Clearing the Smoke

A five-year plan for tobacco control
in New Zealand (2004–2009)

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Background

New Zealand has made substantial progress with tobacco control in the last two decades as a result of pursuing a comprehensive range of interventions. Nevertheless, there is still scope for accelerating this progress, considering the major burden of tobacco-related disease borne by the population, particularly by Māori, Pacific peoples and low-income New Zealanders.

Advancing tobacco control is possibly the most effective way to improve health status and reduce health inequalities. Specific reasons for addressing this issue include:

- *Death:* Tobacco is a major preventable cause of death among children and middle-aged and older people.
- *Illness and suffering:* Tobacco is a major preventable cause of illness and suffering in all age groups, particularly among Māori and low-income New Zealanders.
- *Economic effects:* Tobacco use harms the New Zealand workforce and has substantial adverse effects on the economy, including the health sector.
- *Public demand for action:* The New Zealand public and organisations representing various population groups want further improvements in tobacco control.
- *Availability of proven and cost-effective interventions:* Scientific evidence supports many of the interventions that can be used for extending tobacco control in New Zealand.

Vision

The vision for this tobacco control plan is for New Zealand to be a country where smokefree lifestyles are the norm.

Goals

The goals of this tobacco control plan are:

- to significantly reduce levels of tobacco consumption and smoking prevalence
- to reduce inequalities in health outcomes
- to reduce the prevalence of smoking among Māori to at least the same level as among non-Māori
- to reduce New Zealanders' exposure to second-hand smoke.

Objectives

The tobacco control plan has five objectives for 2004–2009:

- Objective 1: Prevent smoking initiation
- Objective 2: Promote smoking cessation
- Objective 3: Prevent harm to non-smokers from second-hand smoke
- Objective 4: Improve support for monitoring, surveillance and evaluation
- Objective 5: Improve infrastructural support and co-ordination for tobacco control activities.

Objective 1: Prevent smoking initiation

Strong scientific evidence shows that increasing the price of tobacco products reduces tobacco use, prevalence and consumption among adolescents and young adults. A similarly high level of evidence shows that mass media campaigns are effective, but only when combined with other interventions.

Further investment in these interventions is likely to yield the most benefit, so they are considered in this plan.

There is also potential for further regulations to control the promotion and marketing of tobacco products and the levels of nicotine and cigarette additives.

Objective 2: Promote smoking cessation

The health sector has made major progress in delivering smoking cessation programmes, with an active national Quitline service, heavily subsidised nicotine replacement therapy, mass media campaigns, and culturally appropriate smoking cessation services for Māori.

This plan encompasses the continuing support and further development of these programmes. It also supports increasing the price of tobacco as one of the most effective interventions to promote smoking cessation. District Health Boards are beginning to fund smoking cessation services and are encouraged to consider supporting this activity through Primary Health Organisations and for hospitalised patients.

Objective 3: Prevent harm to non-smokers from second-hand smoke

Strong scientific evidence (from overseas and New Zealand studies) exists to show that smoking bans and restrictions are effective. The Smoke-free Environments Act, banning smoking in all indoor work areas, gives effect to this evidence.

Evidence that community education can reduce second-hand smoke exposure in the home environment is insufficient.

Limited evidence suggests smokefree sponsorship can promote smokefree environments and that it may have other advantages such as de-normalising smoking and supporting healthy lifestyles.

Strong evidence (from overseas and New Zealand) suggests smoking cessation counselling for pregnant women is effective. While some smoking cessation services for pregnant women are funded as part of the tobacco control programme, this plan includes actions that could further address the high rates of smoking during pregnancy.

Objective 4: Improve support for monitoring, surveillance and evaluation

The health sector collects and analyses (routinely and occasionally) a range of data relevant to tobacco control. The Ministry of Health maintains a public health intelligence function and commissions research to support its tobacco control policy role. This plan includes monitoring, surveillance and evaluation activities that may be pursued to meet the plan's goals.

Objective 5: Improve infrastructural support and co-ordination for tobacco control activities

Activities to ensure a skilled and effective workforce include:

- enhancing health workers' training and development by providing national, regional and local opportunities for training, networking and sharing knowledge
- providing health workers with revised smoking cessation guidelines
- ensuring support for development is available to new providers and quality improvement processes are in place for established smoking cessation programmes.

Conclusion

The Ministry of Health will continue to communicate with government agencies and other stakeholders to enhance tobacco control activity.

See Wilson (2003) for the scientific evidence for various tobacco control interventions. Wilson also discusses the evidence in the context of New Zealand studies and the New Zealand setting.

Introduction

The Ministry of Health is responsible for acquiring public health intelligence, developing policy and funding tobacco control services. The services funded by the Ministry are set out in *Public Health Services Handbook* (Ministry of Health 2004).

District Health Boards (DHBs) are responsible for funding the provision of, or providing, health and disability services in their district. The statutory objectives of DHBs include improving, promoting and protecting the health of communities. Public health units in District Health Boards (DHBs) deliver health promotion and enforcement services.

Primary Health Organisations (PHOs) are the local provider organisations through which DHBs are implementing the Primary Health Care Strategy. This strategy builds on the population health focus and the objectives of the New Zealand Health Strategy and outlines how a different approach to primary health care will improve the health of all New Zealanders through a range of approaches including a greater emphasis on population health, health promotion and preventive care. PHOs work with those groups in their populations (for example, Māori, Pacific and lower income groups) that have poor health or are missing out on services to address their needs.

Māori providers deliver health promotion and smoking cessation services to Māori communities.

Other non-governmental organisations (NGOs) are also involved in tobacco control activities including cessation and the promotion of healthy public policy.

This document details how the Ministry of Health plans to progress tobacco control activities over the five-year period 2004–2009. It has been developed from a literature review updating the evidence for major tobacco control interventions (Wilson 2003). It has taken into account previous planning in New Zealand and overseas, as well as feedback from consultation.

Vision

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- to significantly reduce levels of tobacco consumption and smoking prevalence
- to reduce inequalities in health outcomes
- to reduce the prevalence of smoking among Māori to at least the same level as among non-Māori
- to reduce all New Zealanders' exposure to second-hand smoke.

Table 1 shows the targets that will be used to measure achievement of the goals.

Table 1: Targets to show achievement of the tobacco control plan's goals

Goals	Targets*
To significantly reduce levels of tobacco consumption and smoking prevalence	• Reduce the adult smoking prevalence from 25% to at least 20% or less by 2009. • Reduce the tobacco products sold from 1187 cigarette equivalents per adult per year to less than 1000 by 2009. • Reduce the smoking prevalence among people aged 15–19 from 26% to at least 20% by 2009.
To reduce inequalities in health outcomes	• Reduce the smoking prevalence among adults with a household income under $20,000 from 33.7% for males and 32.6% for females to at least 30% (for both males and females) by 2009. • Reduce the daily smoking prevalence among Year 10 students (14–15-year-olds) at low socioeconomic decile schools (ie, deciles 1 and 2) from 15% for males and 29.7% for females to at least 12% for males and at least 25% for females by 2009.
To reduce Māori smoking prevalence to at least the same level as non-Māori	• Reduce the smoking prevalence of Māori adults from 49% to at least 40 percent by the 2009. • Reduce the proportion of Māori females aged 14–15 smoking daily from 34.3% to at least 30% by 2009. • Reduce the smoking prevalence of Māori women aged 15–24 from 57.5% to at least 50% by 2009.
To reduce New Zealanders' exposure to second-hand smoke	• Reduce the proportion of indoor workers exposed to environmental tobacco smoke during working hours to zero by 2006. (Note: It was 17% in 2001.)

***** Adults are people aged 15 and over.

Guiding principles for this plan

The principles used to determine the actions detailed in this plan are outlined in Table 2.

Table 2: Principles considered by the Ministry of Health in its development of the tobacco control plan 2004–2009

Principle	How the Ministry of Health will give effect to the principle	Relevance of principle to tobacco control
Effectiveness	The Ministry will give substantial weight to interventions for which there is strong scientific evidence of effectiveness.	• Given the diversity of possible tobacco control interventions it is important to emphasise interventions that are best supported by scientific evidence from randomised trials and other methodologically robust studies. • Inadequate evidence exists in some areas, because well-designed evaluation studies have not been performed. This means some interventions may need to be piloted in New Zealand with built-in evaluation processes. • Interventions for which evidence is insufficient might still be required, for example, when the Government has a legal obligation to warn consumers of hazardous products because the industry has failed to provide warnings.
Reach	The Ministry will give weight to interventions that benefit a large proportion of the community.	• Interventions such as tobacco taxation and smokefree environments legislation can have effects throughout the community. • Other interventions such as counselling at specialised clinics affect only a small proportion of the community. • Reach combined with effectiveness indicates the overall level of an intervention's impact.
Cost-effectiveness	When evidence is available, the Ministry will give weight to cost-effective interventions.	• Although far from complete, there is a growing body of economic literature that considers tobacco control interventions (Wilson 2003). From this is it possible to identify interventions that are more cost-effective than others in terms of cost per quitter. • Cost-effectiveness will be balanced with other principles.
Equity (fairness)	The Ministry will seek to achieve equity of outcomes, with the aim of reducing disparities in health status.	• Tobacco use is a major cause of the relatively poorer health outcomes of Māori, Pacific peoples and low-income New Zealanders. • Māori have substantially higher smoking prevalence rates than the non-Māori population. • Pacific peoples and low income New Zealanders also have higher smoking prevalence rates than the non-Māori and non-Pacific population.

Principle	How the Ministry of Health will give effect to the principle	Relevance of principle to tobacco control
Advancing Māori health	In developing policy and making funding decisions, the Ministry will follow the directions, threads and pathways outlined in He Korowai Oranga (the Māori Health Strategy).	• Tobacco use is a major cause of the relatively poorer health outcomes of Māori compared with non-Māori. • He Korowai Oranga provides the public sector with a framework within which it can take responsibility for its part in supporting the health status of Māori individuals, whānau and iwi.
Acceptability	The Ministry will take into account New Zealanders' expectations and values in its decision-making processes.	• Tobacco is a legal product many people value being able to consume. However, it is also a hazardous product that causes substantial harm for smokers regardless of whether they want to quit. • Second-hand smoke causes harm to the fetuses and children of smokers and non-smokers. • New Zealand survey data indicate that most of the public accept tobacco control measures such as advertising and sponsorship restrictions (de Zwart and Sellman 2002). • Input from community members will be sought in the development of public health policies, programmes and priorities.
Ethical considerations	The Ministry acknowledges the ethical issues raised by tobacco use and tobacco taxation.	• An excessive burden of tobacco dependency and tobacco-related harm is borne by Māori, Pacific peoples and low-income New Zealanders. • Tobacco use behaviours are to some extent transmitted from parents to children (Conrad et al 1992). Infants and children are directly harmed by the second-hand smoke of smoking caregivers. Some of this harm can result in sudden infant death syndrome or life-long asthma. • The importance of protecting infants and children means priority will be given to reducing smoking by women of childbearing age.
Appropriate use of targeting	The Ministry will strive to maximise the benefits of targeted interventions and minimise potential adverse effects.	• Targeting interventions will enable the Ministry to direct resources to people with the greatest health need such as Māori and low-income New Zealanders. • Disadvantages of targeting include a potential stigmatising effect and for middle-income groups to miss out. These issues will be carefully considered when the Ministry considers the extent that particular interventions are targeted. • The universal/targeting continuum in a New Zealand context is discussed in Crampton (2002).

Importance of tobacco control to Māori

Tobacco control is a major issue for Māori in terms of health, equity, economic status and cultural identity.

Although smoking prevalence has declined among Māori adults from 56% in 1981 to 46% in 1996 (Laugesen and Swinburn 2000), the Māori smoking rate remains more than double the European rate (Minister of Health and Associate Minister of Health 2002). Similarly, the smoking rate among Māori aged 14–15 is double the European rate for the same age group (Minister of Health and Associate Minister of Health 2002). The particularly high smoking rate among young female Māori students has been identified in several studies (eg, Reeder et al 1999).

Health status

Tobacco use has a particularly adverse impact on Māori health. An estimated 31% of Māori deaths are attributable to tobacco use (Laugesen and Clements 1998). Furthermore, an estimated 14–15% more Māori would survive middle age if no Māori smoked after age 35 years.

The tobacco-related cancers (IARC 2002b) for which the Māori rates are substantially higher than the non-Māori rates (in terms of disability-adjusted life years lost) include cancers of the lung, stomach, cervix and liver (Ministry of Health 1999). For lung cancer, the rate of disability-adjusted life years lost for Māori is more than three times the rate of non-Māori. This is almost certainly largely due to the higher prevalence of smoking by Māori.

Smoking is also likely to be a major reason for higher Māori rates of heart disease, respiratory infections, otitis media (glue ear) and the adverse outcomes of diabetes. (For comparisons with non-Māori, see the Ministry of Health's annual reports [for example see Ministry of Health 1997].) The relatively high hospitalisation rate for asthma among Māori might also be associated with smoking and/or higher exposure to second-hand smoke (Ministry of Health 1999).

It has been estimated that 33 Māori children die each year from sudden infant death syndrome (SIDS) as a result of exposure to smoking by adults (Ministry of Health 1999).

Smoking may also play a role in the higher rates of meningococcal disease among Māori given that a New Zealand study found that the number of smokers in a household was a significant risk factor for meningococcal disease in children (Baker et al 2000). Another New Zealand study identified that smoking is a risk factor for the carriage of the microbe that causes meningococcal disease – *Neisseria meningitidis* (Simmons et al 2001).

Economic status

The cost burden from tobacco-related absenteeism, premature death and illness is likely to be particularly severe for Māori. Part of the reason is that Māori are already disadvantaged with lower than average incomes. Also the harm from smoking interacts with other risk factors such as poor diet (for the risk of heart disease) and poor housing (for the risk of respiratory disease).

Furthermore, the economic independence of Māori is impeded by expenditure on tobacco. One estimate is that Māori spent around $266 million on cigarettes in 2000.

Cultural identity

Tobacco use is not a traditional part of Māori culture (Reid and Pouwhare 1992; Broughton 1996). Indeed it appears traditional Māori society did not use any psychotropic substances and certainly no addictive substances. This theme of being 'traditionally smoke free' has been used in mass media materials designed for Māori audiences and in Auahi Kore sponsorship-related materials.

The health and economic burden of tobacco use on Māori are why the Government and its health agencies wish to address the impact of smoking on Māori. Also, given the high value that Māori society places on kaumātua, the impact of premature death from tobacco-related diseases may be of particular concern to Māori.

Importance of tobacco control to Pacific peoples

Tobacco control is a major issue for Pacific peoples in New Zealand because of their higher overall smoking rates (compared with the European population). The difference is mainly due to the higher smoking rates of Pacific men (36% compared with 24% in European men) (Minister of Health and Associate Minister of Health 2002).

Similarly, the smoking rate among Pacific peoples aged 14–15 is higher than the European rate (26% compared with 18% for at least weekly smoking by females (Minister of Health and Associate Minister of Health 2002).

Census data indicate there is substantial diversity of tobacco use within different groups of Pacific peoples, for example, by age and place of birth.

Health status

The relatively high hospitalisation rate for Pacific peoples (compared with the European population) for respiratory infections, stroke and ischaemic heart disease is likely to be partly attributable to smoking and exposure to second-hand smoke (Ministry of Health 1999; Tukuitonga et al 1990).

The high hospitalisation rate for diabetes among Pacific peoples is also probably partly attributable to smoking since smoking exacerbates the adverse outcomes of diabetes (Ministry of Health 1999).

The relatively high hospitalisation rate for asthma among Pacific peoples compared with the European population might also be associated with direct smoking and/or higher exposure to second-hand smoke (Ministry of Health 1999).

An estimated three Pacific children die each year from SIDS as a result of exposure to smoking by adults (Ministry of Health 1999). Furthermore, some data have suggested that only 32% of Pacific mothers know that maternal smoking is a risk factor for SIDS (Paterson et al 2002).

Smoking may also play a role in the higher rates of meningococcal disease among Pacific children for the same reasons as for Māori children (see the discussion above).

Economic status

The financial burden from tobacco-related absenteeism, premature death and illness is also particularly problematic for Pacific peoples, because Pacific peoples are already disadvantaged with lower than average incomes. Also the harm from smoking interacts with other risk factors such as poor diet (for the risk of heart disease) and poor housing (for the risk of respiratory disease).

There is also the loss of financial resource due to direct spending on tobacco. It is estimated that Pacific peoples spent around $72 million on cigarettes in 2000.

Cultural identity

Tobacco use is not a traditional part of Pacific peoples' cultures even though some Pacific countries started to cultivate tobacco after colonisation. Many Pacific peoples' religions are opposed to smoking.

Of particular concern is the evidence that the tobacco industry developed specific promotion strategies to target Pacific peoples in the United States (Muggli et al 2002).

Importance of tobacco control for reducing health inequalities

The predominant pattern in developed countries is for men and women in lower socioeconomic groups to have higher smoking prevalence rates than men and women in higher groups (Stellman and Resnicow 1997; Stamler et al 1992). The result of these higher smoking rates and exposure is an unequal illness burden from smoking. One review reported that 'a large body of evidence confirms the inverse association of lung cancer and social class in many developed countries'. The study also noted that in some situations it has been 'satisfactorily demonstrated' that such gradients are attributable to social class gradients in tobacco use (Stellman and Resnicow 1997).

In New Zealand there is substantial evidence that adults in lower socioeconomic groups have higher smoking rates (Jackson et al 1987; Whitlock et al 1997; Ministry of Health 1999b; Crampton et al 2000; Borman et al 1999; Howden-Chapman and Tobias 2000). Furthermore, non-smoking adults in lower socioeconomic groups in New Zealand appear to suffer from increased exposure to second-hand smoke (Whitlock et al 1998).

In terms of adverse health outcomes from tobacco-related disease (ie, heart disease and cancer) the burden is also greatest among New Zealanders in lower socioeconomic groups (Pearce et al 1985; Kawachi et al 1991; Pearce and Bethwaite 1997). In particular, a detailed Ministry of Health study has found that at least one-third of the shorter life expectancy of people living in the most deprived areas of New Zealand is accounted for by smoking (Tobias and Cheung 2001).

The general implication of socioeconomic status for tobacco consumption and the tobacco-related health burden is that tobacco control interventions should be particularly focused on reaching people in low socioeconomic groups (particularly Māori and Pacific peoples).

Evidence shows the following initiatives can be effective:

- Increasing the price of tobacco through tobacco taxation can be effective because low socioeconomic groups are particularly price sensitive. This initiative should be complemented with quit programmes and other assistance to minimise the risk of increasing financial hardship for families where smokers are otherwise are not able to cut down or quit.
- Requiring all workplaces (including factories and venues predominantly frequented by low socioeconomic groups) to be smoke free is a requirement of smokefree legislation.
- Conducting mass media campaigns to maximise their reach to low socioeconomic groups.
- Ensuring smoking cessation interventions minimise price barriers.
- Making an ongoing effort to lift low-income New Zealanders out of poverty with government investment in education, employment and housing.

Relationship with other documents

Framework Convention on Tobacco Control

New Zealand's ratification of the World Health Organization's Framework Convention on Tobacco Control imposes a legal requirement on New Zealand to comply with all mandatory aspects of the convention. New Zealand is strongly encouraged to also implement discretionary measures. New Zealand complies with all the mandatory requirements except the requirement to have health warnings on tobacco packaging of at least 30 percent of the principal areas.

Discretionary measures include:

- stronger, larger, and pictorial health warnings
- banning terms such as 'light' and 'mild'
- stronger disclosure provisions on the contents of tobacco
- regulation of the contents of tobacco
- other messages on tobacco packaging
- tax increases
- banning or restricting duty-free tobacco sales
- banning confectionary and toy tobacco products
- banning vending machines
- further restrictions on cross-border advertising
- removing the provision for granting exemptions from sponsorship and advertising restrictions for significant events
- greater investment in and commitment to cessation and health promotion activities
- greater co-ordination and undertaking of research, surveillance etc
- banning sales of tobacco from places where they are directly accessible
- banning sales of tobacco by people aged under 18.

New Zealand Health Strategy

A reduction in smoking is one of 13 priority areas identified in the New Zealand Health Strategy (Minister of Health 2000).

DHBs report annually on progress towards meeting the strategy's requirements. The Minister of Health must report to Parliament on overall progress in these areas (under section 8(4) of the New Zealand Public Health and Disability Act 2000).

Tobacco control is also relevant to nine other priority areas. See Table 3.

Table 3: Links between the smoking priority area and other priority health areas in the New Zealand Health Strategy (NZHS)

NZHS priority	Relevance of tobacco control to the priority
Improve nutrition	Smoking impairs micronutrient status in smokers due to its toxic effects and adverse impacts on appetite. Also, expenditure on tobacco reduces the economic resources available for spending on nutritious food such as fresh fruit and vegetables, especially among low-income groups.
Increase the level of physical activity	Smoking adversely affects physical activity levels, because smokers have higher rates of respiratory infection and chronic lung disease, and poorer exercise capacity than non-smokers. Evidence exists that smokers have higher injury rates (Kaufman et al 2000; Jones et al 1994), which may impede involvement in physical activity.
Reduce obesity	Concern about putting on weight is related to continued smoking in some populations (Fiore et al 2000). While smoking is generally associated with lower body weights due to its effects on appetite and metabolic rate, smoking also interacts with obesity to increase the risk of cardiovascular disease. Moreover the relationship between smoking and lower levels of physical activity may impede the prevention and control of obesity.
Reduce the rates of suicide and suicide attempt	A growing body of evidence is showing that smoking is an independent risk factor for suicide (Miller et al 2000a; Miller et al 2000b; Tanskanen et al 2000).
Minimise harm caused by alcohol and illicit and other drug use to individuals and the community	Evidence exists that increases in alcohol tax can reduce smoking (Jimenez and Labeaga 1994), probably because it reduces discretionary expenditure available for tobacco expenditure and alcohol consumption is likely to be associated with smoking.
Reduce the incidence and impact of cancer	Smoking is the major cause of lung cancer in New Zealand. Furthermore, the International Agency for Research on Cancer (IARC) states that 'there is now sufficient evidence for a causal association between cigarette smoking and cancers of the nasal cavities and nasal sinuses, oesophagus (adenocarcinoma), stomach, liver, kidney (renal cell carcinoma), uterine cervix and myeloid leukaemia' (IARC 2002b). The IARC has also stated there is *sufficient evidence* that exposure to second-hand smoke causes lung cancer in humans (IARC 2002a).

NZHS priority	Relevance of tobacco control to the priority
Reduce the incidence and impact of cardiovascular disease	Smoking is a major contributor to both heart attacks and strokes among smokers. There is now good evidence that exposure to second-hand smoke also causes heart attacks and strokes in non-smokers.
Reduce the incidence and impact of diabetes	Smoking is a major risk factor for adverse health outcomes among people with diabetes, particularly in terms of its contribution to cardiovascular disease (Brown 2000) and eye disease (Congdon 2001).
Improve oral health	Substantial evidence exists that smoking is an important risk factor for periodontal disease (Kinane and Chestnutt 2000).

Achieving Health for all People: Whakatutuki te Oranga Hauora mo ngā Tāngata Katoa

Achieving Health for all People: Whakatutuki te Oranga Hauora mo ngā Tāngata Katoa (Ministry of Health 2003) is the public health sector's response to the New Zealand Health Strategy. Its five objectives are to:

- build strong public health leadership at all levels and across all sectors
- encourage effective public health action across the whole health sector
- promote healthy communities and environments
- make better use of research and evaluation in developing public health policy and practice
- achieve measurable progress on public health outcomes.

Achieving Health for all People points to the importance of detailed action plans for key issues. This tobacco control plan is one such plan. It serves to advance at a more specific level the public health objectives outlined in *Achieving Health for all People*.

National Drug Policy

The National Drug Policy (Ministry of Health 1988d) is under review with a new policy planned for late 2004.

The National Drug Policy provides the framework for minimising harm from alcohol, illicit drugs and tobacco. Strategies are detailed under the following action areas:

- legislation and enforcement (eg, restricting the advertising, sale and use of tobacco products)
- taxation (eg, increasing the price of tobacco products)
- health promotion (eg, encouraging changes in attitude and behaviour)
- cessation services (eg, helping smokers to quit).

The priorities for action on tobacco are:

- enabling New Zealanders to increase their control over and improve their health by limiting the harms and hazards of tobacco and alcohol use
- reducing the prevalence of tobacco smoking and exposure to second-hand smoke.

He Korowai Oranga (Māori Health Strategy)

The overall aim of He Korowai Oranga (Māori Health Strategy) is whānau ora – Māori families supported to achieve the fullness of health and wellbeing within te ao Māori and New Zealand society as a whole (Minister of Health and Associate Minister of Health 2002).

Three key threads are woven throughout the strategy:

- acknowledging Māori aspirations for control over their own lives
- maintaining and building on the gains already made
- reducing inequalities between the health of Māori and other population groups.

This plan addresses these threads in relation to the impact that tobacco has on Māori.

Pacific Health and Disability Action Plan

The Pacific Health and Disability Action Plan sets out the strategic direction and actions for improving health outcomes for Pacific peoples and reducing inequalities between Pacific and non-Pacific peoples (Minister of Health 2002). In particular, the second priority in the action plan addresses the promotion of Pacific healthy lifestyles and wellbeing and identifies tobacco as a risk factor influencing Pacific health.

The action plan highlights:

- exploring smoking cessation programmes for Pacific peoples
- encouraging smokefree Pacific environments
- improving the availability of services.

This tobacco control plan recognises the importance of addressing the impact of tobacco on Pacific populations.

Child Health Strategy

The Child Health Strategy outlines what is required to improve child health services and ultimately the health status of children by 2010 (Ministry of Health 1998b). Underpinning this strategy is the Child Health Programme Review, which focuses on preventive interventions and identifies tobacco control as one of four interventions with the greatest potential to reduce morbidity and mortality in children (Ministry of Health 1998b).

New Zealand Cancer Control Strategy

The New Zealand Cancer Control Strategy has purposes, principles and goals to guide existing and future actions to control cancer (Minister of Health 2003). One of the strategy's objectives relating to prevention includes reducing the number of people who develop cancers due to tobacco use and second-hand smoke. This tobacco control plan addresses the areas for action to achieve the Cancer Control Strategy's objective.

Reducing Inequalities in Health

Reducing Inequalities in Health proposes principles to be applied to all health sector activities to ensure it helps to overcome health inequalities (Ministry of Health 2002a). The principles include:

- dealing with the social, economic, cultural and historical factors that cause health inequalities
- targeting material, psychosocial and behavioural factors
- undertaking specific actions within health and disability services
- minimising the impact of disability and illness on socioeconomic position.

This tobacco control plan recognises the importance of tobacco control activity in reducing health inequalities.

Public Health Service Handbook

The *Public Health Service Handbook* outlines the tobacco control services funded by the Ministry of Health and provided by public health providers (Ministry of Health 2004).

Smokefree Enforcement Manual

The *Smokefree Enforcement Manual* sets out policy and procedures in relation to the enforcement of the Smoke-free Environments Act 1990 (Ministry of Health 1998c).

Objectives

Introduction

Five objectives have been identified to achieve the targets set for tobacco control. A background outlining the current status of each objective is provided below. Based on a review of evidence, the potential outcomes and supporting evidence is summarised. More detail on the supporting evidence is in Wilson (2003), available from the National Drug Policy website, www.ndp.govt.nz.

A table outlines the planned and possible actions for each objective. Actions that may be undertaken by the Ministry of Health have been prioritised; some will be considered only if funding for tobacco control is increased during the five-year period.

Objective 1: Prevent smoking initiation

Background

The initiation of tobacco use and the transition from experimentation to addiction are not easy to prevent (Hopkins et al 2001), because they generally occur in adolescence. Adolescents face pro-smoking influences from peers and family and the marketing efforts of the international tobacco industry when they are making the change from the dependency of childhood to the independency of adulthood. Smoking has been described as a 'communicable disorder' among students (Molyneux et al 2002).

Youth smoking rates in New Zealand are relatively low compared with most other OECD countries. The prevalence of at least weekly smoking by New Zealand secondary school students appeared to be declining from 1999 to 2001 (Minister of Health and Associate Minister of Health 2002).

Proven interventions are available to the health sector to reduce smoking initiation. There are also probable benefits for prevention associated with interventions aimed at adults (eg, smokefree environments and mass media campaigns).

Potential outcomes

Potential outcomes from interventions to prevent smoking initiation include:

- tobacco products being less affordable to young people
- less promotion of tobacco products (including fewer product displays and less advertising in the mass media)
- a decrease in smoking prevalence among school students.

Supporting evidence

Strong scientific evidence supports increasing the price of tobacco products and conducting mass media campaigns combined with other interventions to reduce tobacco use, prevalence and consumption among adolescents and young adults.

Good evidence exists that youth access interventions can reduce tobacco sales, especially if such interventions involve high levels of enforcement. However, given young people's alternative sources of tobacco, more evidence is required to determine the extent to which such interventions reduce smoking behaviour.

Two systematic reviews of school-based interventions are under way, but there is evidence from other studies (Abernathy and Bertrand 1992, Elder et al. 1993, Vartiainen et al 1998, Rooney and Murray 1996) that some school-based interventions can be effective.

Actions for implementation

Table 4 shows the interventions to reduce smoking initiation by young people. Of these interventions, the one likely to have the greatest impact is an increase in the real price of tobacco products. However, a reduction in the level of nicotine in cigarettes to reduce their addictiveness potential would also have a long-term effect.

Table 4: Actions to prevent smoking initiation in young people

Actions	What the Ministry of Health will consider	Potential outputs	Māori-specific issues	Comments
Major interventions of proven effectiveness				
Increase tobacco taxation	Provide policy advice to the Government in line with the Framework Convention on Tobacco Control (FCTC) recommendations relating to regular pre-planned tobacco tax increases.	Excise tax policy is integrated with other interventions such as mass media campaigns to increase effectiveness	The balance between the benefits and financial hardship from taxes is particularly relevant to Māori.	This is probably the most important single intervention to reduce smoking initiation.
Mass media campaigns	Fund a mass media campaign of proven effectiveness for youth.	A youth media campaign.	Special emphasis will be needed for Māori youth, especially young Māori women.	This campaign will be more effective in combination with other interventions and could be a component of a broader mass media campaign that also addresses smoking cessation and second-hand smoke issues.
Promote healthy public policy	Continue to fund the promotion of healthy public policy at national, regional and local levels.			

Actions	What the Ministry of Health will consider	Potential outputs	Māori-specific issues	Comments
Tobacco industry regulation (content)				
Reduce the nicotine content of cigarettes	Undertake consultation and provide policy advice to the Government in line with FCTC discretionary provisions on the regulatory options for reducing nicotine and the nicotine to tar ratio in cigarettes. Provide policy advice to the Government in line with FCTC discretionary provisions to consider banning terms such as 'light' and 'mild'.	New regulations concerning tobacco constituents and misleading terms.		Reducing nicotine levels might reduce the risk of addictiveness for young people experimenting with smoking, but it might also make smoking seem safer, working against the objective of reduced consumption.
Reduce tobacco additives and carcinogens	Review, in line with FCTC discretionary provisions, the options for eliminating additives and reducing carcinogen levels.	A consultation document outlining options is issued for comment.		Eliminating additives might make cigarettes less attractive to young people experimenting with smoking.
Tobacco industry regulation (tobacco promotion)				
Reduce retail tobacco product displays	Monitor the effect of new retail display provisions. Provide policy advice to the Government on the implications of further controls on product displays including, in line with FCTC discretionary provisions, the banning of tobacco product sales from places where they are directly accessible.	New regulations, increasing the size of health warnings.	The value of existing warnings in te reo Māori and the impact of trade harmonisation arrangements with Australia will be part of policy advice.	New provisions have been introduced governing the display of tobacco products for sale. Saskatchewan in Canada has banned the display of all tobacco products.
Change warnings on cigarette packets and packet inserts	In line with FCTC requirements and discretionary provisions, consult and provide policy advice to the Government on options for enhanced warnings (including expanding the size of warnings and pictorial health warnings); stronger disclosure provisions on the contents of tobacco; and the inclusion of other messages on tobacco products.	A review document for consultation.		Expanding the size of health warnings is an FCTC requirement.

Actions	What the Ministry of Health will consider	Potential outputs	Māori-specific issues	Comments
Other health promotion activities				
Smokefree sponsorship and social marketing activities	Continue to fund the Health Sponsorship Council (HSC) and other providers working to promote smokefree lifestyles. Provide policy advice in line with FCTC discretionary provisions to remove the Minister of Health's ability to grant exemptions from sponsorship and advertising restrictions.	Continued HSC promotion of its Smokefree and Auahi Kore brands.	The HSC will be invited to consider shifting resources to sports played by young Māori women.	
Encourage smokefree pre-schools, kohanga reo and schools	Fund DHB and NGO tobacco programme providers to support the implementation of smokefree schools and school grounds legislation. This will include developing fact sheets to support smokefree environments legislation.	All pre-schools, kohanga reo and schools will be smoke free.	Kohanga reo and kura kaupapa will be required to be smoke free. Māori providers are funded to support this.	New provisions have been introduced to require all pre-schools, kohanga reo and schools to be smoke free.
Promote physical activity in the community to *prevent* smoking	Continue to fund programmes that promote increased physical activity, and brand popular sports as smoke free.		Encourage sports and other physical activities popular among Māori.	
Develop school-based education about smoking hazards	Continue to fund current activities and resources.	The Health and Physical Activity Curriculum used effectively to educate children about the hazards of smoking.	Enhance activities in areas with a high proportion of Māori as a priority.	Greater priority may need to be given to programmes that are integrated with programmes concerning other substance misuse and involve personnel skill training.

Actions	What the Ministry of Health will consider	Potential outputs	Māori-specific issues	Comments
Enforcement of laws and associated educational activities				
Enforce the Smoke-free Environments Act 1990	Review the current level of service provided by DHBs for monitoring and enforcing all aspects of the Smoke-free Environments Act 1990. Identify resources required to enforce new smokefree legislation.	Appropriate balance of enforcement activities in relation to smokefree workplaces, underage tobacco sales, vending machines, advertising and cigarette sales and retailer education.	Non-office workplaces are particularly relevant for Māori and should be a priority for educational and enforcement efforts.	There is uncertainty about the cost-effectiveness of controlled purchase operations. However, they could be more effective if accompanied with more investment in mass media campaigns on the risks of second-hand smoke.
Ban the supply of tobacco products to young people	Provide policy advice to the Government in line with FCTC discretionary provisions to ban confectionary products, vending machines and the sale of tobacco products by people aged under 18.			The Smoke-free Environments Act 1990 banned the supply of cigarettes and sale of toy cigarettes to minors.
Other interventions aimed at young people				
Develop interventions to decrease the impact of smoking behaviour on television and in movies	Consider funding counter-advertising in theatres and on television in association with films that convey positive smoking imagery.		This intervention is also relevant to smoking on Māori television.	The television broadcasting charter gives scope for further reductions of smoking on television. Placing age-restrictions on movies with smoking could also be considered.
Educate parents about pocket money and smoking by young people	Consider including this education as part of a larger campaign about youth uptake.			New Zealand data show a relationship between pocket money and smoking. This action may also be relevant to alcohol and cannabis control.

Actions	What the Ministry of Health will consider	Potential outputs	Māori-specific issues	Comments
General tobacco control interventions that may also benefit young people				
Mass media campaigns targeted at adults	Continue to fund mass media campaigns targeted at adults.			Young people are also likely to benefit from mass media advertising aimed at adults.
Smokefree environments	Continue to promote smokefree environments.			Some evidence suggests smokefree environment regulations and rules have beneficial impacts on young people (Fichtenberg and Glantz 2002).
Disclosure of tobacco industry marketing plans	Consider reviewing the Canadian experience requiring the tobacco industry to supply marketing plans to health authorities.		Marketing that targets Māori and low-income New Zealanders could be identified.	This could enable the health sector to better control promotion that could affect young people's smoking.

Note: The activities in the shaded boxes have a lower priority than other activities and would generally be considered only if funding for tobacco control was substantially increased during the five-year period.

Objective 2: Promote smoking cessation

Background

This objective covers interventions to promote a shift from the 'pre-contemplative' stage to the 'contemplation' and 'action' phases of smoking cessation as well as the 'maintenance' phase when ex-smokers are at risk of relapse.

The health sector has made progress in the provision of smoking cessation services. The national Quitline service is one of the world's most active on a population basis and is the only quitline to distribute heavily subsidised nicotine replacement therapy (NRT). Approved primary care providers and selected hospitals also distribute subsidised NRT through the Quit Card programme.

Services are available in some areas for pregnant women needing intensive support to quit or reduce their smoking.

Culturally appropriate Māori smoking cessation services have been developed, including the Aukati Kai Paipa programmes and Māori quit advisors on Quitline. Smoking cessation guidelines have been developed and there has been enhanced training of health professionals and community health workers. A wide range of smoking cessation products is also available through the private sector. Nevertheless, there is scope to make more progress, for example:

- more supportive environments for quitting (eg, in terms of higher tobacco prices)
- more intensive mass media campaigns to support quitting (Wilson 2003)
- better access to a broader range of pharmacotherapies such as bupropion
- more effective health sector interventions to assist smokers to quit, especially in primary care and hospital settings
- smoking cessation contests.

The Primary Health Care Strategy (Minister of Health 2001) and Primary Health Organisations (PHOs) are expected to ensure health workers give better advice about the benefits of quitting and the provision of some forms of pharmacotherapy.

Potential outcomes

General population

For the general population potential outcomes include greater:

- awareness about the benefits of smoking cessation and how to access smoking cessation resources
- acceptance of tobacco tax as a health promoting tax.

Smokers

For smokers potential outcomes include:

- an increase in the proportion of smokers, particularly Māori and low income New Zealanders, who are taking definite actions to stop smoking
- an increase in the proportion of smokers, particularly Māori and low income New Zealanders, who successfully quit smoking
- an increase in the annual number of quit attempts by smokers
- a decrease in the proportion of ex-smokers who relapse.

Health workers

For health workers potential outcomes include an increase in the range and number of health workers, including primary and secondary care sectors, with the information and smoking cessation resources to help smokers, particularly Māori and low-income New Zealanders, to quit smoking.

Supporting evidence

Strong supportive evidence

Strong scientific evidence supports the effectiveness of:

- increasing the unit price for tobacco products
- mass media campaigns (when combined with other interventions)

- self-help smoking cessation resources
- counselling by health professionals
- group counselling for smoking cessation
- counselling for pregnant women. Smoking in pregnancy interventions have been shown to be effective in reducing smoking, low birth weights and preterm births (Lumley et al 2004). A New Zealand designed intensive intervention called Smokechange has also reported promising results (Cowan 2003)
- reminder systems prompting providers to interact with patients about smoking and provider education (with or without patient education)
- patient telephone support (quitlines) when combined with other interventions
- cessation services for hospitalised patients
- greater use of NRT
- use of bupropion or nortriptyline.

Sufficient supportive evidence

Sufficient evidence supports the effectiveness of:

- provider reminder systems (on their own)
- reducing out-of-pocket costs for effective smoking cessation treatments.

Limited supportive evidence

Limited evidence supports the effectiveness of:

- mass media education/smoking cessation services
- mass media education/smoking cessation contests
- church-based smoking cessation interventions (particularly for Pacific peoples).

Insufficient supportive evidence

Insufficient evidence supports the effectiveness of:

- physical activity interventions for smoking cessation
- provider education programmes (on their own)
- provider feedback systems
- pre-operative smoking cessation interventions
- hypnotherapy for smoking cessation.

Evidence of ineffectiveness

Some evidence exists that the following have no effect:

- enhancing partner support to improve smoking cessation
- acupuncture for smoking cessation.

Actions for implementation

Table 5 outlines actions to promote smoking cessation. Smoking cessation for pregnant women is considered under Objective 3.

Table 5: Actions to promote smoking cessation

Actions	What the Ministry will consider	Potential outputs	Māori-specific issues	Comments
Major interventions of proven effectiveness				
Increase tobacco taxation	See Table 4.			
Enforce smokefree legislation	See Table 4.			
Support the national Quitline service	Continue to fund and enhance the existing service.	Call rates remain high. Evaluation of quit rates.	Sustained promotion of the service to, and acceptability by, Māori is important.	
Mass media campaigns to promote quitting, the Quitline and subsidised NRT	Continue to fund the current campaigns and enhance when resources permit.		Pre-testing of campaign themes will continue to include Māori participants. Iwi radio and Māori television will be used.	
Access to proven pharmacotherapy				
Subsidise NRT	Continue to fund existing services, but reassess when current evaluation work is completed. Review exchange card provider programme. Review funding mechanisms.	Low cost NRT is provided to those who need it.	Aukati Kai Paipa programmes will continue to provide free or heavily subsidised NRT.	
Subsidise other pharmacotherapies	Keep effectiveness of other pharmaco-therapies such as bupropion and nortriptyline under review. Promote the use of these pharmaco-therapies in line with smoking cessation guidelines.			

Actions	What the Ministry will consider	Potential outputs	Māori-specific issues	Comments
Enter partnerships with the private sector to promote cessation aids	Review the potential to coordinate smoking cessation activity with the pharmaceutical industry.			Some companies have invested heavily in advertising smoking cessation products, but this has never been synchronised with public sector activities.
Provider based services				
Train health workers	Continue to fund the existing level of services and enhance when resources permit. Undertake a review of health worker training.	Continued training of health workers through approved training programmes.	Emphasis will continue to be given to training Māori health workers.	
Smoking cessation guidelines for health workers	Support the National Health Committee to undertake at least one revision of the 2002 guidelines.	The 2002 guidelines are updated.	Guidelines will update information on Māori-specific services.	Revisions could be required more frequently if there are rapid advances in the smoking cessation field.
Work with DHBs to promote the use of reminder systems by Primary Health Organisations (PHOs) and hospitals	Promote the use of automatic reminders in general practitioner and hospital computer systems to DHBs and PHOs.			
Medical undergraduate and graduate educational materials on tobacco and smoking cessation	Review current course content.	Development of recommendations on options for furthering this action.	Such training should address cultural issues.	A review has identified the best instructional methods for undergraduate education (Spangler et al 2002).
Use breast and cervical cancer screening opportunities for a brief advice intervention on smoking	Consider a pilot programme to explore the benefit and costs of building a routine brief advice intervention into provider contracts.	A report with options for developing this action.	Any pilot would include a population with a relatively high proportion of Māori women.	The value of this approach is unknown, but some benefit is plausible (especially given that smoking is an established risk factor for cervical cancer).
Smoking cessation for specific populations (for pregnant women see Objective 3)				

Actions	What the Ministry will consider	Potential outputs	Māori-specific issues	Comments
Aukati Kai Paipa programmes	Continue to fund the existing services and enhance when resources permit.		These programmes have been evaluated and found to be effective for Māori who prefer face-to-face quit advice.	These programmes have many advantages particularly in terms of cultural appropriateness.
Provide support for Pacific peoples	Continue to fund existing training and delivery services and expand in line with the Pacific Health and Disability Action Plan when funding and evidence of best practice for Pacific people is available.	Culturally appropriate smoking cessation services are provided.		There may be scope for the greater use of church networks for the delivery of such services.
Provide support for hospitalised smokers	Continue to work with DHBs to support hospital-based smoking cessation programmes and improved hospital systems for identifying, supporting and tracking smokers.		This should be a priority for hospitals serving relatively high populations of Māori.	This intervention has the potential to save health sector expenditure by preventing repeat admissions for certain tobacco-related conditions.
Provide support for young people to quit	Evaluate quit rate data for young people who call the Quitline and international evidence about the effectiveness of quit programmes for youth Review cell phone text messaging initiatives as a possible means for working with young people.	Options for cessation in young people are developed.	Specific attention will be given to young Māori women, who have very high smoking rates.	Evidence shows that smoking cessation programmes for young people are less successful than those for adult populations.
Provide support for workers who smoke	Promote supportive environments to encourage employers to develop smoking cessation support policies.	More organisations implementing specific policies to assist staff who smoke to become smoke free.	This should be a priority for organisations that employ relatively high numbers of Māori smokers.	
Additional economic instruments for supporting smoking cessation				

Actions	What the Ministry will consider	Potential outputs	Māori-specific issues	Comments
Remove tobacco products from duty-free sales for people arriving in New Zealand from overseas	In line with FCTC discretionary provisions, develop policy advice to the Government on the implications of removing the current duty-free provisions for tobacco.	Tobacco sold at New Zealand duty-free stores is taxed at the same level as other tobacco sold in New Zealand and excise tax is collected on all tobacco brought into New Zealand.		Duty-free tobacco erodes the value of tobacco taxation as a policy instrument. Canada taxes 'duty-free' tobacco at the same rate as other tobacco.
Consider increasing alcohol tax levels (to decrease *tobacco* consumption)	Provide policy advice to the Government about alcohol taxes and their affect on tobacco consumption.		There may be particular benefits for Māori of higher alcohol taxes given that Māori have a more hazardous pattern of alcohol use (Ministry of Health 1999b).	Some international data suggest increases in alcohol tax decrease alcohol sales and tobacco sales (Wilson 2003).
Additional interventions that would support smoking cessation				
Smoking cessation contests	Work with the HSC and DHBs to consider expanding the use of Quit and Win contests.	Contests involve more participants. Evaluation work is completed.	Evaluation work needs to further clarify the benefit of these contests for Māori.	International evidence favours this intervention and preliminary New Zealand experience is also favourable.
Produce and distribute health education resources focused on smoking cessation	Continue to fund health education resources focused on smoking cessation. Consider making some resources available directly to the public over the Internet.	Demand for printed smoking cessation resources continues to be met. Resources are appropriately updated as required.	Resources need to continue to be appropriate and acceptable to a Māori audience.	
Enhance warnings on cigarette packets or packet inserts	See Table 4.			
Computer-tailored programmes	Consider funding programmes developed in New Zealand and overseas.	A report with options for developing this action.	Such programmes could be modified for a Māori audience.	The programme being developed in New Zealand by Dr Andrew Lawson and in Australia by Dr R Borland and related work in Canada could be included in any review.

Note: The activities in the shaded boxes have a lower priority than other activities and would generally be considered only if funding for tobacco control was substantially increased during the five-year period.

Objective 3: Prevent harm to non-smokers from second-hand smoke

Background

This objective is focused on preventing and reducing harm to fetuses from smoking in pregnancy and harm to children and other adult non-smokers from exposure to second-hand smoke.

Smoking is a major risk factor for low-birth-weight and it is estimated that about 400 New Zealanders die every year from diseases caused by second-hand smoke.

Target groups are pregnant women, children and adult non-smokers.

Smokers also benefit from controls on second-hand smoke through reduced tobacco consumption and less exposure to second-hand smoke from other smokers.

New Zealand made major progress in this area by passing the Smoke-free Environments Act 1990, which introduced controls on smoking in workplaces. In 2003, the Act was amended to expand the scope of the Act by:

- requiring all indoor workplaces including bars, clubs, restaurants, cafés, casinos, and gaming machine venues to be completely smoke free
- requiring schools and educational institutions for young people (not including tertiary institutions) to become completely smoke free, both indoors and outdoors, 24 hours a day, seven days a week
- making it an offence to 'supply' tobacco or herbal products to people aged under 18 in a public place
- requiring vending machines to be accessible only to staff by remote control
- limiting retail displays of tobacco products at each point of sale to 100 packages or 40 cartons, unless the retailer is a specialist tobacconist
- restricting displays of tobacco products to no closer than one metre away from products such as confectionery that are marketed for children
- requiring a prominent 'Smoking Kills' sign at each point of sale
- prohibiting the packaging of tobacco products with other products such as lighters or radios
- extending the provisions for under-18 sale and supply, vending machine restrictions and future health warnings to herbal smoking products as well as tobacco.

This legislation builds on voluntary initiatives in the area of smokefree schools and restaurants, marae, bars, clubs, sports venues, private cars and homes.

There has been some reduction in the prevalence of smoking in pregnancy. A Christchurch study reported that cotinine-validated smoking rates in the first, second and third trimesters were 26.8 percent, 25 percent and 23 percent respectively (Schluter et al 2002). This represents a statistically significant absolute reduction in smoking rates of 4.7 percent, 6.6 percent and

3.8 percent for the first, second and third trimesters, respectively, among pregnant women since 1994. The likely reasons for this decline are the expansion of local and national smoking cessation programmes and higher levels of tobacco taxation.

However, smoking rates among pregnant women are still unacceptably high and there is much scope for further reductions.

Progress can be made in the areas of:

- ensuring compliance with smokefree legislation
- more intensive mass media campaigns that address smoking in pregnancy and the hazards of second-hand smoke.

Potential outcomes

Fetal exposure

Outcomes that could be achieved within the five-year period in relation to fetal exposure include decreases in the:

- prevalence and consumption of smoking throughout pregnancy to reduce fetal exposure to maternal smoking
- incidence of low-birth weight infants.

Children

Outcomes that could be achieved for children within the five-year period include decreases in the:

- exposure to second-hand smoke in homes and cars
- incidence of SIDS
- incidence of hospitalisation for lower respiratory tract infections in pre-school children
- incidence of otitis media (glue ear) and subsequent hearing loss.

General population

Outcomes that could be achieved for the general population within the five-year period include a decrease in exposure to second-hand smoke in workplaces and enclosed public places, hospitality venues, crowded outdoor places, sporting venues, clubs, marae, and private homes and cars.

Supporting evidence

Strong supporting evidence

Strong evidence shows smoking cessation counselling for pregnant women is effective. More limited New Zealand data from existing services are supportive of this conclusion, in terms of both reducing smoking prevalence and increasing smokefree homes and cars.

Strong scientific evidence exists that smoking bans and restrictions are effective.

Insufficient and limited evidence

Insufficient evidence exists that community education is effective in reducing second-hand smoke exposure in the home.

Limited evidence exists that smokefree sponsorship can promote smokefree environments.

Actions for implementation

Table 6 outlines available actions to prevent harm from smoking in pregnancy and from exposure to second-hand smoke.

Table 6: Actions to prevent harm to fetuses, children and adult non-smokers

Actions	What the Ministry of Health will consider	Potential outputs	Māori-specific issues	Comments
Supporting smoking cessation for pregnant women				
Provide support services for counselling pregnant women	Continue to fund the current level of smoking cessation support for pregnant women and evaluate these services. Consider options for expanding these services.	Health workers offer pregnant women who smoke smoking cessation support.	Māori cessation programmes are available to Māori women who are hapu.	
Increase tobacco taxation	See Table 4.			Pregnant women are particularly sensitive to tobacco prices (Ringel and Evans 2001).
Mass media campaign on the hazards of smoking during pregnancy and the importance of quitting before pregnancy	Fund a mass media campaign highlighting the hazards of smoking during pregnancy. Expand on existing campaigns relevant to this audience.	Media campaign.	Pre-testing of campaign themes would include Māori participants. Culturally appropriate media would be used.	These themes could be one part of a larger campaign focused on second-hand smoke. The theme 'don't smoke around pregnant women' could be considered.
Warnings on cigarette packets	See Table 4.			The current warnings which detail the hazards of smoking in pregnancy could be improved.
Evaluate financial incentives by employers to encourage employees to quit	Review the benefits and costs of employers introducing such incentives.			The use of financial incentives has been shown to improve immunisation delivery.

Actions	What the Ministry of Health will consider	Potential outputs	Māori-specific issues	Comments
Health education resources for pregnant women	Review available resources.	Targeted resources distributed.	The review will consider appropriateness for Māori.	
Protecting children and pregnant women from second-hand smoke				
Enforce smokefree environments legislation	See Table 4.			Many pregnant women participate in the workforce for part of their pregnancy.
Protecting children and other adult non-smokers from second-hand smoke				
Enforce smokefree environments legislation	See Table 4.			
Promote smokefree homes and cars	Fund a media campaign on second-hand smoke, backed up with on-the-ground activities.	Health promotion initiatives in place.	Messages need to be appropriate to a Māori audience (relevant to marae, events and festivals).	A Cochrane systematic review of the literature on this issue is underway.
Mass media campaign	Continue to fund the current campaign, expanding when resources are available.	Smokers and non-smokers better informed of the risks of second-hand smoke. Compliance with smokefree environments laws.	Messages need to be appropriate for a Māori audience.	Further investment in this area may save on resources for enforcing new smokefree environments legislation.
Warnings on cigarette packets (about second-hand smoke risks)	See Table 4.			
Health education resources relating to second-hand smoke	Review existing resources.	Resources distributed		There is also scope for improving how these resources are shared nationwide.

Note: The activities in the shaded boxes have a lower priority than other activities and would generally be considered only if funding for tobacco control was substantially increased during the five-year period.

Objective 4: Improve support for monitoring, surveillance and evaluation

Background

This objective is focused on ensuring monitoring, surveillance and evaluation are appropriately used to guide progress with tobacco control in New Zealand. These activities are undertaken in relation to tobacco control by several agencies including the Ministry of Health. The Ministry

funds the monitoring, surveillance and evaluation of programmes, as well as the research required for policy development, for example:

- inclusion of smoking questions in the New Zealand Health Survey in 1992/93, 1996/97 and 2002/03
- surveys on national smoking prevalence (previously carried out annually by a market research company, but may be replaced by modules in the Health Behaviour Survey)
- collection of data annually on the amount of tobacco released for sale by the New Zealand Customs Service
- periodic surveys of school students that include questions on smoking conducted by Action on Smoking and Health (ASH) and the Health Sponsorship Council under Ministry of Health contracts
- inclusion of smoking questions in Censuses (they were included in the 1976, 1981 and 1996 Censuses, and it is expected they will be included in every second Census in future)
- episodic data collection on exposure to second-hand smoke in workplace settings
- collection of data on smokefree issues by public health units in DHBs (eg, smokefree policies in schools and other sites, controlled purchase operations, complaints about second-hand smoke and advertising).

The Ministry commissions evaluation projects on major activities to ensure funding is directed at effective initiatives.

The Ministry also commissions research to support its policy development role (eg, research on tobacco constituents and research on the mortality and morbidity burden of second-hand smoke in New Zealand).

Other agencies playing a role in the tobacco control research area include:

- the Health Sponsorship Council (undertaking and funding research)
- the Health Research Council (funding research)
- the Foundation for Research on Science and Technology (funding research)
- departments of public health at universities
- NGOs concerned with tobacco control (eg, the Cancer Society, the Heart Foundation, ASH, the Quit Group and Te Hotu Manawa Māori).

Potential outcomes

Outcomes that could be achieved within the five-year period include:

- improved interagency co-ordination of monitoring, surveillance and evaluation activities
- greater certainty for the health sector about the routine surveys in which tobacco-related data are collected
- more thorough consideration of how to use data routinely collected
- better information on tobacco constituents and sales.

Actions for implementation

Table 7 outlines available actions to improve monitoring, surveillance and evaluation in tobacco control. Development of many of these activities will require close communication and liaison between several agencies.

Table 7: Actions to improve monitoring, surveillance and evaluation in tobacco control

Actions	What the Ministry will consider	Potential outputs	Māori-specific issues	Comments
Plan for monitoring, surveillance and evaluation of tobacco control activities	Continue to co-ordinate the tobacco control monitoring, surveillance and evaluation activities around the actions outlined below.	A stocktake report of tobacco monitoring in New Zealand.	Over-sampling of Māori in surveys to ensure adequate data is a priority.	
Interagency co-ordination	In line with FCTC discretionary provisions about greater co-ordination and research, the relevant agencies will meet at least annually to share their plans for the next year.	Relevant agencies meet annually. No unnecessary duplication of activities.	Appropriate input from agencies with an interest in Māori research activities will be sought.	In a country the size of New Zealand there is an opportunity for a well co-ordinated approach to surveillance.
New Zealand Health Monitor surveys	Continue with current plans for the regular health behaviour survey, the New Zealand Health Survey covering tobacco use (every two years).	Routine collection, analysis and reporting of data.	These surveys are designed to ensure a representative sample of Māori.	Data will be collected on a range of tobacco related areas including quitting.
Smoking question in the Census	The Ministry will liaise with Statistics New Zealand to promote this question being included in the next Census.	The question included in the Census and data analysed and published.	Data analysis fully explores smoking by Māori.	This data source is particularly critical for examining smoking patterns by different ethnic, socioeconomic and occupational groups.
Surveillance using Quitline data	The Ministry will consider working with the Quit Group to explore these data as a source of routine surveillance information.	A report on this data source for routine surveillance (completed with the Quit Group).	The quality of the ethnicity data obtained by the Quit Group will be considered.	The Quit Group uses these data for ongoing service development and quality control. Experience to date suggests this is a high quality data source.
Monitor nicotine, carcinogen and tar levels in tobacco	Review the appropriate monitoring options.			The tobacco industry could be required to pay for such testing.

Actions	What the Ministry will consider	Potential outputs	Māori-specific issues	Comments
Routine surveillance of tobacco expenditure data in the Household Economic Survey.	Review the benefits and costs of this data source for informing tobacco taxation policy.	A report on the options for routine surveillance in this area.	The impact of tobacco expenditure on financial hardship has particular relevance to Māori.	Previous work using this data source has provided information on the likely impact of tobacco taxation on low-income New Zealanders (see Wilson 2003).
Routine surveillance of second-hand smoke exposure in workplace settings.	Review the appropriate survey options.	Analysis from informants from the HSC monitor, Health Behaviour Survey and New Zealand Health Information Service undertaken regularly.	Issues around second-hand smoke exposure in workplaces employing Māori will be highlighted as a priority.	Ideally such surveillance should encompass attitudes to, and knowledge of the effects of, second-hand smoke by workers and the public.
Routine (weekly) surveillance of supermarket tobacco sales data	Review the benefits and costs of this data source.	A report on this data source for routine surveillance.	This data source can provide information on tobacco sales to low-income areas.	Previous work suggests this is a cost-effective data source.
Routine surveillance of total tobacco sales on a DHB area basis	Review the benefits and costs of this approach.	A report on the options.		The tobacco industry could be required by law to provide monthly sales data (as is the case in Canada).
Surveillance of tobacco promotion in New Zealand	Review of the benefits and costs of periodic surveillance of tobacco promotion on television and in films and imported magazines.	A report on the options for routine surveillance in this area.	Smoking activity on Māori television could be included.	
Surveillance of the consumption of smoking cessation pharmacotherapy	Review of the available data sources (particularly for NRT and bupropion) and feasibility of surveillance.	A report on the options for routine surveillance in this area.		
Ensure regular full disclosure by the tobacco industry of all its survey data	Review the benefits and costs of this approach.	A report on the options.		The tobacco industry could be required by law to provide this information on a routine basis.

Actions	What the Ministry will consider	Potential outputs	Māori-specific issues	Comments
Monitor tobacco exports	Data are routinely obtained from Statistics New Zealand.	Routine data are provided to the relevant agencies and published in *Tobacco Facts*.		To improve its international standing on health and development issues, the Government may wish to tax or restrict tobacco exports.
Share information with Australian agencies involved in tobacco control	Continued participation in Australia's Tobacco Policy Officers Group. Continued sharing of information with Quit Victoria.			Much of the tobacco control activity in Australia has some relevance to New Zealand.
Evaluate the Smoke-free Environments Act 1990	Monitor the Act's impact on retail trade. Evaluate levels of exposure to second-hand smoke in hospitality venues. Assess the impact of smokefree legislation in non-office areas. Survey employer and employee perceptions of the Act's smokefree provisions.		Non-office assessments will have a particular emphasis on workplaces with a high Māori workforce.	
Monitor the prevalence of smoking among Māori and pregnant women	Identify mechanisms to collect uniform data.		Greater information about Maori prevalence will assist help programme targeting.	

Note: The activities in the shaded boxes have a lower priority than other activities and would generally be considered only if funding for tobacco control was substantially increased during the five-year period.

Objective 5: Improve infrastructural support and co-ordination for tobacco control activities

Background

This objective focuses on maintaining and developing a strong tobacco control infrastructure in New Zealand. The infrastructure requires sufficient funding, a skilled workforce and supportive organisational arrangements. It also needs co-ordination between local and national levels, providers and funders, and different government agencies.

Opportunities for co-ordination have been enhanced with better communication technology and the accessibility of the Internet. Local, national and international conferences and workshops provide opportunities for the tobacco control workforce to share knowledge and experiences.

Potential outcomes

Outcomes that could be achieved within the five-year period include better:

- overall funding for tobacco control
- capacity for the Ministry to advance complex issues in tobacco control (ie, the regulation of cigarette content and tobacco taxation)
- support for the tobacco control workforce throughout the country
- co-ordination between local and national tobacco control activities, especially for mass media campaigns and regulation enforcement (eg, future tobacco tax increases could be preceded by a substantial mass media campaign focused on smoking cessation)
- co-ordination between public sector and NGO activities, especially around World Smokefree Day
- co-ordination between private sector and public sector activities, especially for providers of smoking cessation counselling and pharmacotherapy
- co-ordination between the Ministry of Health and other government agencies
- synergy between tobacco control activities and public health interventions relating to physical activity promotion, mental health promotion and minimising harm from alcohol misuse.

Actions for implementation

Table 8 outlines the available actions to improve infrastructure and co-ordination in tobacco control in New Zealand.

Table 8: Actions to improve infrastructure and co-ordination for tobacco control

Actions	What the Ministry of Health will consider	Potential outputs	Māori-specific issues	Comments
Overall funding for tobacco control				
Improve the targeting and overall funding for tobacco control	Policy advice to the Government about funding issues.	Detailed advice to the Government.	Māori, particularly young Māori women, are a target group.	Several jurisdictions have implemented 'hypothecated' taxes to ensure improved funding for tobacco control (VHPF 2002).
Infrastructure support – skilled smokefree/Auahi Kore workforce				
Develop expertise within the sector	Plan for an effective tobacco control workforce within New Zealand	The number of staff working specifically on tobacco is appropriate to the need.	The workforce with expertise on Māori and tobacco control will be appropriate to the need.	
Smoking cessation guidelines for health workers	See Table 5.			

Actions	What the Ministry of Health will consider	Potential outputs	Māori-specific issues	Comments
Enhance the training of health workers	See Table 5.			
Reminder systems used by providers	See Table 5.			
Medical undergraduate and graduate educational materials on tobacco and smoking cessation	See Table 5.			
Annual National Smokefree and Auahi Kore conferences	Continue to fund these conferences.	Successful annual conferences, with proceedings published and distributed.	A separate conference for training and networking among the Auahi Kore workforce will continue to be held in alternate years.	
Three-yearly international tobacco and health conference	Representatives of the tobacco control workforce will attend these conferences and incorporate relevant information into the tobacco control programme.	The tobacco control workforce is up to date with tobacco control research and best practice.	The Ministry will support Māori tobacco control participation.	This conference provides opportunities to obtain unpublished, up-to-date information on tobacco control and to establish networks for exchanging information.
Co-ordination and consultation				
Regular consultation	Ministry staff will meet regularly with key organisations to share information. The Ministry will continue to be open to feedback from the tobacco control sector on strategic approaches and for joint planning.	Ongoing information sharing.	The regular consultation process will include Māori organisations.	
Smokefree co-ordination services	Continue to fund and improve the effectiveness of co-ordination mechanisms at national, regional and local levels.	Contracts reflect enhanced co-ordination.		

Actions	What the Ministry of Health will consider	Potential outputs	Māori-specific issues	Comments
Communication with other government agencies with interests in tobacco control	Regularly consult with relevant agencies on tobacco control issues.	Routine meetings and information exchange.	These relationships will strengthen the appreciation of the critical importance of tobacco control for Māori.	
Primary health activities	The Ministry will work with DHBs to implement best practice models for working with PHOs to enhance tobacco control.			PHOs are ideally set up for smoking cessation-related interventions.

Note: The activities in the shaded boxes have a lower priority than other activities and would generally be considered only if funding for tobacco control was substantially increased during the five-year period.

References

Abernathy TJ, Bertrand LD. 1992. Preventing cigarette smoking among children: results of a four-year evaluation of the PAL program. *Can J Public Health* 83: 226–9.

Baker M, McNicholas A, Garrett N, et al. 2000. Household crowding a major risk factor for epidemic meningococcal disease in Auckland children. *Pediatric Infectious Diseases Journal* 19: 983–90.

Borman B, Wilson N, Maling C. 1999. Socio-demographic characteristics of New Zealand smokers: Results from the 1996 Census. *New Zealand Medical Journal* 112: 460–3.

Broughton J. 1996. *Puffing up a Storm: 'Kapai te Torori'*. Dunedin: University of Otago.

Brown WV. 2000. Risk factors for vascular disease in patients with diabetes. *Diabetes, Obesity and Metabolism* 2(Suppl 2): S11–8.

Congdon NG. 2001. Prevention strategies for age related cataract: present limitations and future possibilities. *British Journal of Ophthalmology* 85: 516–20.

Conrad KM, Flay BR, Hill D. 1992. Why children start smoking cigarettes: predictors of onset. *British Journal of Addiction* 87: 1711–24.

Cowan SF. 2003. Report to the Ministry of Health on the Smokechange Programme. Unpublished.

Crampton P, Salmond C, Woodward A, et al. 2000. Socioeconomic deprivation and ethnicity are both important for anti-tobacco health promotion. *Health Educ and Behav* 27: 317–27.

Crampton P. 2002. Cutting up the health funding cake: targeting vs universalism. *PHA News* 5(4): 1–3.

de Zwart KM, Sellman JD. 2002. Public knowledge and attitudes regarding smoking and smoking cessation treatments. *New Zealand Medical Journal* 115: 219–22.

Durie M. 1994. *Whaiora: Māori health development*. Auckland: Oxford University Press.

Elder JP, Wildey M, de Moor C, et al. 1993. The long-term prevention of tobacco use among junior high school students: classroom and telephone interventions. *Am J Public Health*83: 1239–44.

Fichtenberg CM, Glantz SA. 2002. Effect of smoke-free workplaces on smoking behaviour: systematic review. *British Medical Journal* 325: 188–91.

Fiore MC, Bailey WC, Cohen SJ, et al. 2000. *Treating Tobacco Use and Dependence: A clinical practice guideline*. Rockville, MD: US Department of Health and Human Services.

Hopkins DP, Briss PA, Ricard CJ, et al. 2001. Reviews of evidence regarding interventions to reduce tobacco use and exposure to environmental tobacco smoke. *American Journal of Preventive Medicine* 20(2 Suppl): 16–66.

Howden-Chapman P, Tobias M (eds). *Social Inequalities in Health: New Zealand 1999*. Wellington: Ministry of Health.

IARC. 2002a. Summary of data reported and evaluation. In: *Involuntary Smoking (Group 1)* (Vol 83). France: International Agency for Research on Cancer.

IARC. 2002b. Summary of data reported and evaluation. In: *Tobacco Smoking and Tobacco Smoke (Group 1)* (Vol 83). France: International Agency for Research on Cancer.

Jackson R, Beaglehole R, Yee RL, et al. Trends in cardiovascular risk factors in Auckland, 1982 to 1987. *New Zealand Medical Journal* 103: 363–5.

Jimenez S, Labeaga JM. 1994. Is it possible to reduce tobacco consumption via alcohol taxation? *Health Economics* 3: 231–41.

Jones BH, Cowan DN, Knapik JJ. 1994. Exercise, training and injuries. *Sports Medicine* 18: 202–14.

Kaufman KR, Brodine S, Shaffer R. 2000. Military training-related injuries: surveillance, research, and prevention. *American Journal of Preventive Medicine* 18(3 Suppl): 54–63.

Kawachi I, Marshall S, Pearce N. 1991. Social class inequalities in the decline of coronary heart disease among New Zealand men, 1975–1977 to 1985–1987. *International Journal of Epidemiology* 20: 393–8.

Kinane DF, Chestnutt IG. 2000. Smoking and periodontal disease [Medline abstract]. *Critical Reviews in Oral Biology and Medicine* 11: 356–65.

Laugesen M, Clements M. 1998. *Cigarette Smoking Mortality among Māori, 1954–2028*. Wellington: Te Puni Kōkiri.

Laugesen M, McClellan V. 2000. *Monitoring, Surveillance and Evaluation of Tobacco Control Activities in New Zealand: An options paper*. Report to the Health Funding Authority. Auckland: Health New Zealand and Research and Evaluation Services.

Laugesen M, Swinburn B. 2000. New Zealand's tobacco control programme 1985–1998. *Tobacco Control* 9: 155–62.

Lumley J, Oliver S, Waters E. 2004. Interventions for promoting smoking cessation during pregnancy (Cochrane Review). *The Cochrane Library* (issue 1). Chichester UK: John Wiley & Sons Ltd.

Miller M, Hemenway D, Bell NS, et al. 2000a. Cigarette smoking and suicide: A prospective study of 300,000 male active-duty army soldiers. *American Journal of Epidemiology* 151: 1060–3.

Miller M, Hemenway D, Rimm E. 2000b. Cigarettes and suicide: A prospective study of 50,000 men. *American Journal of Public Health* 90: 768–73.

Minister of Health. 2000. *New Zealand Health Strategy: Discussion document*. Wellington: Ministry of Health.

Minister of Health. 2001. *Primary Health Care Strategy*. Wellington: Ministry of Health.

Minister of Health. 2002. *Pacific Health and Disability Action Plan*. Wellington: Ministry of Health.

Minister of Health. 2003. *The New Zealand Cancer Control Strategy*. Wellington: Ministry of Health and the New Zealand Cancer Control Trust.Minister of Health and Associate Minister of Health. 2002. *He Korowai Oranga: Māori Health Strategy*. Wellington: Ministry of Health.

Ministry of Health. 1997. *Progress on Health Outcome Targets: Te Haere Whakamua ki ngā Whāinga Hua mō te Hauora: The state of the public health in New Zealand 1997*. Wellington: Ministry of Health.

Ministry of Health. 1998a. *Child Health Programme Review*. Wellington: Ministry of Health.

Ministry of Health. 1998b. *Child Health Strategy*. Wellington: Ministry of Health.

Ministry of Health. 1998c. *Smokefree Enforcement Manual*. Wellington: Ministry of Health.

Ministry of Health. 1998d. *National Drug Policy Part 1: Tobacco and Other Drugs*. Wellington: Ministry of Health.

Ministry of Health. 1999. *Our Health, Our Future: Hauora Pakari, Koiora Roa: The health of New Zealanders 1999*. Wellington: Ministry of Health.

Ministry of Health. 1999b. *Taking the Pulse: the 1996/97 New Zealand Health Survey*. Wellington: Ministry of Health.

Ministry of Health. 2002a. *Reducing Inequalities in Health*. Wellington: Ministry of Health.

Ministry of Health. 2002b. *Tobacco Facts: May 2002*. Occasional Report No. 2. Wellington: Ministry of Health.

Ministry of Health. 2003. *Achieving Health for all People: Whakatutuki te Oranga Hauora mo ngā Tāngata Katoa: A framework for public health action for the New Zealand Health Strategy*. Wellington: Ministry of Health.

Ministry of Health. 2004. *Public Health Service Handbook*. Wellington: Ministry of Health.Molyneux A, Lewis S, Antoniak M, et al. 2002. Is smoking a communicable disease? Effect of exposure to ever smokers in school tutor groups on the risk of incident smoking in the first year of secondary school. *Tobacco Control* 11: 241–5.

Muggli ME, Pollay RW, Lew R, et al. 2002. Targeting of Asian Americans and Pacific Islanders by the tobacco industry: results from the Minnesota Tobacco Document Depository. *Tobacco Control* 11: 201–9.

NHC. 1998. *The Social, Cultural and Economic Determinants of Health in New Zealand: Action to improve health*. Wellington: National Health Committee.

Paterson J, Tukuitonga C, Butler S, et al. 2002. Awareness of sudden infant death syndrome risk factors among mothers of Pacific infants in New Zealand. *New Zealand Medical Journal* 115: 33–5.

Pearce N, Bethwaite P. 1997. Social class and male cancer mortality in New Zealand, 1984–7. *New Zealand Medical Journal* 110: 200–2.

Pearce NE, Davis PB, Smith AH, et al. 1985. Social class, ethnic group, and male mortality in New Zealand, 1974–8. *Journal of Epidemiology and Community Health* 39: 9–14.

Reeder AI, Williams S, McGee R, et al. 1999. Tobacco smoking among fourth form school students in Wellington, New Zealand, 1991–97. *Australian and New Zealand Journal of Public Health* 23: 494–500.

Reid P, Pouwhare R. 1992. *Te-Taonga-mai-Tawhiti: The Gift from a Distant Place*. Auckland: Niho Taniwha.

Rooney BL, Murray DM. 1996. A meta-analysis of smoking prevention programs after adjustment for errors in the unit of analysis. *Health Educ Q* 23: 48–64.

Schluter PJ, Ford RP, Ford CJ. 2002. A biochemical prevalence study of smoking in pregnancy for a cross-section of women in Christchurch, New Zealand. *Aust NZ J Public Health*26: 231–5.

Simmons G, Martin D, Stewart J, et al. 2001. Carriage of Neisseria meningitidis among household contacts of patients with meningococcal disease in New Zealand. *European Journal of Clinical Microbiology and Infectious Diseases* 20: 237–42.

Spangler JG, George G, Foley KL, et al. 2002. Tobacco intervention training: Current efforts and gaps in US medical schools. *JAMA*288: 1102–9.

Stamler R, Shipley M, Elliott P, et al. 1992. Higher blood pressure in adults with less education. Some explanations from INTERSALT. *Hypertension* 19: 237–41.

Stellman SD, Resnicow K. 1997. Tobacco smoking, cancer and social class. *IARC Scientific Publications* (138): 229–50.

Tanskanen A, Tuomilehto J, Viinamaki H, et al. 2000. Smoking and the risk of suicide. *Acta Psychiatrica Scandinavica* 101: 243–5.

Tobias M, Cheung J. 2001. *Inhaling Inequality: Tobacco's contribution to health inequality in New Zealand*. Public Health Intelligence Occasional Bulletin No. 7. Wellington: Ministry of Health.

Tukuitonga CF, Stewart A, Beaglehole R. 1990. Coronary heart disease among Pacific Island people in New Zealand. *New Zealand Medical Journal* 103: 448–9.

Vartiainen E, Paavola M, McAlister A, et al. 1998. Fifteen-year follow-up of smoking prevention effects in the North Karelia youth project. *Am J Public Health*88: 81–5.

VHPF. 2002. *Tobacco Taxes: Financing good health*. Carlton South, Australia: Victorian Health Promotion Foundation.

Whitlock G, MacMahon S, Vander-Hoorn S, et al. 1997. Socioeconomic distribution of smoking in a population of 10,529 New Zealanders. *New Zealand Medical Journal* 110: 327–30.

Whitlock G, MacMahon S, Vander Hoorn S, et al. 1998. Association of environmental tobacco smoke exposure with socioeconomic status in a population of 7725 New Zealanders. *Tobacco Control* 7: 276–80. Available at: http://tc.BMJjournals.com/cgi/content/full/7/3/276.

Wilson N. 2003. *Review of the Evidence for Major Tobacco Control Interventions*. Wellington: Ministry of Health.