful for Indigenous people, particularly quit courses specifically for Indigenous smokers	B

Table 36 continued

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous Australians	Comment on whether evidence in other populations is likely to be applicable to Indigenous Australians	Rating for applicability to Indigenous Australians
Quitlines	I & recommended in systematic review of public health interventions		Mainstream services may not be appropriate. A quitline specifically for Indigenous people may be more accessible.	B
Educational interventions on exposure to environmental smoke in the home	Recommended in systematic review of public health interventions	Expert opinion	Very appropriate for Indigenous people as a harm reduction measure given the high prevalence of smoking	B
Sponsorship of cultural, sporting and community events	IV	Expert opinion	Likely to be as effective for Indigenous people as for others	D
Pamphlets	I	Expert opinion	May be less effective for Indigenous people if pamphlets are difficult to read or not targeted at Indigenous people	B
Posters	May be effective as part of a general media campaign	Expert opinion	Little evidence for effectiveness, except as part of mass media campaigns for Indigenous people and others. However posters have been used extensively by Indigenous people	D
Flip charts	II	One intervention; low quality data on tobacco exposure	Likely to be more effective if targeted at Indigenous people	B
Videos		Expert opinion	No evidence of effectiveness, but videos featuring Indigenous role models may be more effective than other health promotion materials due to a preference for visual media	E
Storytelling, dancing or traditional art		Expert opinion	Anecdotal evidence that this may be a valid traditional method of passing on information	E
Reduction of tobacco advertising and promotions	Recommended in systematic review of public health interventions		Restrictions on advertising, point of sale advertising and promotions are likely to affect Indigenous people as much as other Australians	B
Placing strong health warnings about the health effects of tobacco on tobacco packaging	III-3		Written messages possibly less effective for Indigenous people, as literacy levels may be lower than in the general population. However visual warnings likely to be effective.	B
Restricting sales of cigarettes to packets of 20 or more cigarettes	Expert opinion		May be more effective for Indigenous people, as many are on a low income, and likely to be especially effective for children	B
Restricting or banning sales of tobacco products through vending	Recommended in systematic review of public health interventions		Likely to be as effective for Indigenous people as for non-Indigenous people	B

Table 36 continued

Intervention	Quality of evidence (NHMRC 1999a, 63)	Quality of evidence specifically for Indigenous Australians	Comment on whether evidence in other populations is likely to be applicable to Indigenous Australians	Rating for applicability to Indigenous Australians
Increasing price of tobacco products	III-3 & recommended in systematic review of public health interventions		Likely to have more effect than for the general Australian population because Indigenous people are more likely to be on a low income, but may cause hardship if smokers do not reduce consumption	C
Restricting smoking in public places	I	IV	Likely to affect Indigenous people as much as non-Indigenous people. Workplace bans may be less effective at a population level if many people are unemployed or work predominantly outside	B
Reinforcement of laws aimed at preventing sales to minors	I		Likely to be as effective for Indigenous minors as it is for other minors	B
Community-wide smoking bans	IV		Variable effect when by-laws used in communities to ban alcohol	E

10.2 Recommendations for future research

This review has revealed an almost complete lack of research and evaluation in the area of tobacco control measures for Australian Indigenous people.

The following topics could be considered for future research:

1. A study of the epidemiology of tobacco use and tobacco-related health disorders among Indigenous people.
2. Investigation of why Indigenous people use tobacco, including the sociology of tobacco use among Indigenous people, and an exploration of the cultural aspects of smoking. This could incorporate an exploration of the history of tobacco use among Indigenous people.
3. Investigation of why Indigenous ex-smokers quit, and why Indigenous people who have never smoked did not take up smoking.
4. Trial of a brief tobacco intervention for use by health staff working with Indigenous people.
5. A trial of NRT and/or Bupropion by Indigenous people.
6. Trial of a training package on interventions for health professionals working with Indigenous people exposed to tobacco.
7. Evaluation of a quit support program for health staff who smoke and work with Indigenous people.
8. Further evaluation of tobacco interventions for pregnant Indigenous women and their partners and families.
9. Evaluation of a hospital-based quit service for Indigenous smokers.
10. Ongoing evaluation of the impact of mainstream anti-smoking advertising on Indigenous people and of advertising targeted at Indigenous people.
11. Evaluation of school education packages on tobacco for Indigenous children and adolescents.
12. Trial of a workplace-based tobacco intervention for Indigenous people.
13. Trial of a quit course specifically for Indigenous people.
14. Trial of quitline use by Indigenous people, and possibly of a quitline specifically for Indigenous people.
15. Evaluation of interventions that reduce the exposure of Indigenous children and adolescents to tobacco smoke.
16. Evaluation of health promotion materials on tobacco targeted at Indigenous people.
17. Evaluation of the effect of holistic health programs for Indigenous people on the prevalence of tobacco use.
18. Evaluation of the effect of increases in the price of tobacco products for Indigenous people, in particular evaluation of the effect on families' food consumption.
19. Evaluation of the effect of other tobacco legislation on Indigenous people.

20. Research among TSI people: research on smoking behaviour, attitudes and knowledge among TSI people, and interventions specific to TSI people.

10.3 Conclusion

There is compelling data on the prevalence of tobacco use among Indigenous people, and on the prevalence of health conditions that are potentially related to tobacco. There is less clear data specifically on the link between tobacco use and these health conditions among Indigenous people.

There is an abundance of literature on the effectiveness of a range of tobacco interventions in other populations, including evidence on interventions in primary care, community and legislative interventions. Much of the evidence for tobacco interventions in primary care and in the community is of high quality according to the NHMRC rating system for evidence. Other public health-oriented tobacco interventions, such as legislative interventions and media campaigns, have also been recommended by systematic reviews of the evidence.

However, only three tobacco interventions have been formally evaluated in Indigenous communities, with only one being able to conclusively show a positive effect.

This audit of tobacco programs for Indigenous people reveals that numerous small programs have been conducted, especially in the area of health promotion (in particular, development of health promotion materials). Many of these programs appear to have been innovative, but few have been evaluated.

An emphatic conclusion is that there is a major lack of research and evaluation of tobacco interventions in Indigenous Australian contexts. Nonetheless, it is possible to extrapolate from interventions that have been effective for other populations. However, more research or evaluation is required to ensure that such interventions are effective for Indigenous people.

Despite this lack of conclusive data about effective interventions, there is no doubt that the prevalence of tobacco use and the high rate of mortality and morbidity attributable to tobacco among Indigenous Australians, constitute a serious health problem. The evidence indicates a definite need for effective interventions to reduce the prevalence of tobacco use and to reduce exposure to environmental smoke in this population.

The challenge for health professionals will be to work with Indigenous communities to devise ethical, culturally appropriate and effective interventions. In the words of Ian Anderson (quoted more fully in Chapter 7) it is important that:

...programmes are structured in such a way as to allow Indigenous people to engage with the possibilities, have the necessary resources to make changes, and to be convinced that the changes will enhance their lives (1994).



11. Bibliography

- Alessandri, L. M., Read, A. W., Burton, P. B., & Stanley, F. J. (1996). 'Sudden infant death syndrome in Australian Aboriginal and non-Aboriginal infants: an analytical comparison'. *Paediatr Perinat Epidemiol*, 10 , 309-18.
- Altman, J. (1987). *Hunter-Gatherers Today*. Canberra: Australian Institute of Aboriginal Studies.
- Anderson, I. (1994). 'Powers of health'. *Arena*, June-July , 32-6.
- Anderson, P., Bhatia, K., & Cunningham, J. (1996). *Mortality of Indigenous Australians 1994* (Occasional paper Cat. No. 3315.0). Canberra: Australian Bureau of Statistics.
- Andrews, B., Briggs, V., Walley, C., Greenland, R., Purcell, K., Swanson, M., Wood, L., & Walker, N. (1996a). 'Aboriginal smoking: Recommendations to 'Health Australia' from the 1995 Tobacco Control Summit Working Group'. *Aboriginal and Islander Health Worker Journal*, 20 (5), 23-5.
- Andrews, B., Oates, F., & Naden, P. (1997). 'Smoking among Aboriginal health workers: findings of a 1995 survey in western New South Wales'. *Aust N Z J Public Health*, 21 (7), 789-91.
- Andrews, B., Ralph, D., Undy, L., Oates, F., & Naden, P. (1996b, February 4-7). Aboriginal youth smoking behaviour, attitudes and knowledge: the results of a 1995 western NSW survey. Paper presented at the 8th National Health Promotion Conference, Sydney.
- Andrews, B., & Stephenson, J. (1993). *Smoking and health report* . Dubbo: Health Promotion Unit, Dubbo.
- Anonymous. (1984). 'Pituri, an Aboriginal drug'. *The Aboriginal Health Worker*, 8 (2), 7-8.
- Anonymous. (1990). 'Recommendations from the workshop 'Preventing smoking-related diseases among Aboriginals''. *Aboriginal Health Information Bulletin*, 14 , 14-5.
- Armstrong, M. (1979). *Aboriginal hospital morbidity in NSW, 1977* (Working paper No. 1). Sydney: Health Commission of NSW.
- Arnold-Reed, D. E., Holman, C. D., Codde, J., & Unwin, E. (1998). 'Effects of smoking and unsafe alcohol consumption on aboriginal life expectancy [letter]'. *Med J Aust*, 168 (2), 95.
- Asthma Foundation, N. (1997a). *Health living - smoking and your family* [Video]. Darwin: Asthma Foundation, NT.
- Asthma Foundation, N. (1997b). *Smoking and your family* . Darwin: Asthma Foundation, NT.
- Austin, T. (1992). *Simply the survival of the fittest - Aboriginal administration in South Australia's Northern Territory 1863-1910*. Darwin: Historical Society of the Northern Territory.
- Australian Bureau of Statistics. (1986). *Alcohol, tobacco and analgesic consumption, Northern Territory* (Cat. No. 4301.7). Canberra: Australian Bureau of Statistics.
- Australian Bureau of Statistics. (1990). *Alcohol and tobacco consumption in Darwin 1990*. Darwin: Australian Bureau of Statistics.
- Australian Bureau of Statistics. (1994). *Northern Territory's Indigenous People - 1991 Census of Population and Housing*. Darwin: Australian Bureau of Statistics.
- Australian Bureau of Statistics. (1996). *National Aboriginal and Torres Strait Islander Survey 1994: Health of Indigenous Australians* (Cat. No. 4395.0). Canberra: Australian Bureau of Statistics.
- Australian Bureau of Statistics. (1997a). *1994 National Aboriginal and Torres Strait Islander Survey: Social Atlas* (Cat. No. 4155.0). Canberra: Australian Bureau of Statistics.

- Australian Bureau of Statistics. (1997b). *National Health Survey 1995* (Cat. No. 4368.0). Canberra: Australian Bureau of Statistics.
- Australian Bureau of Statistics. (1997c). *Population distribution, Indigenous Australians*. Canberra: Australian Bureau of Statistics.
- Australian Bureau of Statistics. (1998). *1996 Census of Population and Housing - Aboriginal and Torres Strait Islander People*. Canberra: Australian Bureau of Statistics.
- Australian Institute of Health and Welfare. (1994). *National Drug Strategy Household Survey: Urban Aboriginal and Torres Strait Islander Peoples Supplement 1994*. Canberra: Australian Institute of Health and Welfare.
- Australian Institute of Health and Welfare. (1996). *Australia's Health 1996*. Canberra: Australian Government Publishing Service.
- Australian Institute of Health and Welfare. (1999). *1998 National Drug Strategy Household Survey: First results* (Cat. No. PHE 15). Canberra: Australian Institute of Health and Welfare (Drug Statistics Series).
- Australian Institute of Health and Welfare. (2000a). *1998 National Drug Strategy Household Survey: Detailed findings* (Cat. No. PHE 27). Canberra: Australian Institute of Health and Welfare.
- Australian Institute of Health and Welfare. (2000b). *Australia's health 2000: the seventh biennial health report of the Australian Institute of Health and Welfare*. Canberra: Australian Institute of Health and Welfare.
- Australian Medical Association and Australian Pharmaceutical Manufacturer's Association. (2000). *Indigenous smoking: issues and responses (draft)*. Canberra: Australian Medical Association and Australian Pharmaceutical Manufacturer's Association.
- Baillie, A. J., Mattick, R. P., & Hall, W. (1995). 'Quitting smoking: estimation by meta-analysis of the rate of unaided smoking cessation'. *Australian Journal of Public Health*, 19 (2), 129-31.
- Baird, D., & Wilcox, A. (1985). 'Cigarette smoking associated with delayed conception'. *JAMA*, 253 (20), 2979-83.
- Bardsley, P., & Olekalns, N. (1999). 'The impact of anti-smoking policies on tobacco consumption in Australia'. *Health Promotion Journal of Australia*, 9 (3), 202-5.
- Bastian, P. (1979). 'Coronary heart disease in tribal Aborigines - the West Kimberley survey'. *Aust N Z J Med*, 9 (3), 284-92.
- Bateson, E. M. (1976). 'Duodenal ulcer - does it exist in Australian Aborigines'. *Aust N Z J Med*, 6, 545-7.
- Bateson, E. M. (1985). 'Radiological appearances of primary lung cancer in aboriginals of the Northern Territory of Australia'. *Australas Radiol*, 29 (2), 126-9.
- Baum, F., Kalucy, E., Lawless, A., Barton, S., & Steven, I. (1998). 'Health promotion in different medical settings: women's health, community health and private practice'. *Aust N Z J Public Health*, 22 (2), 200-5.
- Bhatia, K., & Anderson, P. (1995). *An overview of Aboriginal and Torres Strait Islander Health: present status and future trends. An information paper*. Canberra: Australian Institute of Health and Welfare.
- Black, N. (1996). 'Why we need observational studies to evaluate the effectiveness of health care'. *BMJ*, 312 (May 11), 1215-8.
- Borland, R. (1999). 'On apparent consumption and what goes up in smoke: A commentary on Bardsley and Olekalns'. *Health Promotion Journal of Australia*, 9 (3), 208-10.
- Borland, R., & Hill, D. (1997). 'Initial impact of the new Australian tobacco health warnings on knowledge and beliefs'. *Tob Control*, 6 (4), 317-25.

- Boswell, J., & Nienhuys, T. (1996). 'Patterns of persistent otitis media in the first year of life in aboriginal and non-aboriginal infants'. *Ann Otol Rhinol Laryngol*, 105 (11), 893-900.
- Brady, M. (1993). 'Giving away the grog: an ethnography of Aboriginal drinkers who quit without help'. *Drug and Alcohol Review*, 12 , 401-11.
- Brady, M. (1995a). *Broadening the base of interventions for Aboriginal people with alcohol problems* . Sydney: The Australian Institute of Aboriginal and Torres Strait Islander Studies & National Drug and Alcohol Research Centre.
- Brady, M. (1995b). *Giving away the grog*. Canberra: Australian Government Publishing Service.
- Brady, M. (1998, 14-15th March). Giving Aboriginal people the excuse to stop drinking: the role of the health professional. Paper presented at the CARPA conference, Alice Springs.
- Braveman, P., & Tarimo, L. (1994). *Screening in primary health care*. Geneva: World Health Organisation.
- Bremner, P., de Klerk, N., Ryan, G., James, A., Musk, M., Murray, C., Le Souef, P., Young, S., Spargo, R., & Musk, A. (1998). 'Respiratory symptoms and lung function in aborigines from tropical Western Australia'. *Am J Respir Crit Care Med*, 158 (6), 1724-9.
- Briggs, V. (1996). 'Smoking and health in the Koori community'. *Aboriginal and Islander Health Worker Journal*, 20 , 17-8.
- Briggs, V. (1998). Personal communication .
- Briggs, V. (2000). Personal communication .
- Brown, L. (1998). Personal communication .
- Brown, S., & Owen, N. (1992). 'Self-help smoking cessation materials'. *Australian Journal of Public Health*, 16 (2), 188-90.
- Bruvold, W. (1993). 'A meta-analysis of adolescent smoking prevention programs'. *Am J Public Health*, 83 (6), 872-80.
- Bulteau, P., & Burns, D. (1978). 'Aborigines and alcoholism: the role of the general hospital'. *Med J Aust* (June 3), 593-4.
- Castro, A. (1998). Personal communication .
- Castro, A. (2000). Personal communication .
- Cawte, J. (1993). *Healers of Arnhemland*. Sydney: University of New South Wales Press.
- Celermajer, D. (2001). 'Evidence based medicine: how good is the evidence?'. *MJA*, 174 (March 19), 293-5.
- Central Australian Rural Practitioners Association. (1997). *Health screening in Central Australia* . Alice Springs: Central Australian Rural Practitioners Association.
- Centre for Education and Information on Drugs and Alcohol. (1998). *Say no to smokes* . Sydney: CEIDA.
- Chapman, S., & Richardson, J. (1990). 'Tobacco excise and declining tobacco consumption: the case of Papua New Guinea'. *Am J Public Health*, 80 , 537-40.
- Chollat-Traquet, C. (1996). *Evaluating tobacco control activities - experiences and guiding principles*. Geneva: World Health Organisation.
- Christen, W., Manson, J., Seddon, J., Glynn, R., Buring, J., Rosner, B., & Hennekens, C. (1992). 'A prospective study of cigarette smoking and risk of cataract in men'. *JAMA*, 268 (8), 989-98.
- CIET Canada. (1996). *First Nations Youth Inquiry into Tobacco Use* . Ottawa: CIET Canada.
- Cole, K. (1975). *A History of Oenpelli*. Darwin: Nungalinga Publications.

- COMMIT research group. (1995). 'Community Intervention Trial for Smoking Cessation (COMMIT): II. Changes in adult cigarette smoking prevalence'. *Am J Public Health*, 85 (2), 193-200.
- Commonwealth Department of Health and Aged Care. (1999). *National Tobacco Strategy 1999 to 2002-03*. Canberra: Commonwealth of Australia.
- Commonwealth Department of Human Services and Health. (1996). *National Drug Strategy Household Survey*. Canberra: Australian Government Publishing Service.
- Contributors to the Cochrane Collaboration and the Campbell Collaboration. (2000). 'Evidence from systematic reviews of research relevant to implementing the 'wider public health' agenda'. *National Health Service Centre for Reviews and Dissemination*, [Online] Available: <http://www.york.ac.uk/inst/crd/wph.htm> [2001, 20001, May 4].
- Corti, B., Holman, C., Donovan, R., Frizzell, S., & Carroll, A. (1995). 'Using sponsorship to create healthy environments for sport, racing and arts venues in Western Australia'. *Health Promotion International*, 10 (3), 185-97.
- Couzos, S., & Longbottom, H. (1998). *Systematic review of existing evidence and primary care guidelines on the management of otitis media in Aboriginal and Torres Strait Islander populations*. Canberra: Office of Aboriginal and Torres Strait Islander Health.
- Couzos, S., Metcalf, S., Murray, R., & O'Rourke, S. (1997). *Systematic review of existing evidence and primary care guidelines on the management of non-insulin dependent diabetes in Aboriginal and Torres Strait Islander populations*. Canberra: Office of Aboriginal and Torres Strait Islander Health Services.
- Couzos, S., & Murray, R. (1999). *Aboriginal primary health care: An evidence-based approach*. Melbourne: Oxford University Press.
- Cunningham, J. (1994). 'Cigarette smoking among Indigenous Australians, 1994'. *Australian Bureau of Statistics*, [Online] Available: <http://www.abs.gov.au/ausstats/ABS%40.n...a0daa519a1ca2568ba001b8a5c!OpenDocument> [2001, May 3].
- Cunningham, J. (1995). 'The impact of tobacco smoking and alcohol consumption on Aboriginal mortality in Western Australia, 1989-1991'. *Med J Aust*, 163 (July 17), 105.
- Cunningham, J., & Condon, J. R. (1996). 'Premature mortality in Aboriginal adults in the Northern Territory, 1979-1991'. *Med J Aust*, 165 , 309-12.
- Dale, G. (1999). *Jabby Don't Smoke: Developing resources to address tobacco consumption in remote Aboriginal communities*. Paper presented at the 11th National Health Promotion Conference, Perth.
- Danila Dilba Medical Service. (1999). *Giving up the smokes*. Darwin: Danila Dilba Medical Service.
- de Costa, C., & Child, A. (1996). 'Pregnancy outcomes in urban aboriginal women [see comments]'. *Med J Aust*, 164 (9), 523-6.
- Deeble, J., Mathers, C., Smith, L., Goss, J., Webb, R., & Smith, V. (1998). *Expenditures on Health Services for Aboriginal and Torres Strait Islander People*. Canberra: Commonwealth Department of Health and Family Services.
- Dempsey, K., & Condon, J. (1999). *Mortality in the Northern Territory 1979-1997*. Darwin: Territory Health Services.
- Dewar, M. (1992). *The 'Black War' in Arnhem Land*. Darwin: Australia National University, North Australia Research Unit.
- Dickinson, J., Leeder, S., & Sanson-Fisher, R. (1989). 'General practitioners' detection of patients' smoking status'. *Med J Aust*, 150 , 420-6.

- DiClemente, C. C., Prochaska, J. O., Fairhurst, S. K., Velicer, W. F., Velasquez, M. M., & Rossi, J. S. (1991). 'The process of smoking cessation: An analysis of precontemplation, contemplation, and preparation stages of change'. *J Consult Clin Psychol*, 59 (2), 295-304.
- DiFrancesco, M., & Batchelor College. (1998). Syllabus: Batchelor College.
- DiFranza, J., & Lew, R. (1996). 'Morbidity and mortality in children associated with the use of tobacco products by other people'. *Pediatrics*, 97 (4), 560-8.
- DiFranza, J., Savageau, J., & Aisquith, B. (1996). 'Youth access to tobacco: the effects of age, gender, vending machine locks, and "It's the law" programs'. *Am J Public Health*, 86 (2), 221-4.
- Dobson, A., Alexander, H., Heller, R., & Lloyd, D. (1991). 'Passive smoking and the risk of heart attack or coronary death'. *Med J Aust*, 154 , 793-7.
- Doll, R., & Bradford Hill, A. (1950). 'Smoking and carcinoma of the lung'. *BMI*, 2 , 739-48.
- Dunne, M., Yeo, M., Keane, J., & Elkins, D. (2000). 'Substance abuse by indigenous and non-indigenous primary school students'. *Aust NZ J Public Health*, 24 (5), 546-9.
- Eades, d., & Ambrose, M. (1999). Yamatji Smoking Prevention Program. Paper presented at the 11th National Health Promotion Conference - Building Social Capital in the 21st Century, Perth, Western Australia.
- Eades, S., & Read, A. (1999). 'Infant care practices in a metropolitan aboriginal population Bibbulung Gnarneep Team'. *J Paediatr Child Health*, 35 (6), 541-4.
- English, D., Holman, C., Milne, E., Winter, M., Hulse, G., & Codde, J. (1995). *The quantification of drug caused morbidity and mortality in Australia 1995*. (Vol. 2). Canberra: Australian Government Publishing Service.
- Fagerstrom, K. (1978). 'Measuring degree of physical dependence to tobacco smoking with reference to individualization of treatment'. *Add Behav*, 3 , 235-41.
- Fejo, L. (1994). 'The strong women, strong babies, strong culture program'. *Aboriginal and Islander Health Worker Journal*, 18 (6), 16.
- Fiore, M., Novotny, T., Pierce, J., Giovino, G., Hatziandreu, E., Newcomb, P., Surawicz, T., & Davis, R. (1990). 'Methods used to quit smoking in the United States'. *JAMA*, 263 (20), 2760-5.
- Fisher, K. J. (1990, 1-5th April). A meta-analysis of controlled studies of worksite smoking cessation. Paper presented at the Tobacco and Health 1990-The Global War, Perth, Western Australia.
- Flick, B. (1998). 'Drugs of opulence and drugs of dispossession'. *Aboriginal and Islander Health Worker Journal*, 22 (4), 7-9.
- Forero, R., Bauman, A., Chen, J., & Flaherty, B. (1999). 'Substance abuse and socio-demographic factors among Aboriginal and Torres Strait Islander school students in New South Wales'. *Aust NZ J Public Health*, 23 (3), 295-300.
- Fowler, G. (1990, 1-5th April). Randomised controlled trial of anti-smoking advice by nurses in general practice. Paper presented at the Tobacco and Health 1990-The Global War, Perth, Western Australia.
- Gale, M. (1992). 'Publish or perish?: observations on the reasons for writing in Aboriginal languages'. *Australian Aboriginal Studies*, 2 , 42-8.
- Gilchrist, D. (1998). 'Smoking prevalence among Aboriginal women'. *Aboriginal and Islander Health Worker Journal*, 22 (4), 4-6.
- Gill, J. (1999). 'The Lung Story'. *Aboriginal and Islander Health Worker Journal*, 23 (1), 7-8.
- Glasgow, R., Lichtenstein, E., Hall, R., Meyers, G., Wilder, D., & Gilbert McRae, S. (1993). 'Indoor smoking policies of Indian tribes in the northwestern United States'. *Tob Control*, 2 , 35-7.

- Glassman, A., Stetner, F., Walsh, T., Ralzman, P., Fleiss, J., Cooper, T., & Covey, L. (1988). 'Heavy smokers, smoking cessation and clonidine'. *JAMA*, 259 (19), 2863-6.
- Glasziou, P., & Irwig, L. (1995). 'An evidence-based approach to individualising treatment'. *BMJ*, 311 (November 18), 1356-9.
- Glynn, T. J., Boyd, G. M., Shopland, D. R., & Pechacek, T. F. (1990, April 1-5). The US National Cancer Institute Intervention Trials Program: Results and recommendations for tobacco use control. Paper presented at the Tobacco and health 1990 -The Global War, Perth, Western Australia.
- Goto, Y. (1998). *Store food: a case study of the food supply in Maningrida from 1988-1995*. Canberra: Australian National University.
- Gracey, M., & Anderson, C. M. (1989). 'Hospital admissions for infections of Aboriginal and non-Aboriginal infants and children in Western Australia, 1981-1986'. *Australian Journal of Paediatrics*, 25, 230-5.
- Gracey, M., Sullivan, H., Burke, V., & Gracey, D. (1992). 'Maternal and environmental factors associated with infections and undernutrition in young Australian aboriginal children'. *Ann Trop Paediatr*, 12 (1), 111-9.
- Gray, D., Morfitt, B., Ryan, K., & Williams, S. (1997). 'The use of tobacco, alcohol and other drugs by young Aboriginal people in Albany, Western Australia'. *Aust N Z J Public Health*, 21 (1), 71-6.
- Groth-Marnat, G., Leslie, S., & Renneker, M. (1996). 'Tobacco control in a traditional Fijian village: Indigenous methods of smoking cessation and relapse prevention'. *Soc Sci Med*, 43 (4), 473-7.
- Guest, C., O'Dea, K., Carlin, J., & Larkins, R. (1992). 'Smoking in Aborigines and persons of European descent in southeastern Australia: prevalence and associations with food habits, body fat distribution and other cardiovascular risk factors'. *Australian Journal of Public Health*, 16 (4), 397-402.
- Guest, C., O'Dea, K., & Larkins, R. (1994). 'Blood pressure, lipids and other risk factors for cardiovascular disease in Aborigines and persons of southeastern Australia'. *Australian Journal of Public Health*, 18 (1), 79-86.
- Guyula, T. (1998). 'The Gapuwiyak Men's Clinic'. *Aboriginal and Islander Health Worker Journal*, 22 (2), 2-3.
- Hackshaw, A., Law, M., & Wald, N. (1997). 'The accumulated evidence on lung cancer and environmental tobacco smoke'. *BMJ*, 315, 980-8.
- Hall, W., Solowij, N., & Lemon, J. (1994). *The health and psychological consequences of cannabis use*. Canberra: Australian Government Publishing Service.
- Hancock, L., Sanson-Fisher, R., & Perkins, J. (2000). 'The effect of a community action intervention on smoking behaviours in rural Australian towns: The CART project'. *International Journal of Behavioural Medicine*, 7 (Supplement 1), 179.
- Harrison, K., Breen, T., & Hennessy, J. (1990). 'The effect of patient smoking habit on the outcome of IVF and GIFT treatment'. *Aust N Z J Obstet Gynaecol*, 30 (4), 340-2.
- Hayman, N. (2000). Personal communication .
- Health Department of Western Australia. (1997). '1994 Quit Campaign Summary'. *Health Department of Western Australia*, [Website] Available: <http://www.public.health.wa.gov.au/hp5376.htm> [2000, May 20].
- Health Information Centre, Q. H. (2000). *The contribution of cigarette smoking to mortality and hospital morbidity in Queensland and the Aboriginal Communities*. Brisbane: Queensland Health.

- Heywood, A., Sanson-Fisher, R., Ring, I., & Mudge, P. (1994). 'Risk prevalence and screening for cancer by general practitioners'. *Prev Med*, 23 , 152-9.
- Hill, D. J., & White, V. M. (1995). 'Australian adult smoking prevalence in 1992'. *Australian Journal of Public Health*, 19 (3), 305-8.
- Hill, D. J., White, V. M., & Gray, N. J. (1988). 'Measures of tobacco smoking in Australia 1974-1986 by means of a standard method'. *Med J Aust*, 149 , 10-2.
- Hill, D. J., White, V. M., & Scollo, M. M. (1998). 'Smoking behaviours of Australian adults in 1995: trends and concerns'. *Med J Aust*, 168 (March 2), 209-13.
- Hill, H., Schoenbach, D., Kleinbaum, D., Strecher, V., CT, O., VJ, G., & BH, K. (1994). 'A longitudinal analysis of predictors of quitting smoking among participants of a self-help intervention trial'. *Addict Behav*, 19 (2), 159-73.
- Hogg, R. S. (1994). 'Variability in behavioural risk factors for heart disease in an Australian aboriginal community'. *J Biosoc Sci*, 26 (4), 539-51.
- Hoy, W. E., Norman, R. J., Hayhurst, B. G., & Pugsley, D. J. (1997). 'A health profile of adults in a Northern Territory aboriginal community, with an emphasis on preventable morbidities [see comments]'. *Aust N Z J Public Health*, 21 (2), 121-6.
- Hughes, J., Stead, L., & Lancaster, T. (2000). 'Antidepressants for smoking cessation (Cochrane Review)'. *The Cochrane Library*, 4 .
- Hymowitz, N., Cummings, K. M., Hyland, A., Lynn, W. R., Pechacek, T. F., & Hartwell, T. D. (1997). 'Predictors of smoking cessation in a cohort of adult smokers followed for five years'. *Tob Control*, 6 (Supplement 2), S57-S62.
- Ivers, R. (1998). "Healthy adult checks" - preventive interventions for Aboriginal adults in two remote communities in the Northern Territory. Unpublished Masters of Public Health, University of Sydney, Sydney.
- Jamrozik, K., Vessey, M., Fowler, G., Wald, N., Parker, G., & Vunakis, H. (1984). 'Controlled trial of three different anti-smoking interventions in general practice'. *BMJ*, 288 , 1499-503.
- Johnston, F., Beecham, R., Dalgleish, P., Malpraburr, T., & Gamarania, G. (1997). 'The Maningrida 'Be Smoke Free' Project'. *Health Promotion Journal of Australia*, 8 (1), 12-7.
- Kamien, M. (1976). 'The physical health of Aboriginal adults in Bourke, New South Wales'. *Med J Aust*, 1 (Special supplement), S38-S45.
- Kerridge, I., Lowe, M., & Henry, D. (1998). 'Ethics and evidence based medicine'. *BMJ*, 316 (April 11), 1151-3.
- Kildea, S. (1997). A retrospective epidemiological study comparing fertile and infertile women in a remote Indigenous community in Australia. Unpublished Bachelor of Health Science in Nursing (Honours), Southern Cross University, Lismore, New South Wales.
- King's Fund. (1999). 'Evidence and public health: Towards a common framework'. *King's Fund*, [Online] Available: <http://www.kingsfund.org.uk/publichealth> [2001, May 16].
- Kirscht, J., Brock, B., & Hawthorne, V. (1987). 'Cigarette smoking and changes in smoking among a cohort of Michigan adults, 1980-82'. *Australian Journal of Public Health*, 77 (4), 501-2.
- Kottke, T., Battista, R., DeFries, G., & Brekke, M. (1988). 'Attributes of successful smoking cessation interventions in medical practice. A meta-analysis of 39 controlled trials'. *JAMA*, 259 (19), 2883-9.
- Lake, P. (1992). 'Aboriginal Attitudes to Smoking'. *Aboriginal and Islander Health Worker Journal*, 6 (6), 11-3.

- Lancaster, T., & Stead, L. (1999). 'Individual behavioural counselling for smoking cessation (Cochrane Review)'. *Cochrane Library*. (2), [Online] Available: <http://www.cochrane.org/cochrane/revabstr/ab001292.htm> [2001, May 4].
- Lancaster, T., & Stead, L. (2001). 'Self-help interventions for smoking cessation (Cochrane Review)'. *Cochrane Library*. (2), [Online] Available: <http://www.cochrane.org/cochrane/revabstr/ab001118.htm> [2001, May 7].
- Laugesen, M., & Clements, M. (1998). *Cigarette smoking mortality among Maori, 1954-2028*. Wellington: Health New Zealand.
- Law, M., Morris, J., & Wald, N. (1997). 'Environmental tobacco smoke exposure and ischaemic heart disease: an evaluation of the evidence'. *BMJ*, 315 (7114), 973-80.
- Lee, A., Bailey, A., Yarmirr, D., O'Dea, K., & Mathews, J. (1994). 'Survival tucker: improved diet and health indicators in an Aboriginal community'. *Australian Journal of Public Health*, 18 (3), 277-85.
- Lindorff, K. (1999). Personal communication .
- Low, T. (1987). 'Pituri - tracing the trade routes of an indigenous intoxicant'. *Australian Natural History*, 22 (6), 257-60.
- Lumholtz, C. (1980). *Among cannibals*. (2nd ed.). Canberra: Australian University Press.
- Lumley, J., Oliver, S., & Waters, E. (1999). 'Interventions for promoting smoking cessation during pregnancy (Cochrane Review)'. *Cochrane Library*. (2), [Online] Available: <http://www.cochrane.de/cochrane/revabstr/ab001055.htm> [2001, June 24th].
- Mackerras, D. (1998). *Evaluation of the Strong Women, Strong Babies, Strong Culture Program* (Menzies Occasional Papers). Darwin: Menzies School of Health Research.
- Macknight, C. (1976). *The Voyage to Marege*. Melbourne: Melbourne University Press.
- Manley, M., Lynn, W., Payne Epps, R., Grande, D., Glynn, T., & Shopland, D. (1997). 'The American Stop Smoking Intervention Study for cancer prevention: an overview'. *Tob Control*, 6 (Suppl 2), S5-S11.
- Markey, P. (1996). The prevalence of ischaemic and rheumatic heart disease and risk factors in Aboriginal and non-Aboriginal footballers. Unpublished Masters, University of Adelaide, Adelaide.
- Marr Mooditj Foundation Incorporated and Health Department of Western Australia. (1995). *Gnummari Wa - You won't go far*. Perth: Marr Mooditj Foundation Incorporated and Health Department of Western Australia.
- Marshall, M. (1991). 'The second fatal impact: cigarette smoking, chronic disease, and the epidemiological transition in Oceania'. *Soc Sci Med*, 33 (12), 1327-42.
- Mathers, C. (1994). *Health differentials among adult Australians aged 25-64 years*. Canberra: Australian Government Publishing Service.
- Mattick, R., & Baillie, A. (1992). *An outline for approaches to smoking cessation*: National Campaign Against Drug Abuse.
- Maynard, A. (1997). 'Evidence-based medicine: an incomplete method for informing treatment choices'. *Lancet*, 349 (January 11), 126-7.
- McCarthy, F. (1938-9). "'Trade" in Aboriginal Australia and "trade" relationships with Torres Strait, New Guinea and Malaya'. *Oceania*, 9 , 404-38.
- McLennan, W., & Madden, R. (1997). *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples*. Canberra: Australian Bureau of Statistics.

- McMillan, S. (1991). 'Food and nutrition policy issues in remote Aboriginal communities: lessons from Arnhem Land'. *Australian Journal of Public Health*, 15 (4), 281-5.
- Measey, M., d'Espaignet, E., & Cunningham, J. (1998). *Mortality and morbidity attributable to smoking Northern Territory 1986-1995*. Darwin: Territory Health Services.
- Mendelsohn, C., & Richmond, R. (1992). 'GPs can help patients to stop smoking'. *Med J Aust*, 157, 463-7.
- Miwa, K., Fujita, M., Inoue, H., & Sasayama, S. (1995). 'Is smoking behaviour in patients with coronary heart disease influenced by whether their attending physician smokes?'. *Tob Control*, 4, 236-8.
- Morey, E. (1933). (CRS A452 53/106). Canberra: Australian Archives.
- Morris, P. (1998). Improving the medical management of otitis media and other chronic bacterial respiratory diseases in rural and remote Australian Aboriginal children: a systematic approach. Unpublished PhD, University of Sydney, Darwin.
- Muir Gray, J. (1997). *Evidence-based health care: How to make health policy and management decisions*. New York: Pearson Professional Limited.
- Mullins, R., & Borland, R. (1995). *Key findings of the 1993 Household Survey*. Melbourne: Victorian Smoking and Health Program.
- Mullins, R., & Borland, R. (1996). 'Do smokers want to quit?'. *Aust N Z J Public Health*, 20 (4).
- Mullins, R., Borland, R., & Gibbs, A. (1992-3). *Evaluation of the Fresh Start workplace and community courses in 1990 and 1991*. Melbourne.
- Mullins, R., & Reid, Y. (1994-5). *Enhancing general practitioner participation in smoking cessation*. Melbourne.
- Musk, A. W., de Klerk, N. H., Eccles, J. L., Hansen, J., & Shilkin, K. B. (1995). 'Malignant mesothelioma in Pilbara Aborigines'. *Australian Journal of Public Health*, 19 (5), 520-2.
- National Aboriginal Health Strategy Working Party. (1989). *A national Aboriginal health strategy*.
- National Drug Strategy. (1994). *Statistics on drug abuse in Australia 1994*. Canberra: Australian Government Publishing Service.
- National Health and Medical Research Council. (1986). *Effects of passive smoking on health: Report of the NH&MRC Working Party on the effects of passive smoking on health*. Canberra: National Health and Medical Research Council.
- National Health and Medical Research Council. (1996a). *Guidelines for preventive interventions in primary health care - cardiovascular disease and cancer*. Canberra: Australian Government Publishing Service.
- National Health and Medical Research Council. (1996b). 'Promoting the health of Aboriginal and Torres Strait Islander communities'. *NHMRC*, [Online] Available: <http://www.health.gov.au/nhmrc/public/synopses/hp75yn.htm> [2001, April 12].
- National Health and Medical Research Council. (1996c). *Promoting the health of Indigenous Australians - A review of the infrastructure support for Aboriginal and Torres Strait Islander health advancement*. Canberra: National Health and Medical Research Council.
- National Health and Medical Research Council. (1999a). 'A guide to the development, implementation and evaluation of clinical practice guidelines'. *National Health and Medical Research Council*, [Online] Available: <http://www.health.gov.au/nhmrc/publicat/pdf/cp30.pdf> [2000, April 27].

- National Health and Medical Research Council. (1999b). 'How to review the evidence: systematic identification and review of the scientific literature'. *National Health and Medical Research Council*, [Online] Available: <http://www.health.gov.au/nhmrc/publicat/synopses/cp65syn.htm> [2001, April 17].
- National Tobacco Campaign. (1999). *Australia's National Tobacco Campaign: Evaluation Report Volume 1*. Canberra: Commonwealth Department of Health and Aged Care.
- Newman, J., Acklin, F., Trindall, A., Arbon, V., Brock, K., Bermingham, M., & Thompson, C. (1999). 'Story-telling: Australian Indigenous women's means of health promotion'. *Aboriginal and Islander Health Worker Journal*, 23 (4), 18-21.
- Northern Territory Department of Education. (1999). *Learning lessons*. Darwin: Northern Territory Department of Education.
- O'Connor, M., Parker, E., Micklejohn, B., Oldburg, B., & Alati, R. (1999). 'Heart Health education resources for Aboriginal and Torres Strait Islander communities: The Health Worker's view'. *Aboriginal and Islander Health Worker Journal*, 23 (2), 20-3.
- O'Donoghue, L. (1995). *Aboriginal health: An ATSIC perspective*. Canberra: Australian Institute of Aboriginal and Torres Strait Islander Studies.
- Office of Aboriginal and Torres Strait Islander Health. (1999). *STD control in remote Aboriginal communities*. Canberra: Office of Aboriginal and Torres Strait Islander Health.
- Office of Aboriginal and Torres Strait Islander Health. (2000). 'National recommendations for the clinical management of alcohol-related problems in Indigenous primary care settings'. *Office of Aboriginal and Torres Strait Islander Health*, [Online] Available: <http://www.health.gov.au/oatsih/pubs/alco.htm> [2001, April 29].
- Owen, N., & Davies, M. (1990). 'Smoker's preferences for assistance with cessation'. *Prev Med*, 19, 424-31.
- Paterson, B., & Batchelor College. (1998). *The health of school age children*: Batchelor College.
- Patrick, D., Cheadle, A., Thompson, D., Diehr, P., Koepsell, T., & Kinne, S. (1994). 'The validity of self-reported smoking: A review and meta-analysis'. *Am J Public Health*, 84 (7), 1086-93.
- Paul, C., & Redman, E. (1997). 'A review of the effectiveness of print material in changing health-related knowledge, attitudes and behaviour'. *Health Promotion Journal of Australia*, 7 (2), 91-9.
- Pederson, L. L., Bull, S. B., Ashley, M. J., & MacDonald, J. K. (1996). 'Quitting smoking: why, how, and what might help'. *Tob Control*, 5, 209-14.
- Perkins, E., Simmet, I., & Wright, L. (1999). *Evidence based health promotion*. Chichester: John Wiley and Sons Ltd.
- Perkins, J. J., Sanson-Fisher, R. W., Blunden, S., Lunnay, D., Redman, S., & Hensley, M. J. (1994). 'The prevalence of drug use in urban aboriginal communities'. *Addiction*, 89 (10), 1319-31.
- Pierce, J., Macaskill, P., & Hill, D. (1990). 'Long-term effectiveness of mass media led antismoking campaigns in Australia'. *Am J Public Health*, 80 (5), 565-9.
- Plant, A., Krause, V., Condon, J., & Kerr, C. (1995a). 'Aborigines and tuberculosis'. *Aust J Public Health*, 19 (5), 487-91.
- Plant, E., Condon, J., & Durling, G. (1995b). *Northern Territory health outcomes: morbidity and mortality 1979-1991*. Darwin: Territory Health Services.
- Purdie, R. (1982). 'Tomatoes, tobacco & intoxicant weeds'. *Australian Natural History*, 20 (10), 343-8.
- Redman, S. (1996). 'Towards a research strategy to support public health programs for behaviour change'. *Aust N Z J Public Health*, 20 (4), 352-8.

- Reid, J. C., & Mununggurr, D. (1977). 'We are losing our brothers - Sorcery and alcohol in an Aboriginal community'. *Med J Aust*, 2 (Special Supplement), 1-5.
- Reynolds, H. (1982). *The other side of the frontier*. Ringwood, Victoria: Penguin Books Australia Ltd.
- Rice, V., & Stead, L. (1999). 'Nursing interventions for smoking cessation (Cochrane Review)'. *Cochrane Library*. (2), [Online] Available: <http://www.cochrane.org/cochrane/revabstr/ab001188.htm> [2001, May 5].
- Richards, R., & McComb, J. (1994). *Tobacco consumption in Darwin, October 1994*. Darwin: Territory Health Services.
- Richmond, R., Kehoe, L., Heather, N., Wodak, A., & Webster, I. (1996). 'General practitioners' promotion of healthy life styles: what patients think'. *Aust N Z J Public Health*, 20 (2), 195-200.
- Richmond, R., & Webster, I. (1985). 'A smoking cessation programme for use in general practice'. *Med J Aust*, 142 (February 4), 190-4.
- Richmond, R. L., Austin, A., & Webster, I. W. (1986). 'Three year evaluation of a programme by general practitioners to help patients to stop smoking'. *BMJ*, 292 , 803.
- Rigotti, N., Munafo, M., Murphy, M., & Stead, L. (2001). 'Interventions for smoking cessation in hospitalised patients (Cochrane Review)'. *Cochrane Library*. (2), [Online] Available: <http://www.cochrane.org/cochrane/revabstr/ab001837.htm> [2001, May 6].
- Roche, A. (1996). 'Increasing primary care providers' willingness to intervene in alcohol- and drug-related problems: A review'. *Substance Abuse*, 17 (4), 201-17.
- Roche, A., & Ober, C. (1997). 'Rethinking smoking among Aboriginal Australians: The harm minimisation-abstinence conundrum'. *Health Promotion Journal of Australia*, 7 (2), 128-33.
- Roemer, R. (1993). *Legislative action to combat the world tobacco epidemic*. (2nd ed.). Geneva: World Health Organisation.
- Rosengren, A., Welin, L., Tsipogianni, A., & Wilhelmsen, L. (1989). 'Impact of cardiovascular risk factors on coronary heart disease and mortality among middle aged diabetic men: a general population study'. *BMJ*, 299 (November 4), 1127-31.
- Rosser, B. (1985). *Dreamtime nightmares*. Melbourne: Penguin Books.
- Rothwell, P. (1995). 'Can overall results of clinical trials be applied to all patients?'. *Lancet*, 345 (June 24), 1616-9.
- Royal Australian College of General Practitioners. (1996). *Guidelines for preventive activities in general practice*. (4th ed.). Melbourne: Royal Australian College of General Practitioners.
- Russell, M., Stapleton, J., Jackson, P., Hajek, P., & Belcher, M. (1987). 'District programme to reduce smoking: effect of clinic supported brief intervention by general practitioners'. *BMJ*, 295 (November 14), 1240-4.
- Russell, M., Wilson, C., Taylor, C., & Baker, C. (1979). 'Effect of general practitioners' advice against smoking'. *BMJ*, 2 , 231-5.
- Rychetnik, L., & Frommer, M. (2000). 'A proposed schema for evaluating evidence on public health interventions'. *National Public Health Partnerships*, [Online] Available: <http://hna.ffh.vic.gov.au/nphp/nphpubs.htm> [2001, 2001, April 1].
- Sackett, D., Rosenberg, W., Muir Gray, J., Haynes, R., & Richardson, W. (1996). 'Evidence based medicine: what it is and what it isn't'. *BMJ*, 312 (January 13), 71-2.
- Sayers, S., & Powers, J. (1997). 'Risk factors for aboriginal low birthweight, intrauterine growth retardation and preterm birth in the Darwin Health Region'. *Aust N Z J Public Health*, 21 (5), 524-30.

- Schoendorf, K., & Kiely, J. (1992). 'Relationship of sudden infant death syndrome to maternal smoking during and after pregnancy'. *Pediatrics*, 90 (6), 905-8.
- Seibold, M. (2000). *Indigenous Tobacco Control Pilot Project: Process Evaluation, Workplace Policy Development Pilot, Phase One*. Brisbane: Queensland Health.
- Serra, C., Cabezas, C., Bonfill, X., & Pladevall-Vila, M. (2000). 'Interventions for preventing tobacco smoking in public places (Cochrane Review)'. *Cochrane Library*. (3), [Online] Available: <http://hiru.mcmaster.ca/cochrane/cochrane/revabstr/ab001294.htm> [2000, December 14].
- Shoobridge, J., Vincent, N., Wilson, S., Norville, I., Allsop, S., & Biven, A. (1997). Using rapid assessment procedures to examine injecting drug use in an Aboriginal community. Paper presented at the Winter school in the sun: Drug interactions: lifestyle, culture and gender.
- Sibthorpe, B. (1988). 'All our people are dyin'': Diet and stress in an urban Aboriginal community. Unpublished Doctor of Philosophy, Australian National University, Canberra.
- Silagy, C., & Ketteridge, S. (1998). 'Physician advice for smoking cessation (Cochrane Review)'. *Cochrane Library*, [Online] Available: <http://www.update-software.com/ccweb/cochrane/revabstr/ab000165> [1999, 1999, April 4].
- Silagy, C., Lancaster, T., Fowler, G., & Spiers, I. (1997). 'Meta-analysis: Training health care professionals to provide smoking cessation interventions only slightly increases smoking cessation'. *Evidence-Based Medicine*, 2 , 48.
- Silagy, C., Mant, D., Fowler, G., & Lancaster, T. (2000). 'Nicotine replacement therapy for smoking cessation (Cochrane Review)'. *Cochrane Library*, 3 .
- Silagy, C., Mant, D., Fowler, G., & Lodge, M. (1994). 'Meta-analysis on efficacy of nicotine replacement therapies in smoking cessation'. *Lancet*, 343 (8890), 139-42.
- Simmer, T., Fitzpatrick, J., Davis, R. M., Kristeller, J., Emmons, K., Ahluwalia, J. S., Ocken, J. K., Cohen, S., & Pitts Winegarden, D. (1997). 'Open discussion: successful implementation - prerequisites and barriers'. *Tob Control*, S29-32.
- Simons, L., Whish, P., Marr, B., Jones, A., & Simons, J. (1981). 'Coronary risk factors in a rural community which includes Aborigines: Inverell Heart Disease Prevention Programme'. *Aust N Z J Med*, 11 (4), 386-90.
- Slama, K., Redman, S., Perkins, J., Reid, A., & Sanson-Fisher, R. (1990). 'The effectiveness of two smoking cessation programmes for use in general practice: a randomised clinical trial'. *BMJ*, 300 , 1706-7.
- Slattery, M., Robison, L., Schuman, K., French, T., Abbott, T., Overall, J., & Gardner, J. (1989). 'Cigarette smoking and exposure to passive smoke are risk factors for cervical cancer'. *JAMA*, 261 (11), 1593-8.
- Smith, R. M., Spargo, R. M., King, R. A., Hunter, E. M., Correll, R. L., & Nestel, P. J. (1992). 'Risk factors for hypertension in Kimberley aborigines'. *Med J Aust*, 156 (8), 562-6.
- Sowden, A., & Arblaster, L. (1998). 'Mass media interventions for preventing smoking in young people (Cochrane Review)'. *Cochrane Library*. (4), [Online] Available: <http://www.update-software.com/ccweb/cochrane/revabstr/ab001006> [2000, December 14].
- Sowden, A., & Arblaster, L. (2000). 'Community interventions for preventing smoking in young people (Cochrane Review)'. *Cochrane Library*. (4), [Online] Available: <http://wwwsom.fmc.flinders.edu.au/...ANE/cochrane/revabstr/ab001291.htm> [2000, 2000, December 14].
- Spark, R., Binns, C., Laughlin, D., Spooner, C., & Donovan, R. J. (1992). 'Aboriginal people's perceptions of their own and their community's health: Results of a pilot study'. *Health Promotion Journal of Australia*, 2 (2), 60-64.

- Speller, V., Learmouth, A., & Harrison, D. (1997). 'The search for evidence of effective health promotion'. *BMJ*, 315 (August 9), 361-3.
- Statistics Canada. (1993). *Language, tradition, health, lifestyle and social issues* (1991 Aboriginal People's Survey Cat. No. 89-533). Ottawa: Statistics Canada.
- Statistics New Zealand and Ministry of Health. (1993). *A picture of health*. Wellington: Statistics New Zealand and Ministry of Health.
- Stead, L., & Lancaster, T. (2000a). 'Group behaviour therapy programmes for smoking cessation (Cochrane Review)'. *Cochrane Library*, [Online] Available: <http://www.update-software.com/ccweb/cochrane/revabstr/ab001007> [4, 2000, April 24].
- Stead, L., & Lancaster, T. (2000b). 'Interventions for preventing tobacco sales to minors (Cochrane Review)'. *Cochrane Library*. (3), [Online] Available: <http://hiru.mcmaster.ca/cochrane/cochrane/revabstr/ab001497.htm> [2001, May 4].
- Stead, L., & Lancaster, T. (2001). 'Telephone counselling for smoking cessation (Cochrane Review)'. *Cochrane Library*. (2), [Online] Available: <http://www.cochrane.org/cochrane/revabstr/ab002850.htm> [2001, May 5].
- Stephens, T., & Fowler, G. D. (1993). *Canada's Health Promotion Survey 1990: technical support*. Ottawa: Minister of Supply and Services, Canada.
- Stephenson, A. (1998). Personal communication .
- Stephenson, J., & Lenz, P. (1991). 'Heart health: 'Gotta be strong' (conference abstract)'. *Australian Journal of Public Health*, 15 (4), 339.
- Strachan, D. P., & Cook, D. G. (1998). 'Health effects of passive smoking. 4. Parental smoking, middle ear disease and adenotonsillectomy in children'. *Thorax*, 53 (1), 50-6.
- Taylor, H. R. (1980). 'Prevalence and causes of blindness in Australian Aborigines'. *Med J Aust*, 1 , 71-6.
- Taylor, R. (1993). 'Risk of premature death from smoking in 15-year -old Australians'. *Aust J Public Health*, 17 (4), 358-64.
- Thompson, J. (1997). 'Respiratory signs in Aboriginal communities [letter; comment]'. *Aust N Z J Public Health*, 21 (3), 343-4.
- Thompson, J. E., Sleight, A. C., Passey, M. E., Barnes, A., & Streatfield, R. W. (1992). 'Ventilatory standards for clinically well Aboriginal adults'. *Med J Aust*, 156 (8), 566-9.
- Thomson, D. (1939). 'Notes on the smoking -pipes of North Queensland and the Northern Territory of Australia'. *Man*, 39 , 81-91.
- Thomson, D. (1992). 'Northern Territory coastal patrol'. *Aboriginal History*, 16 , 1-57.
- Thomson, N. (1984). ' Aboriginal health-current status'. *Aust N Z J Med*, 14 (5), 705-18.
- Thorpe, L. (1996). Aboriginal Children's Health Promotion Project. In R. Bear-Wingfield (Ed.), *Sharing good tucker stories*. Canberra: Department of Health and Family Services.
- Tiwi Health Board. (1999). Personal communication .
- Todd, G. F. (1978). 'Cigarette consumption per adult of each sex in various countries'. *J Epidemiol Community Health*, 32 , 289-93.
- Torzillo, P. J., Waterford, J. E., Hollows, F. C., & Jones, D. L. (1983). 'Respiratory disease amongst Aborigines in the Pilbara'. *Int J Epidemiol*, 12 (1), 105-6.
- Uhari, M., Mäntysaari, K., & Niemelä, M. (1996). 'A meta-analytic review of the risk factors for acute otitis media'. *Clin Infect Dis*, 22 (June), 1079-83.

- United States Surgeon General. (1983). *The health consequences of smoking - cardiovascular disease*. Rockville, Maryland: US Department of Health and Human Services.
- United States Surgeon General. (1985). *The health consequences of smoking - Cancer and chronic lung disease in the workplace*. Rockville, Maryland: US Department of Health and Human Services.
- United States Surgeon General. (1990). *The health benefits of smoking cessation - Executive summary*. Atlanta: US Department of Health and Human Services.
- Unwin, E., Thomson, N., & Gracey, M. (1994). *The impact of tobacco smoking and alcohol consumption on Aboriginal mortality and hospitalisation in Western Australia: 1983-1991*. Perth: Health Department of Western Australia.
- Urupuntja Health Service. (1990). *Health survey*. Alice Springs: Institute of Aboriginal Development.
- Veale, A. J., Peat, J. K., Salome, C. M., Woolcock, A. J., & Thompson, J. E. (1997). 'Normal' lung function in rural Australian aborigines'. *Aust N Z J Med*, 27 (5), 543-9.
- Vine, M. F., Margolin, B. H., Morrison, H. I., & Hulka, B. S. (1994). 'Cigarette smoking and sperm density: a meta-analysis'. *Fertil Steril*, 61 (1), 35-43.
- von Brandenstein, C. (1970). *Narratives from the North-West of Western Australia*. Canberra: Australian Institute of Aboriginal Studies.
- Walker, R. (1984). *Under fire - a history of tobacco smoking in Australia*. Melbourne: Melbourne University Press.
- Walley, C., & James, R. (1995). 'Producing culturally appropriate health promotion resources for Aboriginal people'. *Aboriginal and Islander Health Worker Journal*, 19 (1), 6-9.
- Watson, C., Fleming, J., & Alexander, K. (1988). *A survey of drug use patterns in Northern Territory Aboriginal communities 1986-1987*. Darwin: Northern Territory Department of Health and Community Services.
- Watson, D. S. (1986). 'Biparietal diameter in the Australian aboriginal fetus'. *Br J Obstet Gynaecol*, 93 (4), 339-42.
- Watson, D. S., & Clapin, M. (1992). 'Ear health of Aboriginal primary school children in the Eastern Goldfields Region of Western Australia'. *Australian Journal of Public Health*, 16 (1), 26-30.
- Watson, D. S., Watson, R. M., & Siskind, V. (1986). 'Respiratory function in aboriginal children'. *Med J Aust*, 144 Suppl, S11-3.
- Weeramanthri, T. S., Powers, J. R., & Collier, J. W. (1996). 'Cardiac pathology and adult Aboriginal mortality: a coronial study of sudden and external cause deaths in the Top End of the Northern Territory in 1990'. *Pathology*, 28, 40-4.
- Williams, P., Gracey, M., & Smith, P. (1997). 'Hospitalisation of Aboriginal and non-Aboriginal patients for respiratory tract diseases in Western Australia, 1988-1993'. *Int J Epidemiol*, 26 (4), 797-805.
- Wilson, D. H., Wakefield, M. A., Steven, I. D., Rohrsheim, R. A., Esterman, A. J., & Graham, N. M. H. (1990). "'Sick of smoking": evaluation of a targeted minimal smoking cessation intervention in general practice'. *Med J Aust*, 152, 518-21.
- Windham, G., Swan, S., & Fenster, L. (1992). 'Parental cigarette smoking and the risk of spontaneous abortion'. *Am J Epidemiol*, 135 (12), 1394-403.
- Winstanley, M., Woodward, S., & Walker, N. (1995). *Tobacco in Australia*. (2nd ed.). Melbourne: Victorian Smoking and Health Program.

- Woodward, M., & Tunstall-Pedoe, H. (1992). 'Do smokers of lower tar cigarettes consume lower amounts of smoke components? Results from the Scottish Heart Health Study'. *Br J Addiction*, 87, 921-8.
- World Health Organisation. (1986, November 17-21). Ottawa charter for health promotion. Paper presented at the International Conference on Health Promotion, Ottawa.
- Wynder, E., & Graham, E. (1950). 'Tobacco smoking as a possible etiologic factor in bronchogenic carcinoma'. *JAMA*, 143, 329-36.
- Young, M., Fricker, P., Thomson, N., & Lee, K. (1999). 'Sudden death due to ischaemic heart disease in young Aboriginal sportsmen in the Northern Territory, 1982-1996'. *Med J Aust*, 170 (9), 425-8.



Appendices

APPENDIX 1 – Mortality and morbidity for specific conditions – Indigenous Australians

Table A1.1 Age standardised mortality rates and ratios for lung cancer in Indigenous Australians

Condition	State/ Territory	Year(s)	Age standardised mortality rates Indigenous males	Age standardised mortality rates Indigenous females	Age standardised mortality ratio males	Age standardised mortality ratio – females
Lung cancer	NT (Dempsey & Condon, 1999)	1991 1995	128	58	2.2	3.1
Lung cancer	WA (Unwin et al., 1994)	1989 1991			1.4	1.2
Lung cancer	SA, WA, NT (Anderson et al., 1996)	1992 1994	86	41	1.7	2.6
Lung cancer	NSW, SA, WA, NT (Bhatia & Anderson, 1995)	1991 1992	48	25	0.9	1.6

= rate per 100 000

Table A1.2 Age standardised mortality rates and ratios for COAD in Indigenous Australians

Condition	State/ Territory	Year(s)	Age standardised mortality rates Indigenous males*	Age standardised mortality rates Indigenous females*	Age standardised mortality rates Indigenous people both sexes	Age standardised mortality ratio males	Age standardised mortality ratio females	Age standardised mortality ratio both sexes
COAD	NT (Dempsey & Condon, 1999)	1991 1995	212	199		4.3	10.7	
COAD	Qld (Health Information Centre, 2000) remote communities	1992-1995	-	-	136			6.5
COAD	SA, WA, NT (Anderson et al., 1996)	1992 1994	126	68		4.6	7.9	
COAD	NSW, SA, WA, NT (Bhatia & Anderson, 1995)	1991 1992	94	51		2.9	4.5	

*= per 100 000

Table A1.3 Age standardised mortality rates and ratios for other respiratory disease in Indigenous Australians

Condition	State/ Territory	Year(s)	Age standardised mortality rates Indigenous males*	Age standardised mortality rates Indigenous females*	Age standardised mortality ratio males	Age standardised mortality ratio females
Chronic bronchitis	WA (Unwin et al., 1994)	1989 1991	40	16	2.0	3.5
Pneumonia and influenza	NT (Dempsey & Condon, 1999)	1991 1995	160	132	13.9	15.1
Pneumonia	SA, WA, NT (Anderson et al., 1996)	1992 1994	153	53	19.2	7.1
Pneumonia	NSW, SA, WA, NT (Bhatia & Anderson, 1995)	1991 1992	94	55	11.6	8.4
Asthma	NT (Dempsey & Condon, 1999)	1991 1995	6	20	1.4	4.5
Asthma	SA, WA, NT (Anderson et al., 1996)	1992 1994	15	14	4.0	5.1
Asthma	NSW, SA, WA, NT (Bhatia & Anderson, 1995)	1992 1994	10	7	2.4	2.5

*= rate per 100 000

Table A1.4 Age standardised hospitalisation rates and ratios for other respiratory disease in Indigenous Australians

Condition	State/ Territory	Year(s)	Age standardised hospitalisation rates Indigenous males*	Age standardised hospitalisation rates Indigenous females*	Age standardised hospitalisation rates Indigenous people, both sexes	Age standardised hospitalisation ratio males	Age standardised hospitalisation ratio females	Age standardised hospitalisation ratio both sexes
All respiratory diseases	NSW (Armstrong, 1979)	1979			139			4.8
Pneumonia	NSW (Armstrong, 1979)	1977			54			7.4
Pneumonia	WA (Unwin et al., 1994)	1989 1991	38	11				
Bronchitis, emphysema or asthma	NSW (Armstrong, 1979)	1977			45			5.3
Chronic bronchitis	WA (Unwin et al., 1994)	1989 1991	40	16		4.5	8.8	

* per 1000 hospitalisations

Table A1.5 Age standardised mortality rates and ratios for cardiovascular disease in Indigenous Australians

Condition	State/ Territory	Year(s)	Age standardised mortality rates Indigenous males*	Age standardised mortality rates Indigenous females*	Age standardised mortality rates Indigenous people both sexes	Age standardised mortality ratio males	Age standardised mortality ratio females	Age standardised mortality ratio both sexes
Circulatory diseases	NT (Dempsey & Condon, 1999)	1991 1995	723	513		2.1	2.1	
All circulatory diseases	NT, SA, WA (Anderson et al., 1996)	1992 1994	705	603		3.1	3.6	
Cardio-vascular diseases	NSW, NT, SA, WA (Bhatia & Anderson, 1995)	1991 1992	519	423		2.1	2.2	
Ischaemic heart disease	NT (Dempsey & Condon, 1999)	1979 1991	321	177		1.5	1.4	
Ischaemic heart disease	Qld (Health Information Centre, 2000) people from remote communities	1992 1995			107			5.1
Ischaemic heart disease	WA (Unwin et al., 1994)	1989 1991	99	46		3.2	6.8	
Ischaemic heart disease	NT, SA, WA (Anderson et al., 1996)	1992 1994	391	249		2.9	2.9	
Hypertensive disease	NT (Dempsey & Condon, 1999)	1991 1995	56	56		10.3	9.1	
Hypertensive disease	NT, SA, WA (Anderson et al., 1996)	1992 1994	32	42		10.6	10.6	
Cerebro-vascular disease	NT (Dempsey & Condon, 1999)	1991 1995	171	129		2.6	1.9	
Cerebro-vascular disease	NT, SA, WA (Anderson et al., 1996)	1992 1994	186	201		3.6	3.7	

*= per 100 000

Table A1.6 Age standardised morbidity rates and ratios for cardiovascular disease in Indigenous Australians

Condition	State/ Territory	Year(s)	Age standardised hospitalisation rates Indigenous males*	Age standardised hospitalisation rates Indigenous females*	Age standardised hospitalisation rates both sexes*	Age standardised hospitalisation ratio males	Age standardised hospitalisation ratio females	Age standardised hospitalisation ratio both sexes
All cardio-vascular disease	NSW (Armstrong, 1979)	1977			29			1.2
Ischaemic heart disease	NSW (Armstrong, 1979)	1977			6.5			1.0
Ischaemic heart disease caused by tobacco	WA (Unwin et al., 1994)	1989 91	4.0	2.1		1.9	3.7	
Hypertensive disease	NSW (Armstrong, 1979)	1977			10			3.6
Cerebro-vascular disease	NSW (Armstrong, 1979)	1977			2			0.6

* per 1000 hospitalisations

APPENDIX 2 – Policies, plans and strategies for tobacco programs for Indigenous people

Many organisations have expressed the need for smoking cessation programs for Indigenous people.

Table A2: Policies, plans and strategies for tobacco programs for Indigenous people

Organisation	Year	Statement
National Tobacco Strategy (CDHAC 1999)	2000	<p>Key strategies include:</p> <p>Conduct a national audit of smoking initiatives for Aboriginal and TSI people.</p> <p>Work with targeted population groups to ascertain the social, cultural and economic factors that influence uptake and continued use of tobacco.</p> <p>Trial NRT for Aboriginal and TSI people in urban, rural and remote settings.</p> <p>Implement action research by Aboriginal and TSI communities to inform best practice in smoking cessation programs.</p> <p>Through consultation with targeted population groups identify current level of awareness of health risks associated with environmental tobacco smoke and social and cultural issues that influence exposure to environmental tobacco smoke.</p> <p>Promulgate best practice in strategies to improve awareness of environmental tobacco smoke in targeted population groups.</p> <p>Indigenous Australians are one of the key target groups to be included in other strategies (strengthening community action, promotion cessation, reducing availability and supply of tobacco, reducing tobacco promotion, regulating tobacco, reducing exposure to environmental tobacco smoke).</p>
The National Aboriginal Health Strategy (National Aboriginal Health Strategy Working Party, 1989, 133 4)	1989	<p>Specific objectives</p> <p>Smoking prevention and reduction:</p> <ul style="list-style-type: none"> To encourage non-smokers, in particular young people, to remain non-smokers. To encourage, motivate and help those who smoke, to stop. <p>Specific strategies</p> <p>Smoking prevention and promotion.</p> <p>Educate children about the benefits of not smoking, using accepted Indigenous role models (sports persons, leaders etc.).</p> <p>For those who are smoking, provide specific advice, support and encouragement to cease (including self-help groups), develop culturally appropriate programs. AHWs, nurses and doctors may need special training to undertake this role.</p> <p>Encourage smoke-free zones in Indigenous services.</p> <p>Promote anti-smoking campaigns amongst Indigenous people.</p>
Tobacco Control Summit (A working group convened from the 2nd National Tobacco Control Summit held in Sydney in May 1995) (Andrews et al., 1996a)	1995	<p>The working group included Indigenous health promotion officers from around the country. Recommendations of the working group included the need for:</p> <ol style="list-style-type: none"> 1. Research into the role of tobacco use among Indigenous people 2. Training program for AHWs 3. Pilot tobacco control projects 4. National Indigenous people s tobacco control conference 5. Indigenous people s QUIT telephone counselling service

APPENDIX 3 – Health promotion materials about tobacco for Indigenous people

POSTERS

Author: Aboriginal Drug and Alcohol Council (SA) Inc (ADAC)

Year: Unknown

Title: Educating the community about substance misuse

Type of work: Poster

Publisher: Aboriginal Drug and Alcohol Council (SA) Inc

Description: A series of 5 x A3 colour glossy posters with paintings and drawings by children about alcohol, drugs and tobacco.

Contact details: ADAC, 53 King William St, Kent Town SA 5067, ph 08 8362 0395, fax 08 8362 0327, website www.adac.org.au

Author: Asthma Foundation, NT

Year: 1997

Title: Smoking and your family

Type of work: Poster

Publisher: Asthma Foundation, NT

Description: An A2 full colour poster, featuring an Aboriginal health worker talking to 2 pregnant women about smoking and its effect on their babies. A second version of the poster features the same picture, but with empty speech bubbles to be filled in.

Contact details: Asthma Foundation, NT, PO Box 40596, Casuarina NT 0811, ph 08 8922 8817, fax 08 8922 8616, email asthmant@mpx.com.au

Author: Australian Medical Association

Year: 1998

Title: Kick the habit – give smoking the boot

Type of work: Poster

Publisher: Australian Medical Association

Description: An A2 full colour glossy poster showing 3 Aboriginal Australian football players promoting a non-smoking lifestyle.

Contact details: Australian Medical Association, 42 Macquarie St, Barton ACT 2600, ph 02 6270 5400, fax 02 6270 5499

Author: Centre for Education on Drugs and Alcohol (CEIDA)

Year: 1993

Title: Smokers – don't blow your life away

Type of work: Poster

Publisher: CEIDA

Description: An A2 full colour poster featuring Aboriginal art and messages about how smoking can affect the health of Aboriginal people.

Contact details: CEIDA, Private Bag 6, Rozelle NSW 2039, ph 02 9818 0444, website www.ceida.net.au

Author: Centre for Education on Drugs and Alcohol (CEIDA)

Year: Unknown

Title: Unknown

Type of work: Posters

Publisher: CEIDA

Description: A set of four posters designed for and by Aboriginal youth on smoking, heroin, alcohol and Serepax.

Contact details: CEIDA, Private Bag 6, Rozelle NSW 2039, ph 02 9818 0444, fax 02 9818 0441, website www.ceida.net.au

Author: Health Department of Western Australia (Aboriginal Health Promotions Branch)

Year: 1996

Title: Smoking – the poison that's killing our people

Type of work: Poster

Publisher: Health Department of Western Australia

Description: Colour poster

Contact details: Aboriginal Health Promotions Branch, PO Box 8172, Perth Business Centre WA 6849, ph 1300 135 130, fax 08 9222 2088, website www.public.health.wa.gov.au

Author: Health Department of Western Australia (Aboriginal Health Promotions Branch)

Year: Unknown

Title: Smoke is part of our culture – smoking is not

Type of work: Poster

Publisher: Health Department of Western Australia (Aboriginal Health Promotions Branch)

Description: Colour poster

Contact details: Aboriginal Health Promotions Branch, PO Box 8172, Perth Business Centre WA 6849, ph 1300 135 130, fax 08 9222 2088, website www.public.health.wa.gov.au

Author: Health Department of Western Australia (Aboriginal Health Promotions Branch)

Year: Unknown

Title: Smoking is Killing Our People, Our Culture, Our Spirit – Say Goodbye to Smokes

Type of work: Poster

Publisher: Health Department of Western Australia (Aboriginal Health Promotions Branch)

Description: Colour poster

Contact details: Aboriginal Health Promotions Branch, PO Box 8172, Perth Business Centre WA 6849, ph 1300 135 130, fax 08 9222 2088, website www.public.health.wa.gov.au

Author: Marr Mooditj Foundation Incorporated

Year: 1995

Title: Gnummari Wa – you won't go far – say goodbye to smokes

Type of work: Poster, part of kit containing health staff training manual, pamphlets and video

Publisher: Marr Mooditj Foundation Incorporated

Description: An A3 colour poster about what happens when a smoker quits, part of a kit for training health staff in giving advice to smokers about quitting. The kit contains the poster, a manual, pamphlets and video.

Contact details: Marr Mooditj Foundation Incorporated, 295 Manning Rd, Waterford WA 6052, ph 08 9351 9344, fax 08 9350 6830

Author: National Heart Foundation, Tiwi Health Board, Bagot community council

Year: 1999

Title: The Pongi Pongi (Tobacco) Book

Type of work: Posters

Publisher: National Heart Foundation

Description: Two full colour posters, one showing the effect of environmental smoke on children, and one showing the health effects of smoking cannabis.

Contact details: National Heart Foundation, NT Division, PO Box 4363, Darwin NT 0801, ph 08 8981 1966, fax 08 8941 0344

Author: NT Department of Health and Community Services

Year: 1993

Title: Smoking is bad for your heart

Type of work: Poster

Publisher: NT Department of Health and Community Services

Description: An A3 full colour poster showing messages about smoking drawn by high school students.

Contact details: Tobacco Action Project, Territory Health Services, Block 4, Royal Darwin Hospital, PO Box 40496, Casuarina NT 0811, ph 08 8922 7702, fax 08 8922 7768

Author: Queensland Health

Year: 1998

Title: Smoking harms your baby

Type of work: Poster

Publisher: Queensland Health

Description: An A2 two-colour poster showing a pregnant Indigenous woman smoking and how the smoke harms her baby.

Contact details: Queensland Health, GPO Box 48, Brisbane Qld 4870, ph 07 3234 1053, fax 07 3234 0659, website www.health.qld.gov.au

Author: Tobacco Action Project, Territory Health Services

Year: 1996

Title: When you smoke tobacco sickness goes into families' lungs and heart (passive smoking)

Type of work: Poster

Publisher: Territory Health Services

Description: An A2 full colour poster showing a pregnant woman smoking and the smoke reaching the foetus.

Contact details: Tobacco Action Project, Territory Health Services, Block 4, Royal Darwin Hospital, PO Box 40496, Casuarina NT 0811, ph 08 8922 7702, fax 08 8922 7768

Author: Tobacco Action Project, Territory Health Services

Year: 1998

Title: What cigarette smoking does to your body

Type of work: Poster

Publisher: Territory Health Services

Description: An A3 full colour poster showing how smoking affects the body; it 'speeds and narrows', 'clogs' and 'starves'.

Contact details: Tobacco Action Project, Territory Health Services, Block 4, Royal Darwin Hospital, PO Box 40496, Casuarina NT 0811, ph 08 8922 7702, fax 08 8922 7768

Author: Tobacco Action Project, Territory Health Services

Year: 1998

Title: Children's poster about tobacco

Type of work: Poster

Publisher: Territory Health Services

Description: An A3 full colour poster showing artwork about tobacco by school children from Milikapiti.

Contact details: Tobacco Action Project, Territory Health Services, Block 4, Royal Darwin Hospital, PO Box 40496, Casuarina NT 0811, ph 08 8922 7702, fax 08 8922 7768

Author: Tobacco Action Project, Territory Health Services

Year: 1998

Title: What cigarette smoking does to your body – quitting smoking – ten worries

Type of work: Poster

Publisher: Territory Health Services

Description: An A2 full colour poster showing the effects of giving up smoking, including 'nervous and cranky', and 'weight gain', and showing how long it takes for the poisons in tobacco to leave the body.

Contact details: Tobacco Action Project, Territory Health Services, Block 4, Royal Darwin Hospital, PO Box 40496, Casuarina NT 0811, ph 08 8922 7702, fax 08 8922 7768

FLIP CHARTS

Author: Apunipima – Cape York Health Council

Year: 1999

Title: Granny – why don't you smoke?

Type of work: Flip chart

Publisher: Apunipima – Cape York Health Council

Description: A 37 page A3 full colour flip chart made of cardboard with ring binding, designed by health workers, teachers and Indigenous students in the lower and middle years of primary school (preschool to grade 5), especially those who have not begun smoking. The flip chart is designed to be read or told to groups of children by health workers or teachers, although older children may be able to read the story themselves. The flip chart also contains extra information on smoking for teachers and activities for students to support the information and content of the story.

Contact details: Apunipima – Cape York Health Council, PO Box 2797, Cairns, Qld 4870, ph 07 4051 7450, fax 07 4051 7940, email apunipima@apunipima.org.au

Author: National Heart Foundation, Tiwi Health Board, Bagot community council

Year: 1999

Title: The Pongi Pongi (Tobacco) Book

Type of work: Flip chart

Publisher: National Heart Foundation

Description: An A3 full colour flip chart, laminated, with ring binding. The flip chart was developed by health staff and community members, and shows the health effects of smoking and shows how smokers can quit.

Contact details: National Heart Foundation, NT Division, PO Box 4363, Darwin NT 0801, ph 08 8981 1966, fax 08 8941 0344

VIDEOS

Author: Asthma Foundation, NT

Year: 1997

Title: Healthy living – smoking and your family

Type of work: Video

Publisher: Asthma Foundation, NT

Description: A 6 minute 56 second video about environmental smoke and its effect on families, featuring athlete Nova Peris-Kneebone. The video includes a discussion of the effect of smoking in pregnancy.

Contact details: Asthma Foundation, NT, PO Box 40596, Casuarina NT 0811, ph 08 8922 8817, fax 08 8922 8616, email asthmant@mpx.com.au

Author: Centre for Education on Drugs and Alcohol (CEIDA)

Year: 1998

Title: Say no to smokes

Type of work: Video

Publisher: CEIDA

Description: A video and manual about quitting, for school students and for use with young people in community settings.

Contact details: CEIDA, Private Bag 6, Rozelle NSW 2039, ph 02 9818 0444, website www.ceida.net.au

Author: Marr Mooditj Foundation Incorporated

Year: 1995

Title: Gnummari Wa – you won't go far – say goodbye to smokes

Type of work: Video

Publisher: Marr Mooditj Foundation Incorporated

Description: A video, part of a kit for training health staff in giving advice to smokers about quitting. The kit contains a poster, a manual, pamphlets and video.

Contact details: Marr Mooditj Foundation Incorporated, 295 Manning Rd, Waterford WA 6052, ph 08 9351 9344, fax 08 9350 6830

Author: National Heart Foundation

Year: 1998

Title: Listen to your heart

Type of work: Video

Publisher: National Heart Foundation

Description: A video showing how smoking, lack of exercise and eating fatty foods can cause heart attacks. The video features boxer James Swan.

Contact details: National Heart Foundation, NT Division, PO Box 4363, Darwin NT 0801, ph 08 8981 1966, fax 08 8941 0344

Author: NSW Health Department
Year: 1992
Title: Burning poison
Type of work: Video
Publisher: NSW Health Department
Description: 10 minute video about giving up smoking.
Contact details: Aboriginal Health Promotion Section, NSW Health Department, 73 Miller St, North Sydney NSW 2060, ph 02 9391 9550

Author: Wuchopperen Medical Service
Year: Unknown
Title: Murris Don't Need Durries
Type of work: Video
Publisher: Wuchopperen Medical Service
Description: 10 minute video about the benefits of giving up smoking.
Contact details: Wuchopperen Medical Service, PO Box 1268, Cairns, Queensland 4870, ph 07 4080 1000, fax 07 4032 4962

PAMPHLETS

Author: Aboriginal Drug and Alcohol Council of SA Inc (ADAC)
Year: Unknown
Title: Unknown
Type of work: Pamphlet
Publisher: Aboriginal Drug and Alcohol Council of SA Inc (ADAC)
Description: Pamphlet listing the long term/short term effects of tobacco and alcohol.
Contact details: ADAC, 53 King William St, Kent Town SA 5067, ph 08 8362 0395, fax 08 8362 0327, website www.adac.org.au

Author: Anti-Cancer Council of Victoria
Year: 1997
Title: Quit because you can
Type of work: Pamphlet
Publisher: Anti-Cancer Council of Victoria
Description: A 32 page A5 full colour pamphlet showing how to quit smoking. The pamphlet is mainly directed at non-Aboriginal people; however there is one character who appears to be Aboriginal who gives his story about quitting.
Contact details: State and territory health department health promotion units

Author: Health Department of WA (Aboriginal Health Promotions Branch)
Year: Unknown
Title: Aboriginal people and tobacco smoking
Type of work: Fact sheet
Publisher: Aboriginal Health Promotions Branch, Health Department of WA
Description: Fact sheet about Aboriginal people and tobacco smoking.
Contact details: Aboriginal Health Promotions Branch, Health Department of WA, PO Box 8172, Perth Business Centre WA 6849, ph 1300 135 130, fax 08 9222 2088, website www.public.health.wa.gov.au

Author: Health Department of WA (Aboriginal Health Promotions Branch)
Year: Unknown
Title: Say Goodbye to Smokes – A Guide to Quitting Smoking, and Say Goodbye to Smokes – the Health Effects of Smoking
Type of work: Pamphlets
Publisher: Aboriginal Health Promotions Branch, Health Department of WA
Description: Two pamphlets about the health effects of smoking and giving up smoking.
Contact details: Aboriginal Health Promotions Branch, Health Department of WA, PO Box 8172, Perth Business Centre WA 6849, ph 1300 135 130, fax 08 9222 2088, website www.public.health.wa.gov.au

Author: Koori Health Services
Year: Unknown
Title: Smoking and your heart
Type of work: Pamphlet
Publisher: Aboriginal Health Branch, NSW Department of Health
Description: An A5 three-colour pamphlet for Indigenous people, discussing the effect of smoking on the heart, and giving information on ways to give up smoking.
Contact details: NSW Health Department, Locked Mail Bag 961, North Sydney NSW 2059, ph 02 9391 9496

Author: Marr Mooditj Foundation Incorporated
Year: 1995
Title: Gnummari Wa – you won't go far – say goodbye to smokes
Type of work: Pamphlet
Publisher: Marr Mooditj Foundation Incorporated
Description: A pamphlet, part of a kit for training health staff in giving advice to smokers about quitting. The kit contains a poster, a manual, pamphlets and a video.
Contact details: Marr Mooditj Foundation Incorporated, 295 Manning Rd, Waterford WA 6052, ph 08 9351 9344, fax 08 9350 6830

Author: Nguiu Health Centre
Year: 1998
Title: Smoking cigarettes – time to leave them
Type of work: Pamphlet
Publisher: Nguiu Health Centre
Description: Double sided A4 pamphlet in black and white, including information on the health effects of smoking and how to quit. The pamphlet is no longer available.
Contact details: Pamphlet no longer available.

Author: NSW Health Department
Year: Unknown
Title: Passive smoking – if you think you're not affected because you don't smoke...think again!
Type of work: Pamphlet
Publisher: NSW Health Department
Description: An A4 two-colour pamphlet discussing the health effects of environmental smoke.
Contact details: NSW Health Department, Locked Mail Bag 961, North Sydney NSW 2059, ph 02 99391 9496

Author: Queensland Health
Year: 1998
Title: Smoking harms your baby
Type of work: Pamphlet
Publisher: Queensland Health
Description: An A5 two-colour pamphlet showing a pregnant Indigenous woman and the effect of environmental smoke.
Contact details: Queensland Health, GPO Box 48, Brisbane Qld 4870, ph 07 3234 1053, fax 07 3234 0659, website www.health.qld.gov.au

Author: Tobacco Action Project, Territory Health Services
Year: 1998
Title: Smokers – don't blow your life away
Type of work: Pamphlet
Publisher: Territory Health Services
Description: An A4 black and white pamphlet about the health effects of smoking.
Contact details: No longer available. Tobacco Action Project, Territory Health Services, Block 4, Royal Darwin Hospital, PO Box 40496, Casuarina NT 0811, ph 08 8922 7702, fax 08 8922 7768

Author: Territory Health Services, Tiwi Health Board
Year: 1998
Title: Quit because you can
Type of work: Pamphlet
Publisher: Territory Health Services
Description: An A4 double-sided full colour pamphlet giving information on 'Deciding to quit', 'Quitting' and 'Staying a non-smoker'. Developed as part of the NT Coordinated Care Trials.
Contact details: Tiwi Health Board, GPO Box 4347, Darwin NT 0810, ph 08 8941 5331, fax 08 8941 5338, email tiwihealth@taunet.net.au

Author: Tobacco Action Project, Territory Health Services
Year: 1998
Title: Quit smoking – it's killing our people – Aboriginal Australians
Type of work: Pamphlet
Publisher: Territory Health Services
Description: An A5 two-colour pamphlet about the health effects of smoking for Indigenous Australians, including a discussion on why tobacco is not part of traditional life.
Contact details: Tobacco Action Project, Territory Health Services, Block 4, Royal Darwin Hospital, PO Box 40496, Casuarina NT 0811, ph 08 8922 7702, fax 08 8922 7768

Author: Victorian Smoking and Health Program
Year: 1991
Title: The Koorie Can Quit Book
Type of work: Pamphlet
Publisher: Victorian Smoking and Health Program
Description: A very colourful, positive, easy to read A5 booklet on giving up smoking.
Contact details: Victorian Smoking and Health Program, PO Box 888, Carlton South Vic 3053 or CEIDA, Private Bag 6, Rozelle NSW 2039, ph 02 9818 0444, fax 02 9818 0441, website www.ceida.net.au

BOOKS AND BOOKLETS

Author: Danila Dilba Medical Service
Year: 1999
Title: Giving up the smokes
Type of work: Book
Publisher: Danila Dilba Medical Service
Description: An A4 book containing long interviews with Aboriginal people who had given up smoking, talking about why and how they quit.
Contact details: Danila Dilba Medical Service, PO Box 2125, Darwin NT 0801, ph 08 8936 1717, fax 08 8941 3542

Author: Gill, J and Inkamala, M, Tobacco Action Project, Territory Health Services

Year: 1997

Title: Lung story

Type of work: Book

Publisher: Territory Health Services

Description: An A4 black and white ring-bound book, showing traditional art about tobacco.

Contact details: Tobacco Action Project, Territory Health Services, Block 4, Royal Darwin Hospital, PO Box 40496, Casuarina NT 0811, ph 08 8922 7702, fax 08 8922 7768

Author: Tobacco Action Project, Territory Health Services

Year: 1997

Title: Foetal tobacco syndrome

Type of work: Booklet

Publisher: Territory Health Services

Description: An A4 black and white ring-bound book about tobacco smoking and the effect of smoking on pregnant women.

Contact details: Tobacco Action Project, Territory Health Services, Block 4, Royal Darwin Hospital, PO Box 40496, Casuarina NT 0811, ph 08 8922 7702, fax 08 8922 7768

OTHER HEALTH PROMOTION MATERIALS

Author: Health Department of Western Australia

Year: 1997

Title: Say goodbye to smokes

Publisher: Health Department of Western Australia

Type of Work: Sticker

Description: Red and yellow sticker showing a snake.

Contact details: Aboriginal Health Promotions Branch, Health Department of WA, PO Box 8172, Perth Business Centre WA 6849, ph 1300 135 130, fax 08 9222 2088, website www.public.health.wa.gov.au

Author: Kimberley Public Health Unit

Year: 1998

Title: Jabby Don't Smoke

Type of work: Video, manual, posters, cassette, television advertisements

Publisher: Kimberley Public Health Unit

Description: A kit of materials for teaching smoking prevention to Indigenous children in remote communities in Western Australia, involving live performances using puppets, a video, and a mass media campaign (television advertisements).

Contact details: Kimberley Public Health Unit, PO Box 525, Broome WA 6725, ph 08 9192 9377, fax 08 9192 9380

Author: Maningrida Health Centre, Maningrida School, Territory Health Services

Year: 1997

Title: The Maningrida 'Be Smoke Free' Project

Type of work: CD-ROM

Publisher: Territory Health Services

Description: A CD-ROM developed at Maningrida community, designed for use by students 5–17 years, featuring athlete Nova Peris-Kneebone.

Contact details: Maningrida Health Centre, Maningrida NT 0822, ph 08 89 795 930

Author: QUIT Victoria

Year: Unknown

Title: Smoking stickers

Publisher: QUIT Victoria

Type of Work: Stickers

Description: Set of 4 stickers about being smoke-free in the home and car, in red, black and yellow.

Contact details: QUIT Victoria, 25 Rathdowne St, Carlton South Vic 3053, ph 03 9663 7777, fax 03 9663 7761

Author: Territory Health Services

Year: 1997

Title: Lung Story

Publisher: Territory Health Services

Type of Work: Felt board

Description: A large fold-up portable feltboard using traditional art to show the effect of tobacco on the lungs and respiratory system.

Contact details: Tobacco Action Project, Territory Health Services, Block 4, Royal Darwin Hospital, PO Box 40496, Casuarina NT 0811, ph 08 8922 7702, fax 08 8922 7768

Author: Tiwi Coordinated Care Trials

Year: 1998

Title: Short wind sickness

Publisher: Tiwi Health Board

Type of Work: Pamphlet, recall chart

Description: An A4 one-sided full colour pamphlet/ recall chart featuring a colour picture of a man smoking showing the effects of smoking, including 'cancer, high blood pressure, poison gas, heart attacks and arsenic poison'. The pamphlet also features a recall chart to remind people with respiratory problems to visit the health centre for a review.

Contact details: Tiwi Health Board, GPO Box 4347, Darwin NT 0810, ph 08 8941 5331 fax 08 8941 5338, email tiwihealth@taunet.net.au

TRAINING MANUALS FOR HEALTH PROFESSIONALS

Author: Marr Mooditj Foundation Incorporated

Year: 1995

Title: Gnummari Wa – You won't go far – Say goodbye to smokes

Publisher: Marr Mooditj Foundation Incorporated and Health Department of Western Australia

Type of Work: Health staff training manual

Description: A manual about tobacco for health staff working with Aboriginal clients. It is accompanied by a kit which includes a poster, pamphlets and a video.

Contact details: Marr Mooditj Foundation Incorporated, 295 Manning Rd, Waterford WA 6052, ph 08 9351 9344, fax 08 9350 6830

Author: National Heart Foundation, Tiwi Health Board, Bagot community council

Year: 1999

Title: The Pongi Pongi (Tobacco) Book

Publisher: National Heart Foundation

Type of Work: Health staff training manual

Description: A manual about giving a brief intervention for health staff working with Aboriginal clients. It is accompanied by a kit which includes posters, a flip chart and pamphlets. The manual is designed to be used as part of a 1.5 hour training module.

Contact details: National Heart Foundation, PO Box 4363, Darwin NT 0801, ph 08 8981 1966, fax 08 8941 0344, email nt@heartfoundation.com.au.

TELEVISION ADVERTISEMENTS

Author: Kimberley Public Health Unit

Year: 1998

Title: Jabby Don't Smoke

Type of work: Television advertisement

Publisher: Kimberley Public Health Unit

Description: Part of a kit of materials for teaching smoking prevention to Indigenous children in remote communities in Western Australia, involving live performances using puppets, a video, and a mass media campaign (television advertisements).

Contact details: Kimberley Public Health Unit, PO Box 525, Broome, WA 6725, ph 08 9192 9377, fax 08 9192 9380

Author: Territory Health Services

Year: 1998

Title: Unknown

Publisher: Territory Health Services

Type of Work: Television advertisements

Description: A television advertisement about an Aboriginal couple at a supermarket trying to decide whether to buy cigarettes or food.

Contact details: Tobacco Action Project, Territory Health Services, Block 4, Royal Darwin Hospital, PO Box 40496 Casuarina NT 0811, 08 8922 7702, fax 08 8922 7768

EXAMPLES OF HEALTH PROMOTION MATERIALS ON OTHER TOPICS INCLUDING INFORMATION ON TOBACCO

Author: Asthma Foundation, NT

Year: 2000

Title: Short Wind

Type of work: Kit, including flip chart, stickers, T-shirt, calico carry bag and laminated poster.

Publisher: Asthma Foundation, NT

Description: A kit of health promotion materials promoting asthma awareness and treatment, including information on smoking.

Contact details: Asthma Foundation, NT, PO Box 40596, Casuarina NT 0811, ph 08 8922 8817, fax 08 8922 8616, email asthmant@mpx.com.au

Author: Cancer Council NT

Year: 1998

Title: Staying Strong

Type of work: Video and poster

Publisher: Cancer Council NT

Description: A video for Indigenous teenagers, which promotes healthy lifestyle choices. The video features students from Kormilda College who perform comedy, drama, rap and rock music to explore some of the health and social issues that confront their lives.

Contact details: Cancer Council NT, PO Box 40596, Casuarina NT 0811, ph 08 8927 4888, fax 08 8927 4990, email uvstop@cancernt.org.au

Author: Diabetes Centre, Royal Prince Alfred Hospital

Year: 1994

Title: Diabetes – Looking after your blood vessels

Publisher: Diabetes Centre, Royal Prince Alfred Hospital

Type of Work: Pamphlet

Description: Pamphlet about diabetes, includes significant information about tobacco, and advice on giving up smoking.

Contact details: Diabetes Centre, Royal Prince Alfred Hospital, Missendon Rd, Camperdown NSW 2050, ph 02 9515 6111

Author: National Heart Foundation
Year: 2000
Title: Heart Story
Publisher: National Heart Foundation
Type of Work: Flip chart
Description: A flip chart designed for Aboriginal health workers and patients to assist them to gain a better understanding of heart disease prevention and management, including information about tobacco.
Contact details: National Heart Foundation, PO Box 4363, Darwin NT 0801, ph 08 8981 1966, fax 08 8941 0344, email nt@heartfoundation.com.au

Author: National Heart Foundation
Year: 1999
Title: Listen to Your Heart
Publisher: National Heart Foundation
Type of Work: Curriculum package containing video and resource book
Description: A curriculum package designed for the Northern Territory Year 8–10 health curriculum, covering the topics of lifestyle choices, diseases and cardiovascular disease, including information on tobacco.
Contact details: National Heart Foundation, PO Box 4363, Darwin NT 0801, ph 08 8981 1966, fax 08 8941 0344, email nt@heartfoundation.com.au

Author: SIDS Australia
Year: 1999 (2nd edition)
Title: Taking care of baby
Publisher: SIDS Australia
Type of Work: Kit, including video, poster and pamphlet
Description: Information included in the kit describes risk factors for Sudden Infant Death Syndrome (SIDS) (including sleeping positions, over-heating, smoking), targeted at Indigenous people.
Contact details: SIDS Australia, NT, Rapid Creek Shops, Shop 19, Trower Rd, Rapid Creek NT 0811, ph 08 8948 5311, fax 08 8948 5244, website www.sidsaustralia.org.au

Author: Territory Health Services
Year: 1997
Title: Strong Women Strong Baby Strong Culture program
Publisher: Territory Health Services
Type of Work: Health promotion program
Description: Program involves the promotion of good nutrition and no smoking during pregnancy, delivered by older women in Indigenous communities. Health promotion material includes some information on the effect of tobacco on the health of Indigenous infants. Health promotion resources include a flip chart.
Contact details: Strong Women Strong Baby Strong Culture, Territory Health Services, Block 4, Royal Darwin Hospital, PO Box 40496, Casuarina NT 0811

Author: Territory Health Services
Year: 1999
Title: The Public Health Bush Book
Publisher: Territory Health Services
Type of Work: Book (two volumes)
Description: Vol 1 – Strategies and Resources, Vol 2 – Facts and Approaches to 3 key public health issues. This resource was designed to support health care providers in remote Aboriginal communities in the NT.
Contact details: Senior Aboriginal Policy Officer, Territory Health Services, PO Box 40596, Casuarina NT 0811, ph 08 8999 2889, fax 08 8999 2420, website www.nt.gov.au/nths

Author: Walgett Aboriginal Medical Service Cooperative Ltd
Year: –
Title: Talking
Publisher: Walgett Aboriginal Medical Service Cooperative Ltd
Type of Work: Video
Description: Video about men's health. Issues covered include alcohol and tobacco abuse, domestic violence, community development, environmental health and safe sex.
Contact details: Walgett Aboriginal Medical Service Cooperative Ltd, PO Box 396, Walgett NSW 2832, ph 02 6828 1611, fax 02 6828 1201

WEBSITES

Title: Curtin University of Technology National Drug Research Institute
Indigenous Australian Alcohol and Other Drug Databases
Description: Contains a bibliographical database with references to over 600 books, and a projects database with descriptions of over 300 recent and current projects.
Web address: <http://www.db.ndri.curtin.edu.au:80/index.html>

Title: Aboriginal Drug and Alcohol Council (SA) Inc
Description: Contains information about current programs in SA, including information about tobacco programs.
Web address: <http://www.adac.org.au/>

Title: Australian Indigenous HealthInfoNet/ National Aboriginal and Torres Strait
Islander Health Clearinghouse
Description: A database of health research projects on Indigenous health issues, including tobacco issues.
Web address: <http://www.healthinfonet.ecu.edu.au/>

APPENDIX 4 – Major tobacco programs for Indigenous people

The following tables include information about major tobacco programs for Indigenous people. The tables were compiled in January 2001.

National/ State/ Territory Programs	Program	Evaluation	Funding	Duration	Contact
Commonwealth Department of Health and Aged Care (CDHAC)	<u>Contract with National Aboriginal Community Controlled Health Organisations</u> to: Analyse key issues in tobacco control identified by Aboriginal communities and those who work with Aboriginal communities. Appraise programs identified as having some efficacy and best practice features in Aboriginal settings.	Contract involves production of a report that will include recommendations and next steps for practical action in tobacco control for Aboriginal communities under the National Tobacco Strategy	\$218 000 A	August 2000 October 2001	Tobacco project officer NACCHO PO Box 168 Deakin West ACT 2601 ph 02 6282 7513 fax 02 6282 7516
	<u>CDHAC/ National Heart Foundation/ Menzies School of Health Research/ various Aboriginal communities</u> . <u>NRT Project</u> : The aim of this project is to evaluate the acceptability of NRT as a smoking cessation aid for Indigenous smokers.	Evaluation has commenced	\$10 000, and additional funding from National Heart Foundation, Menzies School of Health Research and Smith-Kline-Beecham	2000 2001	Director NHF PO Box 4363 Darwin NT 0801 ph 08 8981 1966 fax 08 8941 0344
New South Wales	<u>NSW Health</u> initiatives to address tobacco-related harm amongst youth in Aboriginal and Torres Strait Islander communities. Seven projects funded under the Public Health Outcome Funding Agreement, including: <u>Hunter Area Health Service</u> Objectives: 1. Determine community attitudes to ATSI youth smoking in 2 Hunter communities. 2. Identify barriers to reducing smoking in ATSI youth. 3. Identify potential solutions to reduce smoking in ATSI youth. 4. Develop and implement an intervention to reduce smoking in ATSI youth based on consultation/recommendations. Progress: Focus groups have been run with youths and there will also be general community consultation. Intervention to be designed based on the results of these discussions.	Evaluation has commenced	\$175 000 (\$25 000 per project) Funded under the Public Health Outcome Funding Agreement	1999 2001	Project Manager Hunter Centre for Health Advancement Hunter Area Health Service Locked Bag 10 Wallsend NSW 2287 ph 02 4924 6392 fax 02 4924 6212

	<p><u>Central Coast Area Health Service</u> Objectives: To provide local Aboriginal youth with knowledge of the manipulative and calculated marketing practices of the tobacco industry. To provide local Aboriginal youth with an opportunity and the resources to counter the promotion of tobacco within the community.</p> <p>Progress: A reference group of Central Coast Aboriginal youth has been formed and they have conducted focus groups to obtain information on young people s attitudes towards the tobacco industry. Local Aboriginal artists have been approached to submit ideas and one has been selected as suitable and has been forwarded to DOH for approval.</p>				Aboriginal Health Promotion Officer Health Promotion Unit Central Coast Area Health Service PO Box 361 Gosford NSW 2250 ph 02 4349 4869 fax 02 4349 4866
	<p><u>South Western Sydney Area Health Service</u> Objectives: Determine needs of ATSI youth in terms of tobacco education. Improve awareness of ATSI youth of tobacco-related harm. Provide ATSI youth with the opportunity to be involved in the development of education products relevant to them. Provide mainstream and Aboriginal services in SWS with appropriate products. Reduce the amount of tobacco-related harm experienced by ATSI youth. Reduce uptake of smoking in ATSI youth.</p> <p>Progress: A working group has been established comprising reps from each Youth Health Team and the Area Tobacco Control Coordinator. A literature review has been conducted, and a process has been formulated for engaging young people using discussion groups at youth health centres to generate ideas for products .</p>				Tobacco Control Coordinator Health Promotion Unit South Western Sydney Area Health Service Hugh Jardine Building Liverpool Hospital Locked Bag 7017 Liverpool BC NSW 1871 ph 02 9828 5911 fax 02 9828 5905
	<p><u>Central Sydney Area Health Service</u> Objectives: To build partnerships between the Central Sydney TAT and Indigenous communities and youth services. To identify needs and determine priorities in tobacco control for Indigenous youth. To increase brief intervention skills in smoking cessation among Indigenous health workers.</p>				Senior Health Promotion Officer Health Promotion Unit, Central Sydney Area Health Service Level 4, Queen Mary Building Grose Street Camperdown NSW 2050 ph 02 9515 3350 fax 02 9515 3351

	<p><u>Far West Area Health Service</u> Objectives: Provide a drug- and tobacco-free environment during the school holidays as an intervention against negative behaviours. Increase awareness among participants and their peers of the effects of tobacco intake and ETS. Use the ideas, understanding and experiences of young people regarding tobacco to inform the development of issues-based physical theatre pieces. Create a video documenting this process, which explores the social, cultural and economic factors that influence uptake on health and the value of cessation.</p> <p>Progress: Intensive Tobacco Free Performance Camps were held in four target towns Wilcannia, Menindee, Ivanhoe and Broken Hill. They provided young people with a drug-free environment during the school holidays, linked them to health workers, offered them experiences with performance skills that allowed them to express their opinions on issues that affect them, got the opportunity to try things that they usually wouldn't such as video work and singing, inspired them to want to read and write through use of music like Karaoke and hip hop workshops.</p>				<p>Project Officer Maari Ma Health Aboriginal Corporation PO Box 339 Broken Hill NSW 2880 ph 08 8087 4488 fax 08 8087 2202</p>
	<p><u>Greater Murray Area Health Service</u> Objectives: Sponsor local sporting teams/clubs/associations to become advocates for smoke-free environments. Increase physical activity opportunities for ATSI young people. Promote smoke-free sport among the ATSI community.</p> <p>Progress: The project builds on an existing ATSI passive smoking campaign partnered by Riverina Medical and Dental Aboriginal Corp, Greater Murray Drug & Alcohol, Health Promotion, Aboriginal Health Education Officers, Aboriginal Health Program Manager, Wagga Wagga Aboriginal Heart Care Program, NSW Cancer Council and Wagga Wagga Wiradjuri Elders. The project is being piloted in Wagga Wagga.</p>				<p>Area Coordinator Tobacco Prevention Greater Murray Area Health Service PO Box 503 Albury NSW 2640 ph 02 6058 1700 fax 02 6058 1737</p>

	<p><u>Southern Area Health Service</u> Objectives: Provide a range of fun interactive education sessions with ATSI young people re: tobacco use/harm. Facilitate a process whereby ATSI youth are able to generate a number of different strategies and ideas they think would be effective in promoting tobacco-related risks to their peers. Facilitate workers and ATSI youth working together to produce these results. Collect information re: the understanding ATSI youth have of tobacco use amongst their peers. Conduct an anti-smoking education program for ATSI youth. Increase awareness of/ access to appropriate existing smoking cessation services. Develop a database to collate information re: tobacco use amongst ATSI youth.</p> <p>Progress: The project working group has developed a project implementation kit to be used at each of the three sites Karabar High School Cottage, Yass Youth Centre and 3 high schools in Eurobodalla. The kit contains all core data and evaluation information, proposed process and some tools and resources to assist in running the program.</p>				<p>Youth Development and Advocacy Officer Health Services Development Southern Area Health Service PO Box 1845 Queanbeyan NSW 2620 ph 02 6299 6199 fax 02 6299 6363</p>
	<p><u>Illawarra Area Health Service Aboriginal Health Workers and the National Heart Foundation of Australia (NSW Division)</u> The aim of the project is two-fold. Firstly to describe the processes of working with Aboriginal health workers (AHWs) to enable smoking cessation and to measure if smoking rates reduce at 6 and 12 months after tobacco training. Secondly, to facilitate the professional development of interested Aboriginal health workers to address tobacco addiction and offer cessation programs within their communities. Intervention plan: To provide smoking cessation assistance for self-selected (ie voluntary) Aboriginal health workers and other self-selected Aboriginal people. To train Aboriginal health workers in the provision of smoke-free advice. This training will not be mandatory for all AHWs. To advocate for tobacco to be prioritised as an issue at the Aboriginal Medical Service and within Aboriginal Health Plans of Area Health Services.</p>				<p>Heart Foundation C/- Division of Population Health and Planning IAHS Locked Bag 9 Unanderra Delivery Centre NSW 2526 ph 02 4275 4630 fax 02 4275 4611</p>

Northern Territory	<p><u>Territory Health Services Tobacco Action Project</u> Aboriginal populations are identified as a primary target group within the NT Tobacco Strategic Plan 2000-2005. Past initiatives include: Maningrida 'Be Smoke-free' CD-ROM project and also involved a song competition and smoke-free concert. Development of 2 Indigenous television commercials on the health effects of smoking, broadcast on BRACS, Imparja and Channel 8. 'Giving up the smokes', a book of interviews with Aboriginal ex-smokers, produced by Danila Dilba Aboriginal Medical Service. The Lung Story a feltboard for education on tobacco issues, banners and posters developed in Central Australia.</p> <p>Territory Health Services Tobacco Action Project distributes incentive funds for Aboriginal communities so that they can address tobacco issues. Projects that have been funded so far include: 1. Smoke-free areas project 2. Several sports sponsorship projects Aboriginal health promotion officers also conduct training for health staff in quit techniques, develop health promotion material and are currently developing a quit workbook for people considering quitting.</p>	<p>Evaluation complete Evaluation has commenced Evaluation has commenced Evaluation complete</p> <p>Evaluation has commenced</p>	<p>\$500 000 annually for Tobacco Action Project (which includes Indigenous and non-Indigenous projects), including funds for one Aboriginal health promotion officer dedicated to tobacco issues, and \$21 000 of incentive funds annually.</p>	<p>Ongoing</p> <p>Ongoing</p>	<p>Health Promotion Officer Tobacco Action Project, Territory Health Services PO Box 41096 Casuarina NT 0811 ph 08 8922 7702 fax 08 8922 7768</p>
	<p><u>National Heart Foundation/ Tiwi Health Board/ Bagot/ Menzies School of Health Research - The Tobacco (Pongi Pongi) Book</u> involved: Consultation with the community about tobacco issues. Development of health promotion materials. Development and pilot of training manual and module for health staff.</p>	<p>Evaluation has commenced</p>		<p>1999-2001</p>	<p>National Heart Foundation, NT Division PO Box 4363 Darwin NT 0801 ph 08 8981 1966 fax 08 8941 0344</p>
Queensland	<p><u>Queensland Health 'Indigenous Tobacco Control Project'</u> includes: Events sponsorship program to raise awareness of tobacco as a health issue. Development of workplace smoke-free policies and guidelines. Development of accredited training in brief interventions in smoking cessation. Group Smoking Cessation Program. The program is being run at 2 sites; one in southern Queensland and one in northern Queensland.</p>	<p>Evaluation has commenced</p>	<p>\$310 000 over 4 years</p>	<p>1998-2002 S</p>	<p>Senior Adviser Tobacco Alcohol, Tobacco and Other Drug Services (ATODS) ph 07 3234 1725 fax 07 3234 1699</p>
	<p><u>Apunipima - Cape York Health Council</u> Produced educational flip chart for use by health workers or teachers working with Cape York Aboriginal children about tobacco. Kit also includes a short training video for workers in how to use the flip chart.</p>	<p>Focus testing</p>		<p>Launched March 1999, resources available</p>	<p>Policy and Programs Manager Apunipima Cape York Health Council PO Box 2797 Cairns Qld 4870 ph 07 4051 7450 fax 07 4051 7940</p>

South Australia	<p><u>Aboriginal Health Council of SA Aboriginal Tobacco Control Project SA</u> Past projects include: Commissioned research on Aboriginal smoking to inform the development of programs to aid in reducing the prevalence of smoking. The project employs a project worker. The aims of the project include raising the profile of tobacco issues in Aboriginal communities throughout the state. Project outcomes include: Development of a strategic plan to address tobacco control in SA. Established Aboriginal Tobacco Control Plan. Raised profile of tobacco issues amongst Aboriginal health workers and organisations. New resources, and plans to develop a video, CD-ROM. Assist with the establishment of a national Indigenous tobacco control network and a tobacco conference.</p>	<p>Research report available early 2001 Ongoing evaluation of project planned</p>	<p>\$200 000 annually</p>	<p>Dec 2000 Dec 2001, possibly to be extended</p>	<p>State Tobacco Control Project Coordinator Aboriginal Health Council of SA 167 Fullarton Rd Dulwich SA 5065 ph 08 8431 4800 fax 08 8431 4822</p>
	<p><u>Aboriginal Services Division (Department of Human Services SA)</u> Project involves an education program and health promotion program for pregnant Aboriginal women and women of reproductive age and their families, and includes education on nutrition and tobacco use.</p>	<p>Evaluation planned</p>	<p>\$400 000 over 2 years</p>	<p>2000 2002</p>	<p>Tobacco Officer PO Box 287 Rundle Mall Adelaide SA 5000 ph 08 8226 6269 fax 08 8226 6008</p>
Tasmania	<p>Nil</p>				
Victoria	<p><u>Quit Victoria</u> Victorian Smoking and Health Program employ an Aboriginal project officer who provides AHW training and support and produces Koori-specific smoking cessation resources. The unit also distributed small grants (\$1000 2000) for tobacco projects.</p>	<p>Qualitative research on community-based strategies conducted Qualitative research with Koori youth</p>	<p>\$70 000 annually</p>	<p>Ongoing</p>	<p>Project Coordinator Victorian Smoking and Health Program PO Box 888 Carlton, Vic 3053 ph 03 9635 5531 fax 03 9635 5510</p>
	<p><u>Victorian Aboriginal Health Service</u> Longitudinal study of health and wellbeing of Aboriginal youth living in Melbourne. Findings include qualitative and quantitative data on tobacco presented in a community report, Cigarette Smoking . Conducted a program on families and smoking and produced health promotion materials including a video titled Boorais and smoke don t mix .</p>	<p>Other community reports on findings also available</p>	<p>NHMRC OATSIH Myer Foundation Rio Tinto</p>	<p>Ongoing</p>	<p>Victorian Aboriginal Health Service 186 Nicholson Street Fitzroy Vic 3065 ph 03 9419 3000 fax 03 9417 3897</p>

Western Australia	<p><u>ACOSH/ Derbarl Yerrigan/ WA Health Department 'Say No to Smokes' project</u> The project will involve: Phase 1: Major review, formative research and networking Phase 1 will involve a major review of existing resources and programs and infrastructure support for the project. Qualitative research (focus groups) on the issue of smoking among Aboriginal health workers, Aboriginal Islander education officers, hospital liaison officers. Individual interviews with organisations involved in delivery of Indigenous health programs. Along with the establishment of cooperative networks with AHWs, AIEOs, HLOs and Aboriginal agencies and communities. Phase 2: Development of resources, AHW, AIEO and HLO training and smoking cessation Phase 2 will involve the development of the 'Say No to Smokes' training modules and resource materials and education and training of AHWs, including smoking cessation support for AHWs based upon the findings of Phase 1. Phase 3: Ongoing support to AHW, AEIOs, HLOs and communities The focus of phase 3 will be on providing ongoing support to AHWs to encourage participation in, and support of, local tobacco control programs.</p>	Research and evaluation has commenced	\$400 000 over 3 years	2000 2002	Project Coordinator ACOSH 46 Ventnor Ave West Perth WA 6005 ph 08 9212 4300 fax 08 9212 4301
	<p><u>ACOSH program.</u> The project aims to increase awareness of the adverse effects of passive smoking, particularly on the effects of smoking on children and pregnant women, and aims to encourage people to adopt smoke-free homes. The project involves training Aboriginal health workers to promote health messages about smoking and passive smoking, conducting seminars at schools about smoking, and being involved in community events. Other proposed projects include running workshops for parents and children at schools, running workshops for health staff, and developing a video about smoking.</p>	No evaluation report	Funding provided by the Diana, Princess of Wales Memorial Fund	1999 2000 T	obacco Officer ACOSH 46 Ventnor Ave West Perth WA 6005 ph 08 9212 4300 fax 08 9212 4301
	<p><u>Derbarl Yerrigan Aboriginal Medical Service</u> The Family Futures Program is a pilot strategy aimed at AHWs, to assist Aboriginal families with a range of issues including health, in a holistic way.</p>	Unknown	Derbarl Yerrigan AMS	2000 ongoing	Derbarl Yerrigan AMS 156 Wittenoom St East Perth WA 6004 ph 08 9421 3813 fax 08 9421 3884
	<p><u>Health Department of WA</u> Past projects include: Aboriginal Smoking and Health Project implemented by the Smoking and Health Program in 1994. Strategies and resources developed to date include Quit newsletters, and AHW resource manual, seminars on smoking and health issues for AHWs, radio and television advertising, posters and swap cards promoting a smoke-free lifestyle through the use of high profile Aboriginal sporting role models, and support for state and national programs. Gnummari Wa You won't go far Say goodbye to smokes. A training package for AHWs jointly produced by the Marr Mooditj Foundation and the Health Department of WA.</p>	Anecdotal feedback was sought on most strategies. Resources and information service available as part of ongoing program	Funded by the Health Department of WA	1994 97	For information on past projects contact: Tobacco Officer, Health Dept of WA 189 Royal St East Perth WA 6004 ph 08 9222 2030 fax 08 9222 2088 or Tobacco Officer, Office of Aboriginal Health 189 Royal St East Perth WA 6004 ph 08 9222 4182 fax 08 9222 4378

	<p><u>Kimberley Public Health Unit - Jabby Don't Smoke</u> The project was developed by KPHU puppeteer Gwen Knox, Kadjina (Millijiddee) Community members and film maker David Batty. It involved the making of puppets, and development of a no smoking message and storyline, which a travelling road show took to schools in the Kimberley region. A kit consisting of a video and classroom activity book was developed for use in schools. A TV and radio campaign was also developed to support the Jabby Don t Smoke message. Other resources have since been developed to compliment the project message, ie screen saver, pencils and sticker.</p>	<p>Evaluation conducted, report available</p>	<p>Funded by Healthway</p>	<p>Developed 1997-99, ongoing use of kit</p>	<p>Health promotion officer, Kimberley Public Health Unit PO Box 525 Broome WA 6725 ph 08 9192 9377 fax 08 9192 9380</p>
	<p><u>Gascoyne Public Health Unit - Yamatji Smoking Prevention Program.</u> As part of the project, focus groups and school surveys were conducted to assess knowledge and attitudes to smoking across the population. A retail survey was carried out at the same time to assess the level of sales to minors in the region.</p>	<p>Report available</p>	<p>Ongoing funding from Health Department of WA</p>	<p>Original survey 1998, health promotion campaigns continuing</p>	<p>Health promotion officer Gascoyne Public Health Unit PO Box 733 Carnarvon WA 6701 ph 08 9941 0560 fax 08 9941 0563</p>