



NEW ZEALAND MEDICAL ASSOCIATION

# Tobacco Taxation in New Zealand

*A report for the Smokefree Coalition  
and ASH New Zealand*

Death and Taxes Seminar  
Future Directions for Tobacco Taxation



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## Executive Summary

### **Purpose:**

- To assess tobacco taxation as a policy tool for improving health of New Zealanders based on current and past tobacco taxation in New Zealand, with some reference to overseas studies.
- To make policy recommendations on tobacco taxation in New Zealand.

### **Section A: The effects in New Zealand of tobacco tax rises.**

- Current tobacco excise revenues amount to approximately \$1 billion per year, and have been at that level for some years. This is just under 2 percent of total tax revenues.
- Of the \$1.6 billion per year retail spending on tobacco products, approximately 70 percent is tax revenue, including GST as well as tobacco excises.
- Thus, the average amount spent by New Zealand's 750,000 smokers is approximately \$2,000 each per year and approximately \$1,400 is tax revenue.
- Rates of smoking prevalence, and of consumption of cigarettes per head, have dropped substantially in New Zealand in recent decades.
- The current prevalence rate is now about 23.5 percent, and annual consumption per adult (smoking and non-smoking) about 1,000 cigarettes (including both factory-made and roll-your-own).
- There have been similar trends in other countries. Cigarette prices in New Zealand, in a 2002 survey, appear to have been higher relative to income than in other English-speaking countries, with the exception of the United Kingdom.
- The fall in New Zealand's per capita consumption has been associated with very substantial increases over the last two decades in the price of cigarettes relative to consumer prices in general. These price increases have to a considerable extent been driven by tax increases. However, other factors than price such as changes in social attitudes to smoking, smokefree legislation, etc. – have also contributed to the falls in consumption and prevalence.
- The tobacco excise rate is currently adjusted on 1 December of each year for the change in general consumer prices over the past 12 months.
- There were substantial increases in tobacco excise rates in the mid- and late 1980s, and in 1991, 1998, and 2000. There has been no real increase, however, above the annual CPI adjustment, in the last seven years.
- Econometric analyses of the New Zealand time-series data suggest a price elasticity of demand for cigarettes of about  $-0.50$ ; and a price elasticity of smoking prevalence of about  $-0.20$ . These values are used subsequently in the

report (Section F) to calculate the impact of tax-caused price increases. They are consistent with results found in the overseas literature.

**Policy Recommendations based on Section A:**

- A1. Substantial 'health gains' can be made from the reduction in smoking prevalence which are the expected result of increases in tobacco taxation. High tobacco tax rates are a valuable tool for deterring smoking uptake and promoting smoking cessation.
- A2. That tobacco taxes should be explicitly presented and justified as a public health measure, and levied in such a way as to maximise the public health benefit.
- A3. We propose that there should be substantial tax rises timetabled for at least every two or three years but preferable annually from 2008, contributing to an expected halving of smoking prevalence in the next decade.
- A4. That such increases should be either of the order of ten percent annually or of the order of twenty to thirty percent every two to three years, with a provisional target of doubling the real cost of tobacco (in terms of affordability) within ten years.
- A5. Such increases are similar in size to those implemented in the 1980s and 1990s, but not seen since the year 2000.
- A6. Increases in tax rates are not the only instrument for tobacco control, and taxation should be used in a coordinated manner with other aids to smoking cessation, with particular targeting of high smoking prevalence groups such as Māori and Pacific peoples. The 'dedicated' tax fund proposed in the associated Thomson report would assist such coordination.
- A7. That the proposed increases be in addition to the present annual indexation of tobacco tax rates.
- A8. That this indexation should in future, however, be based on annual increases in average incomes, Average Weekly Earnings (AWE) being the preferred benchmark, rather than on annual increases in consumer prices, as at present (it is anticipated this would increase prices by about an annual 1 percent extra above inflation).
- A9. That changes in the relativity of tax rates on factory-made and roll-your-own cigarettes should be urgently considered, to ensure that smokers are not continuing to smoke rather than quitting, because of the availability of cheaper hand-rolled cigarettes.
- A10. The annual indexation date of 1 December is not the most effective, and should be switched to another date such as 1 March 2008.

## **Section B: The Costs of Smoking in New Zealand.**

- Updated estimates of smoking costs have been calculated for New Zealand, drawing on earlier work by Easton for New Zealand, and the Collins and Lapsley work for Australia.
- The tangible costs of smoking to New Zealand in 2005 were of the order of NZ\$1.7 billion, or about 1.1 percent of GDP. Major components are lost production due to premature mortality, lost production due to smoking-caused morbidity, and smoking-caused health-care costs.
- The intangible costs were of the order of 62,800 life-years lost to smoking-induced premature mortality, and 19,000 Quality-adjusted Life-years lost to smoking caused morbidity.

## **Section C: Economic and social costs and benefits from a tobacco tax rise**

- It cannot be simply assumed from Section B that a tax-caused reduction of one-tenth in smoking prevalence would quite quickly also reduce the costs stated there by one-tenth. It would take decades for the full consequences to be apparent.
- Modelling work overseas does indicate, however, the likely benefits from a tobacco tax rise.
- One recent Californian study, assuming a 20 percent tax increase, gave results which, scaled down to a NZ population equivalent result, in an estimated QALY gain of 942 QALYs in the first year, and 5,850 QALYs per year by year 75.
- Applying even a relatively conservative value per QALY of NZ\$50,000 to these numbers gives 'monetary' gains of NZ\$47 million in the first year, and NZ\$293 million per year, by year 75. In addition there would be a gradual reduction in the tangible costs estimated in Section B.

## **Sections D and E: A Dedicated Tobacco Tax Fund**

This section is a summary of the results from a separate report by Thomson, G on a dedicated tobacco tax fund.

- Tobacco control measures in New Zealand are currently under-funded.
- Dedication of an appropriate share of tobacco tax revenue to tobacco control would address this problem.
- It would also help address the ethical and equity issues of using a lethal, addictive substance to raise general government revenue.
- It is evident from overseas studies that such dedication of a proportion of tax revenues, to be used to assist cessation and deter initiation of smoking, increases popular support for tobacco tax increases, including support among smokers.
- The recommended initial amount of dedicated tax revenue is \$60 million, (compared to current spending on these activities of about \$40 million), targeted to increase to at least \$120 million within five years.
- This is in the context of proposed overall Tobacco Strategy targets of reducing smoking prevalence (including that by Māori and Pacific) to less than one percent within 20 years, and less than 10 percent for all groups within ten years.
- The dedicated funds should be subject to evaluation of effectiveness of their use, should be used to reduce tobacco-related inequalities, and should involve the devolution of power and resources to Māori and other disadvantaged groups.

### **Conclusions**

- Tobacco control measures in New Zealand are currently under-funded, both on a comparative cost-effectiveness basis, and in the light of the government's stated health priorities. There is evidence that policy makers find it difficult to allocate funding to preventive services and programmes, particularly where the benefits are not clearly tangible and are in the long term, and particularly in the face of competing pressures from immediate health care deficiencies and resource shortfalls.
- One option for helping ensure that government's stated priority on tobacco control is matched by adequate funding is to have part or all of tobacco tax revenue dedicated to tobacco control spending.
- There are a number of precedents for such dedicated tax revenue in New Zealand and elsewhere. Research indicates that there is far greater support for dedicating tobacco tax revenue when the revenue is spent on tobacco control efforts.
- Dedicating tobacco tax revenue for tobacco control helps to address the ethical and equity issues of using a lethal, addictive substance to raise general government revenue.

- If tobacco tax revenue is dedicated for tobacco control, consideration needs to be given to:
  1. The amount of the funding
  2. Annual adjustments in the amount of funding, and how these adjustments might be linked to changes in overall tobacco tax revenues.
  3. The structure and degree of autonomy of the agency administering the funding
  4. Ways of ensuring uses of the fund which meet the criteria commonly applied to health-care funding decisions, including cost-effectiveness and improving the equity of health outcomes.

**Policy Recommendations based on Sections D & E:**

- D.1 That an increasing portion of the tobacco tax revenue be dedicated to tobacco control activities encouraging and assisting smokers to cease smoking and deterring non-smokers from starting smoking.
- D.2 That the initial amount of dedicated tax revenue should be at least \$60 million, (compared to current spending on these activities of approximately \$40 million), and should be targeted initially to increase to at least \$120 million within five years.
- D.3 That the objective of this dedication of revenue should be to reduce the smoking prevalence (including that by Māori and Pacific) to less than one per cent within 20 years, and less than 10% for all groups within ten years.
- D.4 That the administration of the dedicated revenue be structured to ensure that the revenue is:
  - Not diverted or eroded.
  - Used effectively, with continued evaluation of results against objectives.
  - Sufficiently and effectively devolved to regional and local tobacco control efforts.
  - Used so that tobacco-related inequalities are reduced, and so that power and resources are devolved to Māori and other disadvantaged groups.

## **Section F: Equity and the Treaty of Waitangi**

- The principal problem with tobacco taxation is that it burdens those who do not succeed in quitting, more particularly on low-income households and individuals, quite a high proportion of whom are Māori or Pacific. Māori smoking prevalence rates are about double those for the general population.
- At the same time the ‘health gains’ and ‘financial gains’ for those who are spurred to ‘quit’ by tax increases are substantial. This is apparent, for example, in the gains tabulated in Table F.11. Thus the average person quitting will save of the order of \$2,000 and more per year, and receive health gains on average of 2 QALYs, probably more.
- An effective tobacco-control policy should therefore continue to have as one of its main components the use of high and increasing tobacco tax rates.
- Tobacco taxation policies should be integrated where possible with overall government policies to reduce social and economic inequalities and to ensure the fulfillment of Treaty of Waitangi obligations.
- The regressive impact of tobacco tax increases on low-income households and on Māori and Pacific peoples should be ameliorated by allocation of a substantial proportion of tobacco control resources to assist smoking cessation by these populations.
- Tobacco control resources targeted at Māori and Pacific peoples should be in general used for intervention programmes designed and administered by Māori and Pacific peoples.

### **Conclusions**

To quote an earlier report (Thomson et al. 2000. Page 39

“Tobacco taxes are a broad impact intervention. They benefit smokers who quit, reduce the consumption of tobacco and make quitting attempts move up the personal agenda of smokers who continue to smoke. They benefit non-smokers exposed to second-hand smoke, and young people who are less likely to smoke.”

All these benefits still hold. Tobacco tax increases burden those ‘tobacco-purchasing’ households who do not succeed in ‘quitting’, more particularly on low-income households, quite a high proportion of whose members are Māori. Against this, those households, and individuals, who do ‘quit’ in response to a tobacco tax increase make useful financial savings in addition to the ‘health gains’ received by the ‘quitting’ individuals.

An effective tobacco-control policy should continue to have as one of its main components the use of high and increasing tobacco tax rates. The ethical and equity impacts of such a policy need to be addressed. We believe, as discussed in the accompanying report that this can be done by dedicating a substantial proportion of tobacco tax revenues to assisting smokers to quit and to preventing others from taking up smoking, particularly the young. These measures should put considerable emphasis on assisting those populations with a high prevalence of smoking, namely those on lower incomes, and Māori and Pacific populations.

**Policy Recommendations based on Sections F:**

- F1. That the use of high and increasing rates of tobacco taxation remain a core component of tobacco control policies.
- F2. That tobacco taxation policy is integrated where possible with overall government policies to reduce social and economic inequalities and to ensure the fulfilment of Treaty of Waitangi obligations.
- F3. That the regressive impact of tobacco tax increases on low-income households and on Māori and Pacific peoples be ameliorated by allocation of a substantial proportion of tobacco control resources to assist smoking cessation by these populations.
- F4. That tobacco control resources targeted at Māori and Pacific peoples be in general used for intervention programmes designed and administered by Māori and Pacific peoples.

**Table F.11 Gains and Losses on average for Individuals.**

**Tax-caused price increase of 20%.**

Using 2003/04 data on numbers smoking  
Assumed Prevalence Elasticity of -0.20

Category	Number affected	Health Gains/ Losses	Financial Gains/ Losses per year. (in post-tax prices)
<u>Persons</u> continuing or starting smoking.	725,000	Unchanged	Loss \$280 /person.
<u>Persons</u> stopping or not starting smoking.	30,200	2 QALYs per person quitting permanently.	Gain \$2,200 / year (approx. av.)
<u>Māori</u> continuing or starting smoking.	187,000	Unchanged	Loss \$280 /person
<u>Māori</u> stopping or not starting smoking.	7,800	2 QALYs per person quitting permanently.	Gain \$2,200 / year (approx. av.)
<b>Aggregate Financial:</b>			
	All: Losses	\$203.0 mn	Gains \$66.4 mn
	Māori Losses	\$ 52.4 mn	Gains \$17.2 mn
Plus health gain in \$ terms for quitters, if 1 QALY valued at \$50,000			
	All: 60,400 QALYs		\$3,020 mn.
	Māori: 15,600 QALYs		\$ 780 mn.

Sources: Previous tables.

Individual averages based on total sales for 2004 of \$1,525 mn (Laugesen, 2005), for 755,000 smokers in 2003/04. That is, \$2,020 per smoker, in 2003/04 prices.

Māori average consumption per smoker can reasonably be assumed to approximately equal total population average consumption per smoker, from the self-reported data ( Light/Moderate/Heavy) in *Tobacco Trends 2006*, Table 6, page 15.