



Use of four major tobacco control interventions in New Zealand: a review

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Abstract

Aims To identify the extent to which four major population-level tobacco control interventions were used in New Zealand from January 2000 to June 2007.

Methods We selected the four population-based tobacco control interventions with the strongest evidence base. For each intervention, we undertook literature searches to identify the extent of their use in New Zealand during the study period and made comparisons with the other 29 OECD countries.

Results *Increasing the unit price of tobacco:* New Zealand has high tobacco prices, but the policy on tax has several limitations relative to best practice within OECD countries. In particular, the high price appears to be shifting many smokers from factory-made cigarettes to loose tobacco, rather than stimulating quitting.

Controls on marketing: While New Zealand compares favourably with most other OECD countries for tobacco marketing controls, some jurisdictions have made more progress in specific areas (e.g. eliminating point-of-sale product displays and removing misleading descriptors on packaging).

Mass media campaigns: The country routinely invests in these campaigns, but the budget is only around \$1.20 per capita per year. Some design aspects of the campaigns are progressive, but comparisons with other countries indicate potential for improvements (e.g. learning from counter-industry campaigns in the USA).

Smokefree environments regulations: New Zealand was one of the first OECD countries to implement comprehensive smokefree workplaces legislation (including restaurants and bars) and it still compares well. But gaps remain when compared to some other OECD jurisdictions (e.g. no smokefree car laws).

Conclusions There is still substantial scope for New Zealand to catch up to OECD leaders in these key tobacco control areas. In particular, there needs to be higher tax levels for loose tobacco (relative to factory-made cigarettes) and the elimination of residual marketing. There are also important gaps in exploiting synergies between interventions in this country.

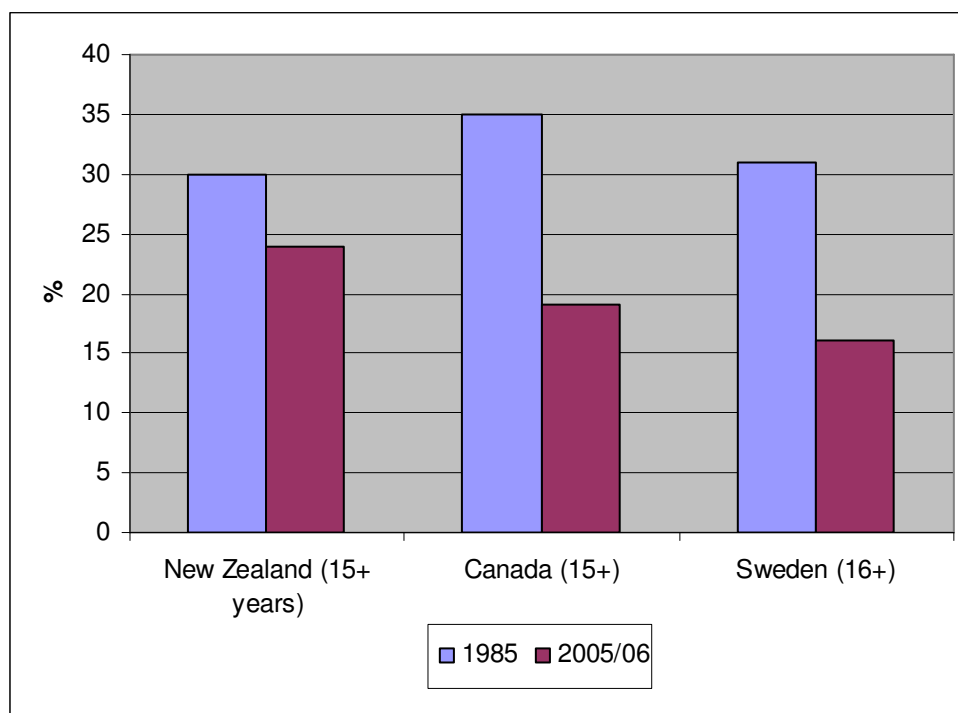
The international literature reports high quality scientific evidence for a number of the population-level tobacco control interventions used in New Zealand.¹ In many cases, there is supportive New Zealand-specific evidence for such interventions being effective.¹ Aspects of New Zealand's overall tobacco control programme have been reviewed previously,²⁻⁵ but not since 2000.

New Zealand ranks ninth lowest among the 30 OECD countries for adult smoking prevalence,⁶ but prevalence is considerably higher than in the leading countries, with

for example an absolute gap of over 6% compared to countries such as Australia (at around 17%)⁶ or Sweden (around 16%).⁷ Also, the overall adult smoking prevalence for New Zealand masks large disparities between population groups, with for example, very high adult Māori smoking rates (46% in 2006) which have changed little over the last 20 years or more.⁸ Some other OECD countries have also had much steeper declines in smoking prevalence rates compared to New Zealand (e.g. Canada and Sweden—see Figure 1).

The persistently high and slowly declining smoking prevalence in New Zealand and increasing disparities in smoking prevalence by ethnicity and socioeconomic position highlights the need to critically examine New Zealand's tobacco control efforts. This review aimed to compare the extent to which four best practice population-level tobacco control interventions are being used in New Zealand, and in comparison with other OECD countries.

Figure 1. Adult smoking prevalence in New Zealand, Canada and Sweden (1985 and 2006)



Sources: Health Canada data⁹ and two New Zealand data sources^{8,10} (with both countries reporting data for 2006 and prevalence for both daily smokers and non-daily smokers combined). A different survey methodology was used for the 2006 data⁸ in New Zealand. The results for Sweden are for daily smokers and are for 2004–2005.⁷

Methods

Selection of major interventions—For this article we selected the four population-based interventions that were best supported by evidence for effectiveness from either a Cochrane systematic review or a systematic review undertaken by a United States Task Force (as reviewed elsewhere¹). These were:

- *Increasing the unit price for tobacco products;*
- *Controls on tobacco product marketing;*
- *Mass media campaigns; and*
- *Smokefree environments regulations.*

As the focus for this review was on population-level interventions, we did not consider programmes for individual-level provision of smoking cessation advice and support (e.g. Quitlines, although Quitline advertising is covered within mass media campaigns, since such campaigns may stimulate quitting that is independent of cessation service usage).

We recognise that there are many other tobacco control interventions where there may be benefits for tobacco control, but where the evidence-base is not as well established (e.g. school-based health education, age limits on purchasing/use of tobacco, smokefree sponsorship, and increasing unpaid media coverage of tobacco-related matters).

There are also interventions that can address upstream societal determinants of smoking such as poverty, inequality, poor education, unemployment, and discrimination. However, these were out of the scope of this review. More radical tobacco control strategies such as reforming the structure of the tobacco industry or market are also not included in this review, as they are without an established evidence-base. However, such new strategies^{11–14} need serious consideration in designing future tobacco control policy, either beside or overarching “traditional” and evidence-based tobacco control interventions that are the focus of this review.

We also recognise a particular need to review tobacco control policies for Māori, given the very high smoking prevalence rates of Māori. Such a review is being currently undertaken by our Māori health research colleagues.

Literature searches—To identify relevant New Zealand data, we undertook Medline searches for articles relating to tobacco control interventions, using the search terms “Zealand” and “smoking or tobacco” for the period January 2000 to 30 June 2007.

To identify New Zealand literature that was not Medline-indexed, the following websites were examined for reports and studies: the Ministry of Health, the Quit Group, the Health Sponsorship Council, the Cancer Society, the Heart Foundation and ASH (New Zealand). Non-Medline indexed literature was identified with the search engine *Google Scholar*.

Analysis of each major intervention—For each of the major interventions, we aimed to determine the extent to which the intervention was being applied relative to best practice within other OECD countries. Comparisons for the other 29 countries who were OECD members in 2006 were generally based on *The Tobacco Atlas*⁶ (but with other sources cited where appropriate).

Results

Increasing the unit price of tobacco (for cessation and preventing initiation)

The evidence-base on tobacco taxation in this country has been reviewed previously.^{15,16} We reviewed the implementation of tobacco taxes in New Zealand during the study period.

New Zealand’s tobacco tax level as a proportion of the pack price was only 19th out of 25 OECD countries for which data were published in 2006.⁶ A more relevant comparison considers relative purchasing power to indicate affordability of tobacco products. A year 2000 comparison ranked 22 OECD countries using the “Big Mac index of cigarette affordability”, and ranked New Zealand as having the third most expensive cigarettes.¹⁷

A similar analysis published in 2002 found that New Zealand cigarettes were the most expensive of all OECD countries,¹⁸ and that Marlboro and “local brand” cigarettes in New Zealand were both the fifth most expensive among all OECD countries when ranked by minutes of labour required to buy a packet. In 2004, an analysis that included 28 OECD countries ranked affordability using pack price in relation to GDP per capita. It found New Zealand cigarettes were the second most expensive after Turkey, one of the poorest OECD members.¹⁹

More recent published analyses were not available, so we obtained 2005 price data for a pack of Marlboro cigarettes in New Zealand and for EU countries in the OECD (using supplementary online data from a published article²⁰ and using GDP data per capita for 2005 from the IMF to allow for purchasing power parity-adjustments²¹). The adjusted New Zealand price was more expensive than all the 22 other European OECD countries except for the UK which was only slightly higher.

Despite these high tobacco prices in New Zealand, various other aspects of the price/tax intervention are underused, compared to other jurisdictions. Firstly, there are very infrequent increases in tobacco tax above the annual inflation-adjustment [none for over 7 years (i.e. since May 2000) and only two above-inflation rises in the tax on manufactured cigarettes since 1991].

Secondly the tax is not tied to funding for tobacco control or health-related activities. This is despite examples of the successful use of dedicated taxes within OECD jurisdictions, and the evidence that voters are more likely to support such taxes.^{15,22} Thirdly, there is no evidence of other measures to maximise the effect of taxation increases as a public health intervention (e.g. concurrent media campaigns on smoking cessation when tax increases occur).

Finally, the impact of price appears to be being undercut by the very high proportion of smokers who now smoke roll-your-own cigarettes in New Zealand (60% of Māori smokers and 49% of European/Other ethnicity smokers,⁸ which are very high levels compared to other OECD countries²³). This means that without any additional tax on loose tobacco, smokers can keep smoking (for the same expenditure after a price increase) by rolling thinner cigarettes with around half the amount of tobacco of factory-made cigarettes.²⁴

Controls on tobacco marketing

Existing controls on tobacco marketing were slightly changed in 2003 with the Smoke-free Environments Amendment Act (SEAA), which introduced further restrictions on tobacco displays at the point-of-sale. These included restrictions on the number and type of tobacco packets and cartons which can be displayed, and requirements that tobacco displays should not be visible from outside the shop, and should not be within a metre of sweets and other children’s products. The Framework Convention for Tobacco Control, which New Zealand ratified in 2004,²⁵ requires comprehensive bans on tobacco advertising and promotion.²⁶

New Zealand’s controls on tobacco marketing compare favourably with most other OECD countries. A comparison using 2005 data suggested that New Zealand was one of 17 OECD countries (out of 30) to have advertising restrictions on television, radio, and in domestic print media.⁶ Also in 2005, New Zealand was one of only four OECD countries to be classified in *The Tobacco Atlas* as having a “comprehensive

advertising ban”—including billboards, point-of-sale advertising, and event sponsorship.⁶

Nevertheless, tobacco marketing has not been completely eliminated. Block displays of up to 100 packs of cigarettes per point-of-sale are still permitted, and tobacco products are prominently displayed in almost all of the most commonly used retail environments—dairies, convenience stores, supermarkets, and petrol stations. More rigorous interventions used in some OECD countries are not used in New Zealand. For example, Iceland,²⁷ and five Canadian provinces,^{28,29} have point-of-sale product display bans.

By requiring large warning labels, other countries also displace more marketing images from the front and backs of tobacco packs than does New Zealand. In 2005, New Zealand lagged behind 15 OECD countries which had health warnings that were required to cover 30% or more of the pack.⁶ New Zealand is adopting graphic warnings during 2008, but these still only cover 30% of the front of the pack (the most significant surface for smokers), compared with 50% in Canada. This is despite the evidence-base for the impact of large size Canadian graphic warnings on smokers.^{30,31}

Descriptors such as “light” and “mild” are marketing devices to reassure smokers and suggest that such cigarettes have less adverse health effects.³² These descriptors are banned in at least 23 OECD countries³³ and will shortly be in Canada also.³⁴ “Light and mild” descriptors are not banned in New Zealand, although this issue is subject to a current (2008) Commerce Commission Enquiry. The Commission has however, chosen to ignore the issue of “brand names”,³⁵ despite these also being potentially misleading—e.g. the “Freedom” brand.³⁶

Colour coding also appears to be being used by tobacco companies in New Zealand to signal “light and mild” cigarettes³⁷ (possibly in anticipation of a ban on the descriptors), and this issue may also be outside the Commerce Commission’s considerations.

Mass media campaigns (cessation and preventing initiation)

Mass media campaigns have been extensively used internationally and in New Zealand for tobacco control. We reviewed the use of tobacco control mass media campaigns at a national level in New Zealand since January 2000. Not included are more local community level mass media campaigns, or where media are used to promote regional quit and win contests.

Recent mass media campaigns have focused on promoting smokefree workplaces, homes and cars; promoting quitting (including calling the national Quitline); explaining the new smokefree law (the SEAA 2003); and promoting smokefree messages to Māori and Pacific peoples (for details see the Quit Group and Health Sponsorship Council websites and the website: www.secondhandsmoke.org.nz).

One analysis detailed national-level monthly mass media campaign expenditure for three 12-month periods (late 2002 to late 2005).³⁸ From this source, the average annual expenditure can be calculated to be \$2.3 million by the Quitline and \$2.8 million for other agencies (e.g. the Health Sponsorship Council), and represents around \$NZ 1.20 per capita per year. When this amount is adjusted by relative

purchasing power (using GDP per capita values for New Zealand and the United States) it equates to only \$US 0.57 per capita. This can then be compared with data from particular US states, which have reported two to four times higher per capita advertising expenditures for youth campaigns alone (i.e. \$US 2.35 per capita for Arizona, \$US 2.16 for Massachusetts, and \$US 1.29 for Florida³⁹) or for all campaigns combined (e.g. \$US 1.32 per capita for 2000/01 in California).⁴⁰

Nevertheless, the available literature on the New Zealand campaigns⁴¹⁻⁴⁴ suggests that some campaigns are well targeted for priority audiences and are well designed. For example:

- A focus on attempting to ensure appropriateness for priority audiences and to reduce inequalities through the use of Māori participants in many of the advertisements, as well as a specific campaign designed by Māori for a Māori audience (i.e. the *It's About Whanau* campaign). Similarly, the Māori Television channel has been used for showing advertisements.
- A campaign for a Pacific peoples audience.⁴⁵
- Use of campaigns of proven efficacy—e.g. adaptation of advertisements designed in Australia for many of the advertisements shown in New Zealand.
- A common focus on the health threat theme, and the combining of this with a message for alleviating this threat (i.e. calling the Quitline).

When compared to other OECD countries however, it is possible to identify potential for improvements in the New Zealand mass media campaigns. These include the following:

- None of the smoking cessation focused mass media campaigns have been linked with tobacco tax increases, in order to maximise the impact of the ensuing price increase. This is in contrast to some other OECD jurisdictions, e.g. various US states.⁴⁶
- None of the mass media campaigns have been linked with the messages on the warning labels on cigarette packaging, e.g. in contrast to Australia.⁴⁷
- No government-funded media campaigns have focused on exposing the nature of the tobacco industry. Such industry “denormalisation” campaigns have been very successful in other OECD jurisdictions: California (from 1990), Florida (from 1998), across the USA (by the American Legacy Foundation), Norway, and the Canadian province Quebec (reviewed elsewhere⁴⁸). In particular there has been a lack of the use of adolescent tobacco use prevention campaigns, using counter-industry themes—despite the growing US-based evidence of their effectiveness.⁴⁹⁻⁵²

Furthermore, there is some evidence for the deliberate constraint of resources allocated to mass media campaigns to prevent excessive demand on the Quitline Service, such as following the implementation of the smokefree workplaces and public places in December 2004.⁵³ Instead, there should be an increase in funding of mass media campaigns at such times to exploit the synergies of co-interventions coupled with an increase in resources for cessation support to address the increased demand.

Smokefree environments regulations

From an international perspective, New Zealand's smokefree law of 1990 was an advanced piece of tobacco control legislation. The updated 2003 legislation (implemented during 2004) extended smokefree areas to all restaurants, bars, and other indoor workplaces (except for prisons cells, and designated smoking rooms in health care institutions, residential disability care institutions, or rest homes). It also prohibited smoking in schools and early childhood centres, in taxis and other public transport, casinos, and in gaming machine venues. Smoking in outdoor settings is prohibited in the grounds of all schools by this legislation.

Local regulations or policies initiated by some local governments (Territorial Local Authorities) cover some council-owned parks (e.g. in South Taranaki and Upper Hutt), the grounds of some hospitals, some stadiums, and the campuses of a university (Massey).

In 2005, New Zealand was one of only seven OECD countries to have a full ban on smoking in government buildings.⁶ In 2004 it became the third country in the world to ban smoking indoors in bars and restaurants (after Ireland and Norway), though this legislation was a decade behind that for California.⁵⁴

In 2007, New Zealand was still one of only 10 OECD countries with comprehensive indoor workplace smoking bans that included bars and restaurants (though some other OECD countries such as Australia and the US have state-wide bans).⁵⁴

Table 1 details the range of environments covered by smokefree regulations. These are relatively broad compared to most other OECD countries. Nevertheless, in certain ways the New Zealand coverage of smokefree environments lags behind. For example, there are a number of jurisdictions where smoking is banned outside on beaches, in parks, playgrounds, stadiums, bus shelters, the outdoor sections of hospitality venues, common areas of housing estates, and in the outdoor areas of a whole town in California.⁵⁵⁻⁵⁸

More specifically, these restrictions include all Californian public playgrounds;⁵⁹ public playgrounds in over 20 New South Wales local authorities;⁶⁰ and all park, sports fields, playgrounds, beaches, and bus shelters in parts of Sydney.^{61,62} A number of jurisdictions also ban smoking near building entrances—e.g. Washington State in the United States.⁶³ Some of these approaches will probably reduce secondhand smoke exposure in crowded settings, but more importantly, they may reduce the visibility of smoking to children and hence contribute to preventing role modelling of smoking to children and the denormalisation of smoking within society.

There has also been no proposal by the New Zealand Government for a law for smokefree private cars, and yet a number of jurisdictions have introduced such restrictions—where children are in the vehicle. These include South Australia, Arkansas, Louisiana, Puerto Rico,⁶⁴ and the city of Bangor (Maine, USA).⁶⁵

Table 1. Areas covered by (and areas not covered by) smokefree regulations in New Zealand

Area	Extent of coverage
Workplaces (including hospitality settings)**	Fairly comprehensive and effective according to various studies. ^{53,66–69} But still not complete for some e.g. hospitality workers who service outdoor smoking areas; workers who work in proximity to designated smoking rooms e.g. in rest homes; or prison staff who enter cells. Around 8% of survey respondents report smoking inside their workplace. ⁸
Schools*	Comprehensive for schools and early childhood centres.
Public transport*	Comprehensive (with some air quality data available ⁶⁶).
Grounds of healthcare facilities	Some hospital grounds.
Stadiums*, parks, beaches, bus stops etc.	Some stadiums, a small percentage of parks (but with these being “voluntary”), one university campus, but no beaches or bus stops.
Prisons*	Smokefree cells where “reasonably practical”. There are variable regional policies on connected spaces and other interior or exterior places. ⁷⁰
<i>Settings where no regulations exist or are rare</i>	
Private homes	There are no regulations, however mass media campaigns have encouraged smokefree homes.
Private cars	As above for homes.
Marae*	Only covered by government regulation when they are internal workplaces (including where there are regular volunteer workers), licensed premises, or education areas. Considerable regulation by marae organisations exists.
Outside the entrances of buildings	Virtually nil. (However, Victoria University does not permit outside smoking that is: “within three metres of an external entrance or air intake duct to an air handling system”).

*These settings can also be workplaces for some people;**Includes health care facilities (including mental health facilities).

Discussion

Main findings and interpretation—The major finding of this review is that there is still scope for further progress in all these four key tobacco control areas in New Zealand. There is a strong public health argument for increased investment to achieve such progress, given the major impact of tobacco use on premature mortality in this country,⁷¹ its adverse impact on Māori health, and its contribution to health inequalities.⁷² The argument is supported by the relatively poor results of government efforts to reduce the smoking prevalence, compared to countries such as Australia, Canada, and Sweden.

Although New Zealand has relatively high tobacco prices, it is a concern that New Zealand is not using tax policy to prevent smokers from shifting to thinner roll-your-own cigarettes,²⁴ rather than quitting. This problem could be partly addressed by adding a differentially higher tax for loose tobacco (so that it leads to a similar price for thin roll-your-own cigarettes and standard factory-made cigarettes).

Furthermore, there has been no real increase in levels of taxation for over 7 years. Given the proven effectiveness of tobacco tax⁷³ and its ethical justification,^{74,75} this situation should be a priority one for health agencies and advocates to address. Indeed, the Ministry of Health’s 5-year plan for tobacco control specifically identifies

tobacco taxes as “the most important single intervention to reduce smoking initiation”.⁷⁶

However, there are some gaps in the information required to inform best practice in the use of tobacco taxation policy for prevention of smoking among youth and reducing smoking in high prevalence communities such as Māori. For example, there is very little information on how tobacco price impacts on Māori smokers, and on low socioeconomic position smokers in New Zealand. There are few New Zealand studies that consider the impact of youth income and tobacco prices on youth smoking.^{77–80}

Other important areas for New Zealand to catch-up with OECD leaders include eliminating point-of-sale product displays, removing misleading descriptors, and using larger areas of packs for warning labels. In the mass media campaign area, there is scope for learning from countries that have used tobacco industry focused campaigns, and for a large increase in the resources allocated to sustained and targeted mass media campaigns using best practice methods. In particular, there is a need for a greater focus on campaigns that reach Māori and Pacific audiences (though this is to be the subject of a separate review).

By being the third country in the world to implement extensive smokefree workplaces (including restaurants and bars) there may be a sense among New Zealand policymakers that the smokefree environments issue is “solved”. However, the normality for a significant proportion of adults and children of being exposed to tobacco smoke,^{8,81} particularly in homes, means that measures are urgently needed to reduce children’s exposure to SHS and the role-modelling to children of smoking as an adult behaviour. This is crucial, given the evidence of the influence of smoking around children on smoking initiation,^{78,82–87} and the policy emphasis within the Government’s *Framework for Reducing Smoking Initiation in Aotearoa-New Zealand*.⁸⁸ Measures could include:

- Laws requiring smokefree cars where there are children inside;
- Laws for a wide range of smokefree outdoor settings that children frequent (e.g. parks and playgrounds used by children); and
- Better funded mass media campaigns aiming to make it socially unacceptable to smoke around children in the home and other settings.

The context behind the policy shortfalls—It is possible that New Zealand policymaker focus on introducing and operationalising the smokefree environments law (SEAA 2003) has diverted attention away from the need to have an effective overall strategy. Public health worker and policymaker attention has also been diverted to such key public health issues as the obesity epidemic and climate change. Another contributing factor to the slow progress in some areas may be the political situation, in that the dominant political party (Labour) in recent years has had to fight hard in Parliament for tobacco control advances (i.e. the SEAA 2003).

In particular, the minor parties in the government coalition since 2002 (United Future), and since 2005 (United Future, New Zealand First), do not appear to be natural allies in tobacco control progress. That is, 19 out of 21 MPs in these parties voted against the SEAA and one leader has a long history of opposition to tobacco control.⁸⁹

The Labour-led Government may not have felt it had sufficient political support from other parties in the MMP government, and sufficient public support to make additional bold moves on such issues as tobacco tax reform. But from a public health perspective, a government that better *informed* the public of the issues would probably be able to better engender increased public support for more rapid progress on tobacco control.

Limitations of this review—This review may not have identified some of the grey literature relating to the utilisation of these interventions in New Zealand (e.g. internal documents that organisations had not published on their websites). The comparisons with other OECD countries were also incomplete, as it is often years before the details of particular policy interventions are detailed in the Medline-indexed literature.

Others have also taken a slightly different approach to inter-country comparisons for tobacco control, using a scale with six interventions, adding to the ones we have used the use of large warning labels on packs and smoking cessation treatment (but with these two extra categories having a lower weighting).²⁰

We are also aware that this review has not fully considered issues around synergies between different interventions. Nevertheless, in the areas where such synergies could clearly have been exploited, these appeared to be poorly developed in New Zealand. For example, when the new smokefree law was introduced in 2004, Quitline mass media expenditure actually decreased!³⁸ Furthermore, there was no special mass media campaign for quitting at the time of the last substantive tobacco tax increase in 2000. Mass media campaigns for smokefree cars have also not been accompanied with legal requirements for such cars to be smokefree when children are present.

The issue of synergies, and the limitation of excluding other interventions where the evidence-base is not as well established, become particularly important when the question is posed of the causes of New Zealand poor performance in reducing smoking prevalence, when compared with similar jurisdictions in the last 15 years.

In addition to Canada and Sweden (see Figure 1), there has been particular progress in lowering prevalence rates in particular states and provinces within OECD countries. That is California, British Columbia, and New South Wales have reached daily smoking prevalence rates below 10%, 12%, and 14% respectively (albeit with minor variation in definitions of “adult”).⁹⁰ Thus California, with *less* use of marketing controls, an earlier use of smokefree laws, and *more* use of mass media, has a daily rate of less than half that of New Zealand. Thus the particular *mix* of interventions may be a major factor in tobacco control effectiveness (along with differing social and economic contexts).

Furthermore, one of the significant differences between Canada, USA, Australia, and New Zealand, is the much greater degree of litigation against tobacco companies and around smoking harm in the former group.⁴⁸ It is possible that such factors such as litigation,⁹¹ and the type and extent of coverage of tobacco issues in the media,^{92–94} are as significant as any of the four major interventions that we have focused on.

Implications for policy and research—The clear implication from this review is that much more progress in all the four intervention areas that we focus on is necessary, and that synergies between them should be maximised. One counter argument however, is that attention to these established areas distracts from achieving the key

structural changes that may deliver more rapid progress (as mentioned in the *Methods*).

Such structural approaches are possibly more rational than incremental change in specific intervention areas—but they may also be much harder to achieve politically. Therefore health advocates may wish to run a mixed strategy of getting high level structural change onto political agendas, and pushing for them when the political situation is favourable, but focusing on specific priority interventions at times when political will is weak and fragmented.

Conclusions

The major finding of this review is that there is still substantial scope in each of these four key tobacco control areas, for New Zealand to make progress to the level of OECD leaders. In particular, New Zealand needs to increase tobacco tax levels for loose tobacco (to equate to that on factory-made cigarettes at the per cigarette level). Further elimination of residual marketing (e.g. at point-of-sale displays) and the removal of misleading descriptors on tobacco packaging, are also needed. There is also potential for achieving greater synergies between the major interventions.

Competing interests: All of the authors have previously undertaken work for the Ministry of Health or non-governmental agencies working to improve tobacco control.

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