



What's new in tobacco tax research for New Zealand and is it time for a tax hike now?

Raising the price of cigarettes through increases in taxation and duties is the tobacco control intervention with the strongest evidence of effectiveness at reducing smoking prevalence. Despite this evidence, the rate of tobacco taxation in New Zealand has not been raised beyond the rate of Consumer Price Index inflation since 2000. To inform evidence-based decision-making, we aimed to briefly review new work on tobacco tax in New Zealand and to put this into context with selected recent international developments.

We updated a previous review that covered the use and effects of tobacco tax in New Zealand up to June 2007¹ with further Medline and Google Scholar searches to cover the period up to the end of February 2009. Findings for all data-based articles and review articles were put in context with relevant international literature and recent developments overseas.

Five studies with new data and one review article that were published since mid-2007 were identified. The findings of these are summarised below:

- A major report examined tobacco taxation in New Zealand and undertook new analyses.² It reported that “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 .” After a price increase of 20% it was estimated that a “non-quitter” would on average pay an extra \$280 a year.

But in contrast the “average person quitting will save of the order of \$2200 per year, and receive health gains on average of 2 QALYs, probably more.” The report recommended “substantial [tobacco] tax rises ... at least every two or three years, but preferably annually ... with a provisional target of doubling the real cost of tobacco (in terms of affordability) within ten years”.

This report also highlighted the *increase* in affordability since 2000, due to incomes rising faster than the Consumer Price Index, and recommended that tobacco price indexation “should in future ... be based on annual increases in average incomes, Average Weekly Earnings (AWE) being the preferred benchmark”. Finally the report showed how the proportion of tobacco consumed as roll-your-own tobacco had increased substantially as the price of tobacco had risen over time.

- A companion report (to the above), reviewed the international experience and found that “there are at least 10 countries and six US states with a dedicated tobacco tax”.³ It recommended that for New Zealand “an increasing portion of the tobacco tax revenue be dedicated to tobacco control activities encouraging and assisting smokers to cease smoking and deterring nonsmokers from starting smoking”.

- A national survey found that a majority of New Zealand smokers (59%) supported an increase in tobacco tax if all the extra revenue “was used to promote healthy lifestyles, including helping smokers wanting to quit”.⁴
- One study considered cigarette affordability around the world and ranked New Zealand fifth out high-income countries in terms of relatively unaffordable tobacco (using number of minutes worked to purchase a pack of cigarettes).⁵
- Another affordability study ranked Auckland as having the 18th least affordable cigarettes (using average income) out of 60 cities (or 8th out of cities in 29 OECD countries).⁶
- A study found shorter cigarette butt lengths in relatively more deprived areas of Wellington (compared to less deprived areas), and considered the implications for how price/tax policy might impact on smoking intensity among more deprived populations.⁷

This new work adds to the context around tobacco tax issues. The findings of the major report² is in line with previous arguments that increasing tobacco tax (and dedicating tax revenue to improved tobacco control) is highly desirable from a public health perspective. Furthermore, increased tobacco tax (if dedicated) is what a majority of New Zealand smokers themselves appear to want, which helps makes this approach politically feasible. The updated price elasticity information also indicates that raising tobacco tax will probably increase government revenue—which can then be used to fund tobacco control and possibly other shortfall areas in the New Zealand health sector.

Increases in tobacco tax should be presented as a public health measure to help prevent smoking uptake by children and encourage existing smokers to quit. The increase should be implemented in combination with other measures to maximise its impact such as smoking cessation campaigns and promotion of smoking cessation services and the Quitline.

Smoking in New Zealand is increasingly concentrated among socio-economically disadvantaged communities and is much commoner among Māori. Smokers who don't quit or cut down after a tobacco tax increase may suffer increased financial stress, but this is likely to cause much less harm to their health than continuing to smoke.⁸ This concern, and the possibility that some poorer smokers may respond to higher tobacco prices by smoking more intensively (e.g. closer to the butt), can be partly addressed by further targeting of the provision and marketing of smoking cessation services and quit-smoking campaigns to ensure that low-income smokers have comprehensive and affordable smoking cessation support available to them. Fortunately, New Zealand has successful examples of these approaches.^{9 10}

The international evidence increasingly favours tobacco tax being a pro-equity strategy. For example, a systematic review reports evidence for greater price sensitivity among low-income adults and hence the potential for such tax to contribute to reducing health inequalities.¹¹ Subsequent published work also indicates that higher tobacco prices are “egalitarian” in their impact in the US¹² and reduce social disparities in Australia.¹³ A study of 18 European countries also found that “high and low educated smokers benefit about equally from the nationwide tobacco control

policies” of which tobacco tax was the most effective component in inducing quitting.¹⁴

Other parts of the international context are the high levels of support for dedicated tobacco taxes in various US states (e.g. as high as 79% in Florida¹⁵). The new US president also recently put up Federal tobacco tax with the funds to go towards increasing health insurance coverage for children.¹⁶

Given that an alternative to quitting in response to tax rises is for smokers to shift to making their own thinner roll-your-own cigarettes, measures to prevent this are desirable. That is, a differentially higher tax on roll-your-own tobacco might be appropriate as has been recommended elsewhere.^{2 17 18}

In conclusion, the New Zealand evidence and recommendations suggests that the government should act to raise tobacco tax beyond inflation and to dedicate some of the revenue to funding smoking cessation and health services. This would be good for public health (for smokers and those non-smokers exposed to secondhand smoke), for young people at risk of becoming smokers, and for government funding of those health services that obtain the extra funds.

Competing interests: All three authors have previously undertaken work for government and non-government agencies on tobacco tax issues.

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