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SUBMISSION TO TAX WORKING GROUP

From ASPIRE 2025, ASH New Zealand, Hāpai te Hauora and the Cancer Society of New Zealand

April 2018, Wellington, New Zealand

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This submission focuses on tobacco taxation

SUMMARY

Tobacco is a unique product for taxation purposes. It is highly addictive, thus although most smokers want to quit smoking, they have substantial difficulty doing so. Reducing tobacco affordability through taxation is one of the most proven and effective uses of fiscal policy for health purposes.

Taxation should be an important component of a comprehensive strategy to achieve New Zealand's Smokefree 2025 goal. Tobacco taxation reduces smoking uptake, prompts quitting, and hence reduces smoking prevalence. The tobacco industry fears fully effective taxation policies.[1 2] While there has been an policy of 10% annual tobacco tax increases since 2010, tobacco industry activity erodes the effectiveness of the policy. This review is an opportunity for advice to government on a fairer approach.

We suggest, as a foundation policy principle for tobacco taxation policy, that it should be explicitly driven by health needs, with the goal of the policy being to maximise positive health impacts rather than raising revenue.[3]

Many smokers support tobacco tax increases, particularly if the additional income is used to help create a supportive context for quitting. At a population level, tobacco taxation provides much larger health gains for Māori compared to non-Māori. These benefits would be even greater if some tobacco tax revenue was dedicated to supporting quitting (for example, by funding high impact media campaigns).

Currently, the tobacco industry manipulates prices and brands to reduce the impact of tobacco tax rises in New Zealand whilst maximising their profits; for example, by minimising the impact of tobacco excise tax increases on budget brands and raising prices for premium brands by more than the tobacco tax-related increases. Since 2014 there has been a rapid increase in the the market share of the cheapest 'budget' cigarette brands. A maximum price before tax and a government mandated retail price would: (i) prevent tobacco marketing based on prices; (ii) enable government to better address externalities imposed on society by the tobacco industry; and (iii) enable government to limit industry profits.

There is also evidence that loose tobacco provides a lower priced means to continue smoking, with many smokers (particularly Māori and young people) rolling thinner roll-your-own (RYO) cigarettes to minimise cost. A further differential tax increase for RYO tobacco (the last such increase was in 2010) would help remove this price incentive.

We recommend

1

Government mandated tobacco retail

prices: The use of mandated retail prices and maximum prices before tax provide options for Government to reduce smoking prevalence, remove price marketing and increase revenue.[4-7]

2

Dedicated tax:

Until 2025, the dedication of at least \$100m (currently about 5%) of tobacco tax revenue annually to creating a stronger environment that minimises smoking uptake and better supports smokers to quit.

3

Tobacco tax rises:

Continuing to use tobacco tax increases to reduce smoking prevalence, as long as a proportion of tobacco tax revenue is dedicated for tobacco control, and smokefree policy changes make it easier for smokers to quit.

4

Differential increase in loose tobacco

tax: Ensure that RYO cigarettes are not a cheaper alternative to factory made cigarettes and do not encourage smokers to switch between products as an alternative to quitting. This can be done by implementing a differentially greater increase in loose tobacco (RYO) taxation, monitoring the impact and repeating as necessary.

BACKGROUND

Tobacco is a unique product for taxation purposes. [8] 'The fundamental social issue with tobacco is the product itself'[9] which has a need for a high degree of regulatory and policy measures.[10] It is highly addictive, thus although most smokers want to quit smoking,[11-15] they have substantial difficulty doing so.[16] In New Zealand, tobacco use will continue to require considerable policy attention, due to the extent of harm from tobacco use and the resulting health inequalities.[17-18] Since 2010 there has been an policy of 10% annual tobacco tax increases. However, tobacco industry activity erodes the effectiveness of the policy,[19-22] and the Tax Working Group review is an opportunity for advice to government on a fairer approach.

Effectiveness and cost-effectiveness

Tobacco tax increases are one of the most extensively researched public health interventions. There is overwhelming evidence that price and price increases reduce smoking prevalence and uptake, especially among young people, those who have less education, and those experiencing greater deprivation.[23] [24] p.150 This intervention will improve population health and reduce health inequalities. For example, in Europe, recent research indicates that higher tobacco prices are associated with reduced infant mortality.[25]

The tobacco industry has always been concerned that in the long term tobacco taxation will reduce its markets. [1-2] A recent review of industry strategies in relation to tax found 'tobacco tax increases are the most effective and inexpensive way of reducing tobacco smoking prevalence, consumption, initiation and inequalities in smoking.'[19]

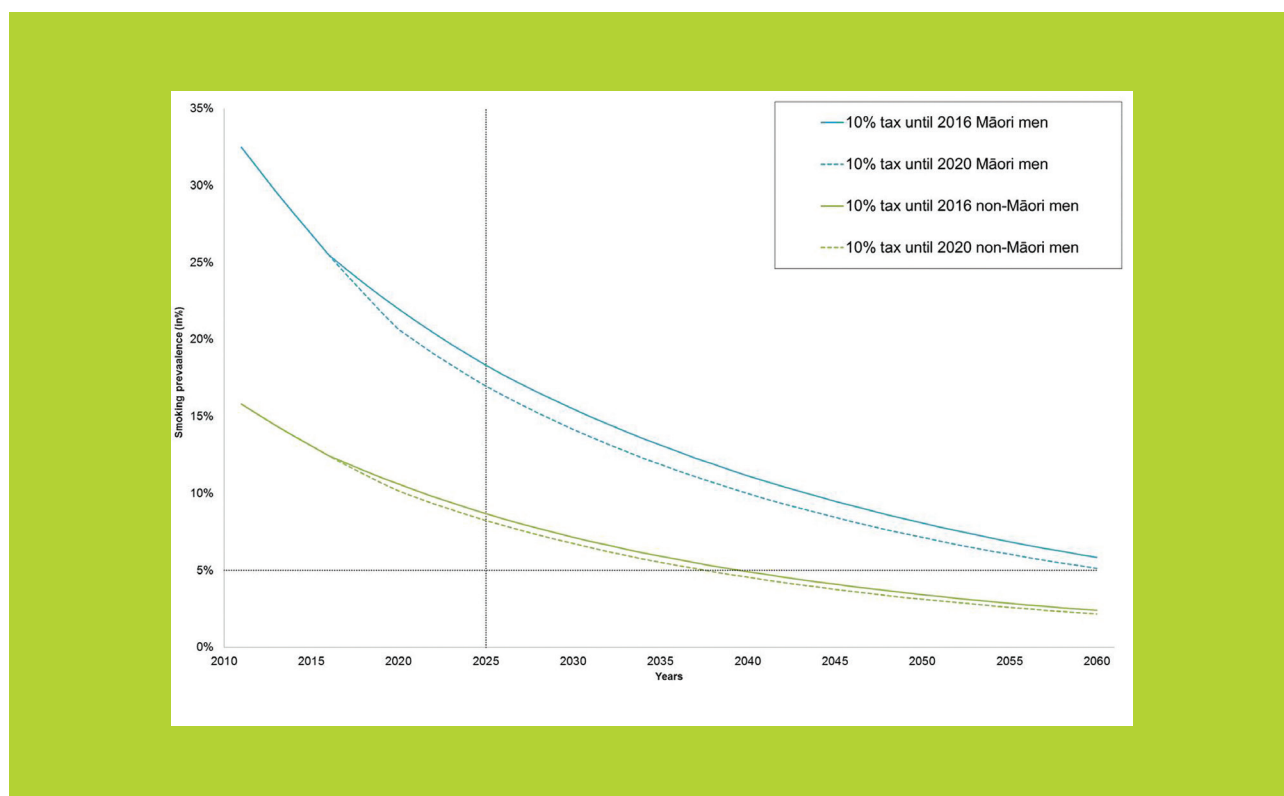
Recent New Zealand research found that historically 'increasing price was strongly associated with reducing regular smoking prevalence in NZ adolescents, which remained significant even when adjusting for demographic factors and established individual predictors.'[26] New Zealand modelling research has found increased tobacco prices produce further health gains, reduce health inequalities and generate health system cost-savings.[27-28] Research in Auckland 'socioeconomically deprived neighbourhoods ... with large proportions of Māori and Pacific Island people' indicated that tax-driven price increases increased quit attempts.[22] Tobacco taxation in NZ has been one of the most cost-effective health interventions, with major health gain and cost savings within and outside the health sector.[27]

Tobacco taxation also may have a role in encouraging some smokers who are unable to quit using inhaled nicotine to switch to e-cigarettes. These are likely to be less dangerous than tobacco smoking, although not without dangers.[29-31] A complete switch to e-cigarettes could create enable smokers to avoid the adverse financial impacts of tax increases as well as to reduce some of their health risks. Government tax policy could help create an incentive to switch and hence further reduce tobacco smoking prevalence.

Taxation as part of the wider policy scene

Despite clear evidence of tobacco taxation's effectiveness, tobacco taxation alone is not sufficient to meet the Government's 2025 tobacco prevalence goal of 5%. See Figure 1:

Figure 1: Projected daily smoking prevalence trends for NZ men[32]*



* Assuming current tobacco policies and prevalence trends

Tobacco taxation therefore needs to be seen as part of a comprehensive set of tobacco control policies across many sectors. A synergistic approach is required to get the maximum positive effect from tobacco tax increases. [33]p.16 Furthermore, there is an ethical imperative to combine taxation with other policies that promote quitting, to avoid increasing the adverse impacts on smokers who do not give up smoking after tobacco

tax increases.[34] Such policies include improved mass media campaigns,[35-38] enriched Quitline services integrated with policy changes,[39 40] policy and other work on tobacco product additive restrictions or reductions in nicotine content,[41-43] and enhanced policies (eg, outdoor smokefree environments) that assist smokers to quit.

Smoking is not an individual informed choice

Tobacco as a widely available product is unique because of the severity of nicotine addiction, the extent of harm from smoking and the lack of informed choice asserted by new users. The fact that new users cannot realistically understand addiction, ahead of becoming addicted, creates a strong ethical justification for implementing measures like tobacco price increases. This is because such increases have been shown to reduce smoking uptake.

The severe nature of nicotine addiction means smoking is not a choice and many smokers find quitting difficult. [16 44] Rather than having net enjoyment from smoking, nearly all smokers in countries such as New Zealand are discontented because of their addiction and its costs. The vast majority want to quit smoking and regret having started.[11-13] Quitting provides smokers with major net welfare gains.[11]

Smoking uptake since the 1950s is a result of government failures, including insufficient regulation, and insufficiently effectively communicated information about nicotine addiction and the harms caused by tobacco use.[14 15] Many users start as children or youth, before they are at an age when they can make a more informed choice. Almost all other smokers start as young adults,[45] when true informed choice is very rare because few understand the addictive nature of smoking or fully comprehend or apply to themselves the consequences of starting smoking.[46 47]

The ethical concerns

The current arrangements for tobacco taxation raise many problematic ethical issues. Currently Government applies specific taxes to an addictive and extremely harmful product, which most users started without making a true informed choice. The tax revenue raised is used for general purposes and is not specifically allocated to help smokers to quit or reduce the numbers starting to smoke. Current tax policy does not prevent price marketing of tobacco. In short, tobacco tax policy in New Zealand appears primarily designed to gather revenue, rather than to help smokers quit,[3] (even though in the last decade the political rhetoric has particularly focused on health benefits).

For those smokers unable to quit, or sufficiently cut down, tobacco tax increases can have adverse financial effects, including increased household poverty. New Zealand qualitative research has indicated that many of those unable to quit 'felt victimised by a punitive policy system that coerced change without supporting it.'[48] Other New Zealand research has found that tobacco spending can have a major effect on households with children. Enabling low income households with smokers and children to be smoker-free would significantly increase the welfare of those households.[49] The need for increased justice in the use of tobacco tax revenue is shown by New Zealand smoker's support for tobacco tax increases if the revenue is used to help smokers quit.[50 51]

Ethical solutions

Government can reduce the ethical tensions by reducing the risk of new smokers starting, creating an environment that supports smokers to quit, and by providing more comprehensive social support for poor households.[34 49] Government has a duty of reciprocity to smokers, to use sufficient resources to ensure that they and their children will be tobacco-free. [52] A dedicated tobacco tax is discussed below.

We suggest that the two commonly used arguments for tobacco taxation increases are not ethically defensible, i.e.,

- That smokers should pay to cover the negative externalities of tobacco use, such as greater health care costs and harm to others from secondhand smoke. We argue that the tobacco industry is responsible for the externalities,[53 54] and that the government failures in tobacco policy erode arguments for smoker responsibility.[55 56]
- To use tobacco to raise general revenue.

Instead, there are two ethically defensible rationales for tobacco taxation:

- A.** To reduce smoking prevalence (increasing quitting and reducing smoking uptake) and hence reduce avoidable ill-health and premature deaths arising from use of a highly addictive and hazardous substance;
- B.** To transfer revenue from the tobacco industry to public funds, so as to provide revenue that can be used to help reduce smoking prevalence. A system of government mandated retail price and maximum price before tax could implement this approach (see recommendations).

The need for a dedicated tobacco tax in New Zealand

Using tobacco tax revenue to reduce the problem of tobacco use would ease the ethical concerns of tobacco taxation,[34] increase support for tobacco taxes amongst New Zealand smokers, [50 51] and help reduce the chronic underfunding of the most cost-effective New Zealand Government tobacco control activity.[57 58] In 2016-17 'over 90% [of both Māori and non-Māori smokers surveyed] agreed that Government should use the tax from tobacco to fund programmes that help smokers to quit or reduce young people starting to smoke'.[50] The Ministry of Health calculated about \$62 million (m) was spent on tobacco control in 2014-15, compared to \$1.5 billion (b) in tobacco tax revenue,[59] (\$1.8b in 2016).[60] However, much of this spending was on relatively cost-ineffective individual treatment (including pharmaceuticals at \$15m) and less than \$4m was spent on highly cost-effective mass media campaigns.[38 59 61 62]

The recent major US National Cancer Institute (NCI) review of tobacco economics found that:

'Dedicating part of tobacco tax revenues for comprehensive tobacco control or health promotion programs (i.e., earmarking) increases the public health impact of higher tobacco taxes.' [24]p.189

Dedicated taxes would help:

1. Ensure continuity of funding for tobacco control (the success of Californian dedicated tax indicates this) [63] Other examples of successful dedicated tobacco taxes include in Guam,[64] and elsewhere.[65 66]
2. Provide visible and tangible evidence of government commitment to reduction of social harm
3. Identify clearly, for those who pay tobacco tax, their eligibility for services in return, ie support in improving their health
4. Provide reassurance that the purpose of tobacco tax is primarily for health improvement and achieving a smokefree society
5. Signal, in symbolic but important ways, recognition of the reciprocal duties and relationships inherent in any tax system between state and citizens.

Tobacco taxes and equity

A 2014 review found 'strong evidence that increases in tobacco price have a pro-equity effect on socioeconomic disparities in smoking'.[67] New Zealand research estimates that taxation increases provide more than four times the health gain for Māori compared to non-Māori (because of the greater % of Māori who are smokers), and such increases are therefore a major way to reduce health inequalities.[27] Despite this evidence of strong potential pro-equity impacts, research is needed to assess whether the current excise tax schedule continues to deliver pro-equity outcomes.

It is difficult to separate out the effects of tobacco tax rises from other policies that affect smoking and equity. However, over a period when regular above inflation tobacco tax increases occurred, smoking prevalence among the most deprived New Zealand quintile decreased from 30.4% to 26.6% during 2012/13 to 2016/17 (an absolute drop of 3.8%) compared to a drop from 10.8% to 8.2% (an absolute drop of 2.6%) for the least deprived quintile. As a result the absolute difference in prevalence decreased from 19.6% to 18.4%, but the relative difference increased from 2.8 to 3.2.[68 69]. The continuing high prevalence among disadvantaged smokers suggest that continued tobacco tax increases, combined with a comprehensive range of additional measures that impact particularly on more deprived smokers, are needed if the Smokefree 2025 goal is to be achieved among this group.

Net community benefit

Does tobacco tax harm smokers and their families? Across communities, tobacco tax provides more benefit in improved health and longer life when compared to the adverse health effects of financial loss. While some continuing smokers may pay more for tobacco, at a population level a New Zealand analysis found:

'The estimated harm to life expectancy from tobacco taxation (via financial hardship) is orders of magnitude smaller than the harm from smoking.... Policy makers should be reassured that tobacco taxation is likely to be achieving far more benefit than harm in the general population and in socioeconomically deprived populations.' [70]

There are real potential adverse financial impacts for continuing smokers, and hence the need for supportive environments that support smokers to quit. However, there are sustained financial benefits among people who quit and among young people who never start.

If e-cigarettes are widely available and less expensive than tobacco, these could offer a realistic substitute for some smokers who cannot quit. A complete switch to e-cigarettes (rather than co-use with tobacco) could create enable smokers to avoid the adverse financial impacts of tax increases as well as to reduce some of their health risks.[29-31]

The costs of tobacco use for individuals, communities and economies

The major US NCI report on tobacco economics found that the 'economic costs of tobacco use are substantial and include significant health care costs ... and the lost productivity that results from tobacco-attributable morbidity and mortality.' ... 'Tobacco use in poor households exacerbates poverty by increasing health care costs, reducing incomes, and decreasing productivity, as well as diverting limited family resources

from basic needs.' The costs include: 'illness, disability, premature death, and forgone consumption and investment. ...Substantial economic resources are lost to other uses because of tobacco-related illnesses, premature disability, and death. ... Evidence from household expenditure surveys ... shows that tobacco use displaces household expenditures on education and medical care, which are important investments to improve economic well-being. ... In high-income countries, lifetime health care costs are greater for smokers than for nonsmokers, even after accounting for the shorter lives of smokers.' [24]

Industry efforts to reduce the effect of NZ tobacco tax rises

Tobacco tax increases do not necessarily translate into effective tobacco price changes, as the industry uses differential price increases for budget and premium brands in response to tobacco tax increases They use price as part of the marketing of their products.

In 2016, the retail price of 20 cigarettes ranged from \$18.90 to \$29.90.[60] The tobacco industry (including in New Zealand) uses a variety of manipulative tactics to reduce the impact of tobacco tax increases, including smoothing the retail price changes and minimising price increases for budget brands. This increases the use of budget brands, as smokers switch to save costs and reduce the impacts of tax increases.[19-22] During 2014-2017, the market share of the new 'ultra-budget' brands Club, Choice and West increased from 4% to 24%.[71 72] Currently in New Zealand, the retail price of particular tobacco products depends on tobacco industry decisions.

RYO tobacco provides another means for smokers to continue to get nicotine for a lower cost than when using factory made (FM) cigarettes. RYO cigarettes can be made with less than half the weight of the tobacco in a FM cigarette. The reported use of RYO tobacco in New Zealand increased during 2007/8 to 2016/17, with 61% of smokers using either RYO exclusively or both RYO and FM, an increase from 52% in 2007/08.[73] RYO use is disproportionately concentrated among Māori, lower income and young smokers.[22 74-76] Research indicates that RYO use has positive attributes for young New Zealand smokers, apart from price advantages.[77]

Such marketing by price can be addressed by a fixed or minimum retail price per cigarette or tobacco weight. [6 7] A periodically fixed or mandated retail price has an advantage over a minimum price because it removes any ability to market by price. A mandated retail price and a differential increase in RYO tobacco could prevent the industry minimising the impact of tobacco tax increases on smoking prevalence. Combined with a maximum tobacco price before tax, the intervention could help Government deal with the negative externalities that the tobacco industry imposes on Government, society and the environment. By reducing the maximum price before tax, in conjunction with an mandated retail price, Government could increase the tax revenue available to address these negative externalities. This regulated price system would also enable government to limit industry profits.[6 7]

Risks from tobacco price increases

While the tobacco industry and its allies have suggested a substantial illegal tobacco market with increased tobacco prices, existing peer reviewed research in New Zealand suggests that this illegal market is very small,[78] and is likely to remain so even with higher prices, because of the difficulties in smuggling or illegal production.[79]

There is currently considerable media coverage of robberies of dairies and convenience stores, where tobacco and cigarettes are among the items stolen. These crimes have prompted calls to end tobacco tax increases. We lack robust data on both the trends in these robberies and the degree to which these can be attributed to tobacco taxation. However, there is at least a strong perception that these thefts have become more problematic because of tobacco tax increases.

Currently, tobacco retailing is an unregistered or licensed activity, with no requirements on the secure storage of products, reporting and recording of thefts, or staff training. The widespread sale of an addictive, dangerous product with few regulations stands in stark contrast to the supply of addictive pharmaceuticals via pharmacies, and creates risks when tobacco prices increase.

Rather than stop future tobacco taxation increases, and abandon a highly effective measure to reduce smoking

prevalence, we suggest the sale of tobacco at a small number of sites that have legislated requirements for security and training. This approach would have many health and crime prevention benefits.[80]pp.11-17 In particular:

- Limiting tobacco sales to fewer outlets which have better security would reduce the opportunities for crime;[81]
- Reducing the number of outlets is likely to reduce smoking uptake, and prompt and support smokers to quit.[27 82-84]

Taxation and the environmental costs from smoking

Other tobacco product related taxes could be used to deal with the environmental externalities from the tobacco industry. These externalities include post-smoker product waste, landfill costs, hazardous waste, and damage to soil, water and marine environments.[85] The consequent policies could include a tax on cellulose butts, which many smokers mistakenly believe lower the health risks of smoking,[86] and that have extensive negative environmental effects.[54 87 88]

Complementary effects from increased alcohol taxation, or a minimum alcohol price

There is some evidence that increased effective alcohol prices will reduce tobacco use,[89-92] as these two products are typically complementary. Smokers are also much more likely to be heavy drinkers than non-smokers, and young people often begin smoking whilst out drinking with friends. Health Promotion Agency researchers have found that 'strong links between smoking and drinking... may act as barriers to successful cessation among young late-onset smokers.'[93] Because alcohol use adversely affects reasoning and decision-making,[94] even small amounts can increase smoking relapse.[95] We encourage the Tax Working Group to explore a combined tobacco and alcohol taxation policy to reduce health harm from both tobacco and alcohol.

THE RECOMMENDED POLICIES

Recommendation 1:

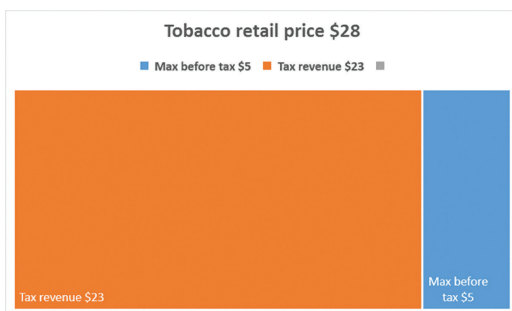
Government mandated retail price and maximum price before tax

A mandated retail price would mean that all brands would be the same price per cigarette or tobacco weight. A periodically adjusted Government mandated retail tobacco price per cigarette (or tobacco weight), combined with a maximum price before tax, would enable Government to control the effect of tobacco tax rises. It would remove the tobacco industry's current ability to smooth or minimise the effects of excise tax increase, enable the Government to reduce the profits tobacco companies make from an addictive dangerous product, and prevent potential windfall profits from a minimum price system alone.[4-7]

The maximum price before tax would be set at the point tobacco leaves bond, and the importer or manufacturer would have to provide for wholesale and retail margins from that maximum price. The mandated retail price allows the Government to remove any marketing ability based on price.

Example: Maximum pack price before tax \$5, mandated pack retail price \$28 (\$23 tax). Tax revenue (and/or a dedicated tax) could be increased by either lowering the maximum price before tax, increasing the mandated retail price, or both. See Figure 2.

Figure 2: Example of maximum pack price before tax \$5, mandated pack retail price \$28 (\$23 tax)



'Maximum price before tax' systems are widely used when there are private monopolies or restricted markets, as a way to protect communities. For instance, with power, fuel, communications or other networks.[96 97] This system would also be suitable for the commercial sale of an addictive dangerous product.

Recommendation 2:

Dedicated tobacco tax revenue

Until 2025, the dedication of at least \$100m (currently about 5%) of tobacco tax revenue annually for tobacco control. This funding would support improved mass media campaigns,[35-38] enriched Quitline services integrated with policy changes,[39 40] policy and other work on tobacco product additive restrictions or reductions in nicotine content,[41-43] and enhanced policies (eg, outdoor smokefree environments) that assist smokers to quit and prevent smoking uptake. Such policies can reduce health inequalities and save health system costs.[39]

Recommendation 3:

Continued tobacco tax rises

Continuing to use tobacco tax increases to reduce smoking prevalence and uptake, as long as a proportion of tobacco tax revenue is dedicated for tobacco control, and smokefree policy changes are made to make it easier for smokers to quit.

Recommendation 4:

Differential increase in loose tobacco tax

Ensure that RYO cigarettes are not a cheaper alternative to factory made cigarettes and do not encourage smokers to switch between products as an alternative to quitting. This can be done by implementing a differentially greater increase in loose tobacco (RYO) taxation, monitoring the impact and repeating as necessary.

FURTHER INFORMATION

Further information on the background to tobacco control in New Zealand is available in:

- The August 2017 *Achieving Smokefree Aotearoa by 2025* (ASAP) report.[33]
- The *Evidence and Feasibility Review Summary Report* accompanying the ASAP report.[80]

And in the attached appendices:

- A.** *Achieving Smokefree Aotearoa by 2025*: pp.19-20 (section on tobacco affordability recommendations)[33]
- B.** *ASAP Evidence and Feasibility Review Summary Report*: pp.6-10 (Summary of evidence for tobacco affordability interventions)[80]

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REFERENCES

1. Chaloupka F, Cummings K, Morley C, et al. Tax, price and cigarette smoking: evidence from the tobacco documents and implications for tobacco company marketing strategies. *Tob Control* 2002;11(Suppl 1):162-72.
2. Smith KE, Savell E, Gilmore AB. What is known about tobacco industry efforts to influence tobacco tax? A systematic review of empirical studies. *Tob Control* 2013;22(2):144-53. doi: 10.1136/tobaccocontrol-2011-050098
3. Thomson G, Wilson N. What is tobacco tax for—revenue or health? *N Z Med J* 2012;125(1362)(1362):110-11.
4. Gilmore AB, Branston JR, Sweanor D. The case for OFSMOKE: how tobacco price regulation is needed to promote the health of markets, government revenue and the public. *Tob Control* 2010;19(5):423-30. doi: 10.1136/tc.2009.034470
5. Branston JR, Gilmore AB. The case for Ofsmoke: the potential for price cap regulation of tobacco to raise pound500 million per year in the UK. *Tob Control* 2014;23(1):45-50. doi: 10.1136/tobaccocontrol-2011-050385
6. Golden SD, Farrelly MC, Luke DA, et al. Comparing projected impacts of cigarette floor price and excise tax policies on socioeconomic disparities in smoking. *Tob Control* 2016;25(Suppl 1):i60-i66. doi: 10.1136/tobaccocontrol-2016-053230
7. Golden SD, Smith MH, Feighery EC, et al. Beyond excise taxes: a systematic review of literature on non-tax policy approaches to raising tobacco product prices. *Tob Control* 2016;25(4):377-85. doi: 10.1136/tobaccocontrol-2015-052294
8. Farber HJ, Nelson KE, Groner JA, et al. Public Policy to Protect Children From Tobacco, Nicotine, and Tobacco Smoke. *Pediatrics* 2015;136(5):998-1007. doi: 10.1542/peds.2015-3109
9. Chaiton M, Ferrence R, LeGresley E. Perceptions of industry responsibility and tobacco control policy by US tobacco company executives in trial testimony. *Tob Control* 2006;15 Suppl 4:iv98-106. doi: 10.1136/tc.2004.009647
10. Warner KE. The national and international regulatory environment in tobacco control. *Public Health Res Pract* 2015;25(3):e2531527. doi: 10.17061/phrp2531527
11. Pechacek TF, Nayak P, Slovic P, et al. Reassessing the importance of 'lost pleasure' associated with smoking cessation: implications for social welfare and policy. *Tob Control* 2017 doi: 10.1136/tobaccocontrol-2017-053734
12. Wilson N, Edwards R, Weerasekera D. High levels of smoker regret by ethnicity and socioeconomic status: national survey data. *N Z Med J* 2009;122(1292):99-100.
13. Nayak P, Pechacek TF, Slovic P, et al. Regretting Ever Starting to Smoke: Results from a 2014 National Survey. *Int J Environ Res Public Health* 2017;14(4) doi: 10.3390/ijerph14040390
14. Sansone N, Fong GT, Lee WB, et al. Comparing the experience of regret and its predictors among smokers in four Asian countries: findings from the ITC surveys in Thailand, South Korea, Malaysia, and China. *Nicotine Tob Res* 2013;15(10):1663-72. doi: 10.1093/ntr/ntt032
15. Fong GT, Hammond D, Laux FL, et al. The near-universal experience of regret among smokers in four countries: findings from the International Tobacco Control Policy Evaluation Survey. *Nicotine Tob Res* 2004;6 Suppl 3:S341-51.
16. Henningfield JE, Zeller M. Nicotine psychopharmacology: policy and regulatory. *Handb Exp Pharmacol* 2009(192):511-34. doi: 10.1007/978-3-540-69248-5_18
17. Blakely T, Cobiac LJ, Cleghorn CL, et al. Health, Health Inequality, and Cost Impacts of Annual Increases in Tobacco Tax: Multistate Life Table Modeling in New Zealand. *PLoS medicine* 2015;12(7):e1001856. doi: 10.1371/journal.pmed.1001856
18. Mason K. Burden of disease from second-hand smoke exposure in New Zealand. *N Z Med J* 2016;129(1432):16-25.
19. Hiscock R, Branston JR, McNeill A, et al. Tobacco industry strategies undermine government tax policy: evidence from commercial data. *Tob Control* 2017 doi: 10.1136/tobaccocontrol-2017-053891
20. Gilmore AB, Tavakoly B, Taylor G, et al. Understanding tobacco industry pricing strategy and whether it undermines tobacco tax policy: the example of the UK cigarette market. *Addiction* 2013;108(7):1317-26. doi: 10.1111/add.12159
21. Marsh L, Cameron C, Quigg R, et al. The impact of an increase in excise tax on the retail price of tobacco in New Zealand. *Tob Control* 2015:Online July 2. doi: 10.1136/tobaccocontrol-2015-052259
22. Cowie N, Glover M, Gentles D. Taxing times? Smoker response to tax increases. *Ethnicity and Inequalities in Health and Social Care* 2014;7(1):36-48.
23. Chaloupka FJ, Straif K, Leon ME. Effectiveness of tax and price policies in tobacco control. *Tob Control* 2011;20(3):235-8.

24. US National Cancer Institute, World Health Organization. The Economics of Tobacco and Tobacco Control. National Cancer Institute Tobacco Control Monograph 21. Bethesda, MD and Geneva: US Department of Health and Human Services, National Institutes of Health, National Cancer Institute; and World Health Organization, 2016. Accessed March 26, 2018. https://cancercontrol.cancer.gov/brp/tcrb/monographs/21/docs/m21_complete.pdf
25. Filippidis FT, Laverty AA, Hone T, et al. Association of Cigarette Price Differentials With Infant Mortality in 23 European Union Countries. *JAMA Pediatr* 2017;171(11):1100-06. doi: 10.1001/jamapediatrics.2017.2536
26. Sim D, Ball J, Edwards R. Examining the effect of increasing tobacco prices on adolescent smoking (POS2-69). SRNT. Baltimore, 2018. Accessed March 28, 2018. https://c.ymcdn.com/sites/www.srnt.org/resource/resmgr/conferences/2018_Annual_Meeting/65388_SRNT_2018_Abstract_fin.pdf
27. van der Deen FS, Wilson N, Cleghorn CL, et al. Impact of five tobacco endgame strategies on future smoking prevalence, population health and health system costs: two modelling studies to inform the tobacco endgame. *Tob Control* 2017:Online June 24; 10.1136/tobaccocontrol-2016-053585. doi: 10.1136/tobaccocontrol-2016-053585
28. Cleghorn CL, Blakely T, Kvizhinadze G, et al. Impact of increasing tobacco taxes on working-age adults: short-term health gain, health equity and cost savings. *Tob Control* 2017 doi: 10.1136/tobaccocontrol-2017-053914
29. National Academies of Sciences E, and Medicine,. Public health consequences of e-cigarettes. Washington, DC: The National Academies Press, 2018. doi: <https://doi.org/10.17226/24952>.
30. Clapp PW, Jaspers I. Electronic Cigarettes: Their Constituents and Potential Links to Asthma. *Curr Allergy Asthma Rep* 2017;17(11):79. doi: 10.1007/s11882-017-0747-5
31. Huang SJ, Xu YM, Lau ATY. Electronic cigarette: A recent update of its toxic effects on humans. *J Cell Physiol* 2018;233(6):4466-78. doi: 10.1002/jcp.26352
32. Edwards R, Thornley S. Endgames for smoking [presentation]. Wellington: University of Otago, Wellington, 2018. Accessed April 16, 2018. <https://www.otago.ac.nz/wellington/otago683392.pdf>
33. Thornley L, Edwards R, Waa A, et al. Achieving Smokefree Aotearoa by 2025. Wellington: University of Otago, Quitline Group Trust, Hāpai te Hauora, 2017. <https://aspire2025.files.wordpress.com/2017/08/asap-main-report-for-web2.pdf>
34. Wilson N, Thomson G. Tobacco Taxation and Public Health: Ethical Problems, Policy Responses. *Soc Sci Med* 2005;61(3):649-59.
35. Edwards R, Hoek J, van der Deen F. Smokefree 2025--use of mass media in New Zealand lacks alignment with evidence and needs. *Australian and New Zealand journal of public health* 2014;38(4):395-6. doi: 10.1111/1753-6405.12246
36. Brennan E, Durkin SJ, Cotter T, et al. Mass media campaigns designed to support new pictorial health warnings on cigarette packets: evidence of a complementary relationship. *Tob Control* 2011;20(6):412-8. doi: 10.1136/tc.2010.039321
37. Wakefield MA, Bowe SJ, Durkin SJ, et al. Does tobacco-control mass media campaign exposure prevent relapse among recent quitters? *Nicotine Tob Res* 2013;15(2):385-92. doi: 10.1093/ntr/nts134
38. Durkin S, Brennan E, Wakefield M. Mass media campaigns to promote smoking cessation among adults: an integrative review. *Tob Control* 2012;21(2):127-38. doi: 10.1136/tobaccocontrol-2011-050345
39. Nghiem N, Cleghorn CL, Leung W, et al. A national quitline service and its promotion in the mass media: modelling the health gain, health equity and cost-utility. *Tob Control* 2017 doi: 10.1136/tobaccocontrol-2017-053660
40. Wilson N, Weerasekera D, Hoek J, et al. Increased smoker recognition of a national quitline number following introduction of improved pack warnings: ITC Project New Zealand. *Nicotine Tob Res* 2010;12 Suppl:S72-7.
41. Government of Canada. Order Amending the Schedule to the Tobacco Act (Menthol): Government of Canada, 2017. Accessed April 14, 2018. <https://www.canada.ca/en/health-canada/programs/consultation-changes-tobacco-act-address-menthol/order-amending-schedule-tobacco-act-menthol.html?wbdisable=true>
42. Munafo M. Understanding the Role of Additives in Tobacco Products. *Nicotine Tob Res* 2016;18(7):1545. doi: 10.1093/ntr/ntw142
43. van de Nobelen S, Kienhuis AS, Talhout R. An Inventory of Methods for the Assessment of Additive Increased Addictiveness of Tobacco Products. *Nicotine Tob Res* 2016;18(7):1546-55. doi: 10.1093/ntr/ntw002
44. Wiltshire S, Bancroft A, Parry O, et al. 'I came back here and started smoking again': perceptions and experiences of quitting among disadvantaged smokers. *Health Educ Res* 2003;18(3):292-303.
45. Edwards R, Carter K, Peace J, et al. An examination of smoking initiation rates by age: results from a large longitudinal study in New Zealand. *Australian and New Zealand journal of public health* 2013;37(6):516-9.
46. Gray RJ, Hoek J, Edwards R. A qualitative analysis of 'informed choice' among young adult smokers. *Tob Control* 2016;25(1):46-51. doi: 10.1136/tobaccocontrol-2014-051793
47. Hoek J, Ball J, Gray R, et al. Smoking as an 'informed choice': implications for endgame strategies. *Tob Control* 2017;26(6):669-73. doi: 10.1136/tobaccocontrol-2016-053267
48. Hoek J, Smith K. A qualitative analysis of low income smokers' responses to tobacco excise tax increases. *Int J Drug Policy* 2016;37:82-89. doi: 10.1016/j.drugpo.2016.08.010
49. Thomson GW, Wilson NA, O'Dea D, et al. Tobacco spending and children in low-income households. *Tob Control* 2002;11(4):372-5.

50. Waa A, Edwards R, Stanley J, et al. Indigenous and non-indigenous experiences and views of tobacco tax increases (PS-984-3). World Conference on Tobacco or Health. Cape Town, 2018:p.263. Accessed March 28, 2018. file:///C:/Users/gethoms/Downloads/Abstract-Book.pdf
51. Wilson N, Weerasekera D, Edwards R, et al. Smoker support for increased (if dedicated) tobacco tax by individual deprivation level: national survey data. *Tob Control* 2009;18(6):512.
52. Hirono KT, Smith KE. Australia's \$40 per pack cigarette tax plans: the need to consider equity. *Tob Control* 2017;April 10. doi: 10.1136/tobaccocontrol-2016-053608
53. Jha P, Musgrove P, Chaloupka FJ, et al. The economic rationale for intervention in the tobacco market. In: Jha P, Chaloupka FJ, eds. *Tobacco Control in Developing Countries*. Oxford: Oxford University Press 2000.
54. Wallbank LA, MacKenzie R, Beggs PJ. Environmental impacts of tobacco product waste: International and Australian policy responses. *Ambio* 2017;46(3):361-70. doi: 10.1007/s13280-016-0851-0
55. Laux FL. Addiction as a market failure: using rational addiction results to justify tobacco regulation. *Journal of health economics* 2000;19(4):421-37.
56. Gruber J. Government policy towards smoking: a view from economics. *Yale J Health Policy Law Ethics* 2002;3(1):119-26.
57. Ball J, Edwards R, Waa A, et al. Is the NZ Government responding adequately to the Māori Affairs Select Committee's 2010 recommendations on tobacco control? A brief review. *N Z Med J* 2016;129 (1428):93-97.
58. Edwards R, Hoek J, van der Deen F. Smokefree 2025: use of mass media in New Zealand lacks alignment with evidence and needs. *Australian and New Zealand journal of public health* 2014;38(4):395-6. doi: 10.1111/1753-6405.12246
59. Lotu-liga S. Report back on New Zealand's Tobacco Control Programme: Cabinet paper to the Cabinet Social Policy Committee from the Associate Minister of Health. Wellington: New Zealand Cabinet Office, 2016. Accessed April 12, 2018. <https://www.health.govt.nz/system/files/documents/pages/cabinet-paper-8-april-2016.pdf>
60. Ministry of Health. Tobacco released for sale in New Zealand 2016. Wellington: New Zealand Ministry of Health, 2017. Accessed April 12, 2018. https://www.health.govt.nz/system/files/documents/pages/tobacco_returns_infographic.pdf
61. Wakefield MA, Coomber K, Durkin SJ, et al. Time series analysis of the impact of tobacco control policies on smoking prevalence among Australian adults, 2001-2011. *Bulletin of the World Health Organization* 2014;92(6):413-22. doi: 10.2471/BLT.13.118448
62. Atusingwize E, Lewis S, Langley T. Economic evaluations of tobacco control mass media campaigns: a systematic review. *Tob Control* 2015;24(4):320-7. doi: 10.1136/tobaccocontrol-2014-051579
63. Lightwood J, Glantz SA. The effect of the California tobacco control program on smoking prevalence, cigarette consumption, and healthcare costs: 1989-2008. *PLoS One* 2013;8(2):e47145. doi: 10.1371/journal.pone.0047145
64. David AM, Haddock RL, Bordallo R, et al. The use of tobacco tax revenues to fund the Guam Cancer Registry: A double win for cancer control. *J Cancer Policy* 2017;12:34-35. doi: 10.1016/j.jcpo.2017.03.006
65. World Health Organization. Earmarked tobacco taxes: lessons learnt from nine countries. Geneva: World Health Organization, 2016. Accessed April 18, 2018. http://apps.who.int/iris/bitstream/handle/10665/206007/9789241510424_eng.pdf;jsessionid=9CAC99C386F3F29D0D7B180982AF567E?sequence=1
66. Cashin C, Sparkes S, Bloom D. Earmarking for health: from theory to practice (Health Financing Working Paper No. 5). Geneva: World Health Organization, 2017.
67. Hill S, Amos A, Clifford D, et al. Impact of tobacco control interventions on socioeconomic inequalities in smoking: review of the evidence. *Tob Control* 2014;23(e2):e89-e97. doi: 10.1136/tobaccocontrol-2013-051110
68. Ministry of Health. Tier 1 statistics 2016/17: New Zealand Health Survey. Wellington: New Zealand Ministry of Health, 2017. Accessed April 12, 2018. <https://minhealthnz.shinyapps.io/nz-health-survey-2016-17-tier-1/>
69. Ministry of Health. 2012/13 New Zealand Health Survey: Results for tobacco module. Wellington: New Zealand Ministry of Health, 2013. Accessed April 12, 2018. <https://www.health.govt.nz/system/files/documents/publications/tobacco-use-2012-13-s1-smoking-status.xlsx>
70. Wilson N, Thomson G, Tobias M, et al. How Much Downside?: Quantifying the Relative Harm from Tobacco Taxation. *Journal of epidemiology and community health* 2004;58(6):451-4.
71. Ministry of Health. Data tables for 2016 tobacco annual returns. Wellington: New Zealand Ministry of Health, 2017. Accessed April 12, 2018. https://www.health.govt.nz/system/files/documents/pages/tobacco_returns_data_tables.xlsx
72. Ministry of Health. Tobacco returns 2017. Wellington: New Zealand Ministry of Health, 2018. Accessed April 16, 2018. <https://www.health.govt.nz/our-work/preventative-health-wellness/tobacco-control/tobacco-returns/tobacco-returns-2017>

73. Edwards R, Waa A, Stanley J, et al. Use of roll-your-own tobacco among smokers in New Zealand (EP-166-4). World Conference on Tobacco or Health. Cape Town, 2018;p.103. Accessed April 9, 2018. https://aspire2025.files.wordpress.com/2018/04/wctoh_e_poster_itc-ryo-cape-town-2018.pdf
74. Nosa V, Glover M, Min S, et al. The use of the 'rollie' in New Zealand: preference for loose tobacco among an ethnically diverse low socioeconomic urban population. *N Z Med J* 2011;124(1338):25-33.
75. Young D, Wilson N, Borland R, et al. Prevalence, correlates of, and reasons for using roll-your-own tobacco in a high RYO use country: findings from the ITC New Zealand survey. *Nicotine Tob Res* 2010;12(11):1089-98. doi: 10.1093/ntr/ntq155
76. Healey B, Edwards R, Hoek J. Youth Preferences for Roll-Your-Own Versus Factory-Made Cigarettes: Trends and Associations in Repeated National Surveys (2006-2013) and Implications for Policy. *Nicotine Tob Res* 2016;18(5):959-65. doi: 10.1093/ntr/ntv135
77. Hoek J, Ferguson S, Court E, et al. Qualitative exploration of young adult RYO smokers' practices. *Tob Control* 2016;26(5):563-68. doi: 10.1136/tobaccocontrol-2016-053168
78. Ajmal A, U V. Tobacco tax and the illicit trade in tobacco products in New Zealand. *Aust N Z J Public Health* 2015;39(2):116-20. doi: 10.1111/1753-6405.12389
79. Cobiac LJ, Ikeda T, Nghiem N, et al. Modelling the implications of regular increases in tobacco taxation in the tobacco endgame. *Tob Control* 2015;24(e2):e154-60. doi: 10.1136/tobaccocontrol-2014-051543
80. Thornley L, Edwards R, Waa A, et al. Evidence and Feasibility Review Summary Report [Supporting material for Achieving Smokefree Aotearoa by 2025]. Wellington: University of Otago, Quitline Group Trust, Hāpai te Hauora, 2017. Accessed March 26, 2018. <https://aspire2025.files.wordpress.com/2017/08/asap-evidence-feasibility-review-for-web-final-24-aug.pdf>
81. Shury J, Speed M, Vivian D, et al. Crime against retail and manufacturing premises: findings from the 2002 Commercial Victimisation Survey. London: Home Office (UK), 2005. Accessed April 18, 2018. http://doc.ukdataservice.ac.uk/doc/7143/mrdoc/pdf/7143_rdsolr3705.pdf
82. Pearson AL, van der Deen FS, Wilson N, et al. Theoretical impacts of a range of major tobacco retail outlet reduction interventions: modelling results in a country with a smoke-free nation goal. *Tob Control* 2014;24:e32-e38. doi: 10.1136/tobaccocontrol-2013-051362
83. Pearson AL, Cleghorn CL, van der Deen FS, et al. Tobacco retail outlet restrictions: health and cost impacts from multistate life-table modelling in a national population. *Tob Control* 2016;(E-publication 22 September) doi: 10.1136/tobaccocontrol-2015-052846
84. Robertson L, Marsh L, Edwards R, et al. Regulating tobacco retail in New Zealand: what can we learn from overseas? *N Z Med J* 2016;129(1432):74-9.
85. World Health Organization. Tobacco and its environmental impact: an overview. Geneva, 2017. Accessed April 9, 2018. <http://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-engpdf;jsessionid=F869D810FA64B4275642201C436775F5?sequence=1>
86. Bansal-Travers M, Cummings KM, Hyland A, et al. Educating smokers about their cigarettes and nicotine medications. *Health Educ Res* 2010;25(4):678-86. doi: 10.1093/her/cyp069
87. Curtis C, Collins S, Cunningham S, et al. Extended Producer Responsibility and Product Stewardship for Tobacco Product Waste. *Int J Waste Resour* 2014;4(3) doi: 10.4172/2252-5211.1000157
88. Curtis C, Novotny TE, Lee K, et al. Tobacco industry responsibility for butts: a Model Tobacco Waste Act. *Tob Control* 2017;26(1):113-17. doi: 10.1136/tobaccocontrol-2015-052737
89. Jimenez S, Labeaga JM. Is it possible to reduce tobacco consumption via alcohol taxation? *Health economics* 1994;3(4):231-41.
90. Room R. Smoking and drinking as complementary behaviours. *Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie* 2004;58(2):111-5. doi: 10.1016/j.biopha.2003.12.003
91. Lee J-M. The synergistic effect of cigarette taxes on the consumption of cigarettes, alcohol and betel nuts. *BMC public health* 2007;7:121.
92. Pierani P, Tiezzi S. Addiction and interaction between alcohol and tobacco consumption. *Empirical Economics* 2008;37(1):1-23.
93. Guiney H, Li J, Walton D. Barriers to successful cessation among young late-onset smokers. *N Z Med J* 2015;128 (1416)(1416):51-61.
94. Kahler CW, Spillane NS, Metrik J. Alcohol use and initial smoking lapses among heavy drinkers in smoking cessation treatment. *Nicotine Tob Res* 2010;12(7):781-5. doi: 10.1093/ntr/ntq083
95. George S, Rogers RD, Duka T. The acute effect of alcohol on decision making in social drinkers. *Psychopharmacology* 2005;182(1):160-9. doi: 10.1007/s00213-005-0057-9
96. Cowan S. Price-cap regulation. *Swedish Economic Policy Review* 2002;9:167-88.
97. Tirole J. Market Failures and Public Policy. *American Economic Review* 2015;105(6):1665-82.

APPENDIX A

Achieving Smokefree Aotearoa by 2025

From: Thornley L, Edwards R, Waa A, et al. Achieving Smokefree Aotearoa by 2025. Wellington: University of Otago, Quitline Group Trust, Hāpai te Hauora, 2017 pp.19-20.
<https://aspire2025.files.wordpress.com/2017/08/asap-main-report-for-web2.pdf>

OBJECTIVE 1: AFFORDABILITY

Make tobacco products less affordable

Action 1.1

Increase tobacco excise tax by 20% annually in 2019, 2020 and 2021

We recommend that measures to reduce the affordability of tobacco products should continue and be enhanced with three years of annual tax increases. The increases should be inflation-adjusted – a 20% increase above the normal indexation for Consumer Price Index changes.

This is likely to help reduce smoking uptake and increase cessation. The evidence suggests this will have the greatest impact on reducing smoking among Māori, people on low incomes and young people.⁹⁻¹²

We acknowledge the potential adverse effects on smokers on low incomes and recommend measures are taken to mitigate these impacts, such as increasing smoking cessation support for smokers on low incomes.

Action 1.1 will produce an increase in tobacco tax revenue. This is a potential source of funding for enhanced smoking cessation support and other measures recommended in this action plan. Available evidence and monitoring tells us the increases should be timed to maximise impact in prompting people to quit smoking.

This action would require new finance legislation. We recommend this be enacted as part of the Budget 2018, with the first tax increase occurring in January 2019 (or as soon as possible).

We also recommend ongoing monitoring and review of the impact of tax increases and responses of the tobacco industry. A full three-year review should be completed by July 2021. This will inform decisions about the requirement for further actions to reduce tobacco product affordability in order to reach the 2025 goal.

Action 1.2

Establish a minimum retail price that must be charged for tobacco products, with effect from December 2020

Tobacco tax rises do not automatically translate to tobacco retail price rises or equivalent increases for different tobacco products. Minimum price regulation is a way to ensure the impacts of the tobacco tax increases aren't undermined by tobacco industry actions designed to minimise their effect.

This is a potential source of funding for enhanced smoking cessation support and other measures recommended in this action plan. An example of industry response in the face of tobacco tax increases is differential price increases so that the price of 'budget' brands is kept low while 'premium' brand prices increase. This has the effect of shielding many smokers from the tax increases and encourages brand switching as a way to reduce the impact of tobacco tax increases.

This action should also include restrictions on price promotions.

This action will require new legislation and could be included in the new Smokefree Aotearoa 2025 Act. The new legislation for this action should be in force by December 2020.

Complementary measures to support actions to make tobacco less affordable

The positive impact of the tobacco tax increases should be maximised, and potential adverse effects minimised, using the following complementary measures.

1. **Implement concurrent enhanced smoking cessation support and marketing by December 2018.** Support for cessation should include targeted support for Māori, Pacific and low-income smokers and increased capacity for the Quitline. Marketing needs to include Quitline advertising and integrated stop-smoking mass media campaigns. This will maximise the positive impact of the tax increases and minimise adverse economic effects on people on low incomes.

Mass media campaigns should include specific marketing of the tax increases and addressing the potential unintended consequences – to make it clear to the public that the measure is effective, the benefits outweigh the costs and that, if the retailing of tobacco products is causing security problems, then the industry should take responsibility for security measures (as happens with other high-value products, such as money in banks or jewellery retail).

2. **Implement an additional one-off 15% increase in tobacco tax on roll-your-own (RYO) tobacco,** in addition to the recommended base increase of 20%. This action aims to stop RYO cigarettes from being a cheaper alternative to factory-manufactured cigarettes, which can undermine the beneficial impact of tax increases. We recommend this measure is introduced with finance legislation as part of the Budget 2018, and is started to coincide with the tobacco tax increases in January 2019.
3. **End duty-free concessions for tobacco products by 2018.** Aotearoa New Zealand still allows duty-free tobacco products to be brought into the country. In 2014 the duty-free personal concession was lowered from 200 cigarettes to 50 cigarettes (or 50 grams of tobacco or cigars or a mixture of all three weighing not more than 50 grams). It is an anomaly to provide any tax incentive for the purchase and consumption of tobacco products, and such a concession undermines the impact of tobacco tax increases. We recommend this concession is ended by introducing legislation as part of the 2018 Budget.



THE EVIDENCE SUGGESTS TAX INCREASES HELP PEOPLE ON LOW INCOMES, MĀORI AND PACIFIC PEOPLES, AND YOUNG PEOPLE TO QUIT SMOKING.

IT WILL BE VITAL TO SUPPORT SMOKERS ON LOW INCOMES TO QUIT – THROUGH ENHANCED CESSATION SUPPORT, REDUCED RETAIL AVAILABILITY AND PRODUCT CHANGES.

APPENDIX B

ASAP Evidence and Feasibility Review Summary Report

From: Thornley L, Edwards R, Waa A, et al. Evidence and Feasibility Review Summary Report [Supporting material for Achieving Smokefree Aotearoa by 2025]. Wellington: University of Otago, Quitline Group Trust, Hāpai te Hauora, 2017 pp.6-10. Accessed March 26, 2018. <https://aspire2025.files.wordpress.com/2017/08/asap-evidence-feasibility-review-for-web-final-24-aug.pdf>

Affordability – Make tobacco less affordable

Summary of rationale for Objective 1:

We have prioritised an increase to tobacco excise tax based on compelling evidence of effectiveness and the impact on reducing socioeconomic and ethnic disparities in smoking (and resulting health inequalities). Modelling evidence predicts greater health gain for Māori compared to non-Māori from ongoing annual tax increases.²

In addition, New Zealand stakeholders strongly supported this policy option. Tax increases are an established measure that attract high public support. There are precedents in other countries for higher tax increases, for example Australia has legislated annual tobacco tax increases that are higher than 10% until the year 2020 (in 2010 they increased tax by 25%).³

Potential adverse effects need to be considered, particularly the impact on low-income smokers and retailers, but we believe these impacts can be mitigated.

Minimum price regulation is a relatively new policy measure internationally, but it is considered promising in the research literature. The measure is used in many US states. In Aotearoa New Zealand, there have been recent increases in the availability and sales of budget brands, and survey evidence indicates that smokers switch to budget brands in response to tobacco tax increases. This suggests minimum price regulation is needed to maximise the impact of tobacco tax increases in promoting smoking cessation.

KEY ADVANTAGES

1.1 Increase annual tobacco excise tax by 20%

Likely to help achieve 2025 goal as tax increases are supported by strong evidence of effectiveness and may help reduce disparities in smoking.

Higher tax increases are recommended by international expert bodies (such as IARC).

Incremental extension of an established measure is relatively feasible and could be introduced fairly rapidly as a Budget measure in 2018.

Larger tax increases are acceptable to NZ tobacco control stakeholders⁴ and the public (particularly if some of the additional revenue is used for helping smokers quit).³⁰

1.2 Minimum price regulation

Recommended in the recent literature as a way to counter industry efforts to keep prices low, particularly for budget brands.

May raise prices, reduce price dispersion and complement increased excise taxes.

Already implemented in many US states and jurisdictions.

KEY DISADVANTAGES

Potential for hardship among those who don't quit.

This needs to be mitigated, for example, by intensifying and better targeting support for smoking cessation to reduce the impact on Māori, Pacific and low-income smokers.

Potential opposition from Treasury to higher tax increases.

The tobacco industry will oppose tax rises.

Possible increased risk to retailers of tobacco-related crime. This should be mitigated by rapid reductions in smoking prevalence and demand for tobacco with the implementation of the action plan and specifically by Action 2.1 (reducing the number of retailers selling tobacco products – these could have enhanced storage and security in place).

Risk of illicit tobacco trade – not a large problem in NZ but requires continued vigilance and robust enforcement.

Only limited evidence is available to base decisions on, as it is an emerging area of tobacco control.

Reviewed papers – tax and price

Our review included:

- Eight recent systematic reviews (2011-2016) on the effectiveness or cost-effectiveness of tax and price interventions.⁵⁻¹²
- Six other reviews including:
 - One narrative scoping review on public support¹³
 - One systematic overview of systematic reviews on social inequalities¹⁴
 - One brief review on taxation as part of a wider paper on US tobacco control strategies¹⁵
 - One large review of evidence on the impact of tobacco taxes and prices on tobacco use, and the added impact from dedicating tobacco tax revenues to other tobacco control efforts¹⁶
 - One review on cost-effectiveness of various interventions including tax and price¹⁷
 - One qualitative review of the literature on tobacco control endgame strategies, including minimum price regulation and price cap regulation¹⁸
- One individual paper on price cap regulation¹⁹
- Eight New Zealand studies: two modelling studies,^{20, 24} one qualitative study on low-income smokers' responses to tax increases,²¹ one qualitative study of Māori and Pacific tobacco control stakeholder views on large tax increases and other endgame policies,⁴ and four surveys of smokers.^{22, 23, 25, 26}

Summary of evidence – tax and price interventions

Action 1.1 Increase tobacco excise tax by 20% (above inflation) annually in 2019, 2020 and 2021

Aotearoa New Zealand has a history of regular annual tobacco excise tax increases, including current increases of 10% annually above inflation, which have occurred since 2010. The 2016 Budget introduced ongoing 10% tax rises for the four years until 2020.

We recommend increasing the current annual tobacco excise tax by 20% above inflation annually for three years from 2019-2021, with a review in 2021 to assess the need for continued increases. This is a potential source of funding for enhanced smoking cessation support and other measures recommended in this action plan. Available evidence and monitoring tells us the increases should be timed to maximise impact in prompting people to quit smoking.

Evidence on the effectiveness of raising the price of tobacco

Our evidence review found compelling evidence that tobacco tax and price interventions are highly effective in reducing tobacco use, preventing children and young people from taking up smoking, and motivating smokers to quit. The evidence is consistent and includes the findings of eight recent systematic reviews (2011-2016).⁵⁻¹²

Some researchers and expert tobacco control organisations, including the US National Cancer Institute and the World Health Organization, point to tax increases as the single most effective tobacco control intervention, compared with all other interventions.^{5, 8}

The effectiveness of tobacco tax/price increases in reducing tobacco-related morbidity and mortality is supported by a small, but growing, evidence base.⁵

Examples of the effect of tobacco prices on smoking prevalence

The World Bank estimated that a 10% cigarette price increase results in a 7% decrease in smoking consumption by young people and 4% by adults.⁸

One authoritative US review estimated that increasing the unit price for tobacco products by 20% would reduce overall consumption of tobacco products by 10.4%, prevalence of adult tobacco use by 3.6%, and youth initiation of tobacco use by 8.6%.¹²

The University of Otago's Burden of Disease Epidemiology, Equity and Cost-Effectiveness Programme (BODE³) has carried out modelling on the impact of annual 10% and 20% increases in tobacco tax. This work suggests it will have a substantial impact on smoking prevalence, but will be insufficient on its own to achieve the Smokefree Aotearoa 2025 goal.^{2, 24} This work also showed that tax increases can result in major health gains and cost-savings to the health sector.

Tax and price increases are considered the most cost-effective of traditional tobacco control interventions. They cost the least, while raising new revenue, so are politically attractive.⁵

Evidence is not yet available to inform the specific size and timing of tax increases. For example, the question of whether to introduce smaller regular increases or a sudden, larger increase at three-yearly intervals. Both approaches have potential merits. For this action plan, we have selected ongoing increases of 20% annually rather than a 'shock' increase. Our reasons for this include consistency with the current incremental approach, which is a well-established measure in many settings.

Effects on equity and reducing disparities

Evidence from Aotearoa New Zealand and overseas suggests that increasing tobacco tax can help to reduce socioeconomic disparities in smoking. Consistent research in high-income countries indicates that lower-income populations are more responsive to tobacco tax/price rises, and tax/price increases are associated with reduced income disparities. Our review identified four systematic reviews from 2014-16 to support this finding,^{6, 9, 10, 20} as well as Aotearoa New Zealand evidence on the positive effects of tax increases in socio-economically disadvantaged communities.²⁵

Some research indicates that tax/price interventions can be effective in reducing ethnic disparities.¹² Recent Aotearoa New Zealand evidence suggests that annual tobacco tax increases may have a greater positive impact on reducing Māori and Pacific tobacco use, compared with non-Māori.²⁶ Modelling evidence also predicts greater gain for Māori, compared to non-Māori, from ongoing annual tax increases.²⁰

In contrast, another study suggests the 2012 tax increase may have had stronger effects on non-Māori (compared to Māori) quitting behaviour.²² The study authors noted that Māori participants nonetheless reported more financial pressure to quit.

Further research is needed to investigate the effects on ethnic disparities, and the financial hardship experiences of low-income smokers.²¹ Any adverse effects should be monitored, as part of the ongoing evaluation of the action plan's impact, so that appropriate measures to mitigate these impacts can be introduced.

Importance of complementary measures

It may be argued that tobacco products are already expensive in Aotearoa New Zealand, and that previous tax increases have not yet significantly reduced Māori and Pacific smoking. Our proposal is for a much larger increase than previously (20% instead of 10% annual increases), which we expect to have a greater positive impact. Complementing the tax increases with the other measures in the action plan is likely to enhance effectiveness for Māori and Pacific smokers. Complementary measures include targeted smoking cessation support, enhanced and targeted mass media campaigns, additional increases on roll-your-own (RYO) tobacco (these are smoked much more commonly by Māori)²⁷ and ensuring that alternative nicotine delivery products (such as electronic cigarettes) are more accessible and affordable than smoked tobacco products.

Stakeholder support

Consistent with the evidence, stakeholders in our engagement process expressed strong support for increasing the price of tobacco products. The consulted stakeholders strongly agreed that increasing tax/price and reducing retail availability and supply were the two highest priorities of the six intervention areas discussed (see above).

An online survey of 32 stakeholders, carried out as part of the engagement process, revealed that 20% annual increases were favoured over two other options (continuation of the current 10% annual increase, and a larger one-off increase of 30% followed by 20% increases annually).

Feasibility and public support

Drawing on the evidence and expert views of Aotearoa New Zealand stakeholders, we assess the recommended annual tax increase as a highly feasible and acceptable intervention. Increasing tax is an established measure with a long history in Aotearoa New Zealand, which can be implemented simply by amending finance legislation. This could be introduced as part of the Budget in 2018.

Aotearoa New Zealand and international evidence suggests the public endorse tax increases,^{7, 28, 29} including some evidence of smoker support and among young people. Public and smoker support appears particularly strong if some of the additional revenue raised is allocated to the national tobacco control programme to help support smokers to quit.³⁰

Possible adverse effects of tobacco price rises

Potential impact on low-income smokers

We have considered the potential for adverse impacts of tax/price increases – particularly on poorer smokers and on crime affecting tobacco retailers. Low-income smokers who quit as a result of the tax increases will benefit financially. However, some low-income smokers who continue to smoke may be disadvantaged financially as a result. Others who continue to smoke will not be disadvantaged, for example, if they compensate by smoking less tobacco.

Some Aotearoa New Zealand research suggests hardship may have increased for some low-income smokers following recent tax increases.²¹ In particular, potential negative impacts on the children of smokers will need to be carefully monitored and addressed. For example, addicted smokers, including parents with dependent children, may forgo spending on household essentials in order to buy tobacco. More research is needed.

This potential effect should be mitigated by enhancing access to free high-quality services for smoking cessation support targeted to low-income, Māori and Pacific smokers; possibly using dedicated tax revenue to fund this support. Without such supporting interventions to help increase quitting, the adverse financial effects of tax increases are likely to impact disproportionately on low-income smokers who continue to smoke. As noted earlier, close monitoring of the impact of the tax increases should occur so that further mitigation measures can be considered if necessary.

Potential impact of tax increases on retail crime

Recently, media reports have drawn attention to various crimes targeted at retailers in Aotearoa New Zealand, including the theft of tobacco products and violence against small retailers in dairies and service stations. Such crimes

are clearly undesirable and unacceptable. At present, data is not available to confirm whether these crimes are increasing, and if they are, what factors are driving the increase. However, understandable concern and anxiety is being expressed by retailers and others.

We believe the response to retail crime should not be to abandon the established, evidence-based policy of tobacco tax increases. This would harm the health of New Zealanders since tobacco price increases are so strongly associated with reducing and preventing tobacco use and prompting smokers to quit. Reversing the tax increases would benefit tobacco manufacturers, who have a vested interest in keeping tobacco products affordable. Finally, the effects of abandoning tax increases on retail crime are unknown.

Our view is that implementing a comprehensive action plan for achieving Smokefree Aotearoa by 2025, as in the accompanying action plan, offers the best solution to the issue of tobacco-related retail crime for the following reasons.

1. Large reductions in smoking prevalence that result from implementation of a comprehensive action plan will have an impact on reducing demand for tobacco products, which in turn will reduce an important driver of tobacco-related retail crime.
2. Another objective in our action plan – to greatly reduce the availability of tobacco products – will help reduce tobacco-related retail crime by dramatically reducing the number of tobacco retail outlets. This will decrease the availability of tobacco products for theft and require tobacco to be sold from stores with adequate storage and security arrangements.

Potential increase in illicit trade (smuggling) of tobacco

Smuggling is unlikely to be a major problem in Aotearoa New Zealand because of geographic isolation, strong border controls, and effective tax administration and enforcement. The risk of illicit trade is probably greatly overstated as a problem and has not been a major issue to date in Aotearoa New Zealand, despite ongoing tax increases.³¹

Action 1.2 Establish a minimum retail price that must be charged for tobacco products, with effect from December 2019

Minimum price regulation is a relatively new, but growing, area of tobacco control. Laws to regulate the minimum price of tobacco products are already in place in at least 24 US states and the District of Columbia.¹⁸ As noted in the *Achieving a Smokefree Aotearoa by 2025* action plan, the main action plan, the main rationale for regulating the minimum price of tobacco is to counter the tobacco industry's efforts to keep prices low in response to increases in tax, such as price discounting.

Evidence on the effectiveness of minimum price regulation

Evidence is emerging on the effects of minimum price laws, so only limited evidence is currently available. A systematic review in 2016 found the most common 'non-tax' price interventions were minimum price regulation and restrictions on price promotions.⁷ The review noted that these two interventions are seen as promising complements to tobacco taxes, and recommended the use of both interventions.

The current literature includes few studies that measured the impact of these interventions on average prices, price dispersion or disparities in tobacco consumption, since much of the literature focuses on policy development and potential legal challenges.⁷ Of the three studies in the 2016 review that explicitly measured the effects of minimum price laws on price-related outcomes, two found no evidence that average cigarette prices were higher in places with minimum price laws, and one found no average price impacts of a voluntary, industry-led policy. Three other studies found that policies to restrict price promotions were associated with lower awareness of promotional offers.⁷ The review's authors emphasise there is a need for further research in this area.

Aotearoa New Zealand survey research suggests that smokers do switch to cheaper brands of tobacco products in response to increased tobacco taxes, which minimum price regulation would help to deter. One survey revealed that more than a fifth of smokers and recent ex-smokers on low incomes switched from premium to cheaper brands following tobacco tax increases.²⁵ Analysis of the annual tobacco returns by tobacco manufacturers and importers provides evidence of brand positioning and growth in the availability and sales of budget brands.³²

Stakeholder support

Minimum price regulation was not specifically discussed in our stakeholder engagement process, as the focus was on increasing tobacco taxes.

Feasibility and acceptability

Several papers analysed in a 2016 review of 'non-tax' price interventions, including minimum price regulation, found evidence of public support for these types of tobacco pricing policies.⁷ No Aotearoa New Zealand evidence on public support for minimum price regulation was located for our review; the current evidence on public support appears focused on tobacco tax increases.

Summary of evidence on tax and price interventions

Evidence assessment	Strong evidence for tobacco tax increases. Newly-emerging limited evidence for minimum price regulation.
Effectiveness	We assessed increasing tobacco tax as highly effective and minimum price regulation as uncertain (because it is an emerging area with limited evidence available).
Equity and reducing disparities	We assessed the likely impact on equity and reducing disparities as positive for tobacco tax increases and uncertain for minimum price regulation. The evidence suggests that people on low incomes and young people are more responsive to tobacco tax increases. Some evidence, including from Aotearoa New Zealand, is available to suggest tobacco tax increases can reduce disparities in terms of income and ethnicity.
Cost-effectiveness	Tobacco tax increases are highly cost-effective, and minimum price regulation is likely to be cost-effective.
Unintended impacts	We considered three main potential adverse effects: possible impact on smokers on low incomes, impacts on retail crime, and impacts on illicit trade (smuggling) of tobacco products. The first two are important considerations for Aotearoa New Zealand, but can be mitigated, whereas illicit trade is less likely to be a major problem.
Technical feasibility	We assessed technical feasibility of tobacco tax increases as high – because it is an established measure that can be done by amending finance legislation. Minimum price regulation, as a new measure, is assessed as moderately feasible.
Political feasibility	Tobacco tax increases are assessed 'moderate to high' in terms of political feasibility, and minimum price regulation is assessed as moderately feasible politically.
Acceptability / public support	We assess acceptability of tobacco tax increases as moderate to high, based on strong international and Aotearoa New Zealand evidence of public and smoker support for tax and price interventions in general, including among young people. (Majority support is found among smokers only if the extra revenue is ear-marked to support smokers to quit). Acceptability of minimum price regulation is assessed as moderate based on overseas evidence of public support.
Precedents	Tobacco tax increases are standard practice in multiple countries including Aotearoa New Zealand. Acceptability of minimum price regulation is in place in at least 24 US states and the District of Columbia. Integrated mass media campaigns and concurrent enhanced cessation support has been implemented in Iceland, Switzerland and Vietnam.

