

Tax Working Group Public Submissions Information Release

Release Document

February 2019

taxworkingroup.govt.nz/key-documents

Key to sections of the Official Information Act 1982 under which information has been withheld.

Certain information in this document has been withheld under one or more of the following sections of the Official Information Act, as applicable:

- [1] 9(2)(a) to protect the privacy of natural persons, including deceased people;
- [2] 9(2)(k) to prevent the disclosure of official information for improper gain or improper advantage.

Where information has been withheld, a numbered reference to the applicable section of the Official Information Act has been made, as listed above. For example, a [1] appearing where information has been withheld in a release document refers to section 9(2)(a).

In preparing this Information Release, the Treasury has considered the public interest considerations in section 9(1) of the Official Information Act.



Corporate Finance & Economics Expertise [1] w: www.tdb.co.nz

November 1 2018

Sir Michael Cullen Chair, Tax Working Group PO Box 3724 Wellington 6140

Email: submissions@taxworkinggroup.govt.nz

Dear Sir Michael,

Incorporating Harm Reduction in Tobacco Taxation

In its September 2018 interim report, the Tax Working Group highlighted concerns regarding the current tobacco tax policy. In response to the interim report, Philip Morris (New Zealand) Limited (PMNZ) engaged TDB Advisory to prepare a submission on matters raised by the Tax Working Group. PMNZ has provided the Tax Working Group a separate submission on the topic.

There are now a range of reduced-risk alternatives to smoking including heat-not-burn (HnB) or heated tobacco products, that heat a portion of tobacco to a temperature that releases vapour and flavour, without reaching the temperature threshold for combustion.

The current tax policy does not take into consideration differences in risk profiles between smoking tobacco and smoke-free alternatives. This submission proposes to:

- create a separate excise tax for heated tobacco; and
- introduce a lower excise tax rate on these products that reflects their reduced risk.

This approach is consistent with the policy principles underpinning the application of tobacco excise in New Zealand and could help address the concerns raised by the Tax Working Group.

I would be happy to answer any questions the Tax Working Group may have about this submission.

Yours sincerely,

Phil Barry Director



Incorporating Harm Reduction in Tobacco Taxation

A submission to the Tax Working Group

November 1 2018 tdb.co.nz

TDB Advisory Limited L5, Wakefield House 90 The Terrace P.O. Box 93 Wellington New Zealand

Tel (+644) 934 8740 Email: info@tdb.co.nz

Principal contacts for this report:

Name: Ian Dickson

Name: Phil Barry [1]

Disclaimer

This submission has been prepared by TDB Advisory Ltd (TDB) with care and diligence. The statements and opinions given by TDB in this report are given in good faith and in the belief on reasonable grounds that such statements and opinions are correct and not misleading. However, no responsibility is accepted by TDB or any of its officers, employees, subcontractors or agents for errors or omissions arising out of the preparation of this submission, or for any consequences of reliance on its content or for discussions arising out of or associated with its preparation.

TDB Advisory was engaged by Phillip Morris (New Zealand) Limited ("PMNZ") to prepare this submission. The statements and opinions expressed in this report are the product of our own research and analysis of information available as at the date of the report.

An advance draft of this report was provided to PMNZ, solely for the purpose of verifying factual matters. Minor changes were made to the drafting of the report as a result of the circulation of the draft report. There was no alteration to any part of the substance of this report, including the methodology or conclusions as a result of issuing the draft.

Table of contents

1. Ex	ecutive summary	4
1.1	Introduction	4
1.2	Current tax treatment of tobacco and other alternatives	4
1.3	Harm reduction	5
1.4	Reflecting harm reduction in policy	6
1.5	Incorporating harm reduction in tobacco taxation	6
2. Int	roduction	8
2.1	Reduced-risk alternatives to smoking and harm reduction	8
2.2	Report structure	10
3. Ba	ckground	11
3.1	Introduction	11
3.2	A history of excise tax	11
3.4	New Zealand's current tobacco taxation and consumption	14
3.5	Conclusions	17
4. Wł	ho pays tobacco excise?	18
4.1	Tax incidence	18
5. Pro	oposal for conversation on reduced-risk products	25
5.1	Harm reduction	25
6. Co	nclusions	29
References		

List of figures

Figure 1: Excise and excise equivalents duties table	14
Figure 2: Recent Increases in Excise Duty on Cigarettes	15
Figure 3: Comparative Tobacco Tax in relation to GDP per capita	16
Figure 4: Smoking prevalence by quintiles	19
Figure 5: Estimated effective tobacco tax as a percent of median quintile income	20
Figure 6: Comparison of effective tax rates on heavy smokers by quintile	21
Figure 7: Per capita tobacco tax by ethnic group	22
Figure 8: Trends in smoking prevalence by Māori	22
Figure 9: Trends in smoking prevalence for Pasifika	23
Figure 10: Linear trend in smoking prevalence	24
Figure 11: Excise and Excise-equivalent Duties on Tobacco Products	27

1. Executive summary

1.1 Introduction

In March 2011, the Government adopted the Smokefree 2025 goal for New Zealand. Smokefree 2025 aims to reduce tobacco availability and smoking prevalence to less than 5 percent to effectively make New Zealand a smoke-free nation by 2025. Part of the policy approach to achieve this goal has been substantial annual tobacco excise tax increases.

Although smoking rates have declined since 2011, it appears unlikely that the Smokefree 2025 goal will be achieved under the current policy approach. As the Tax Working Group highlighted in its recent interim report, smoking levels have not dropped commensurate with the tax increases.¹ Despite tobacco tax becoming a significant burden on those who smoke, with unwanted social impacts, many Māori, Pasifika and young adults are not quitting. At the current rates of decline, it is estimated that smoking will persist in the general population until after 2050, however it will persist among Māori until after 2080 and among Pasifika until after 2120.

In response to the Tax Working Group's interim report, Philip Morris (New Zealand) Limited engaged TDB Advisory to prepare an analysis of the current tobacco tax policy. This report invites the Tax Working Group to examine the policy principles underpinning the application of tobacco excise and proposes an update to tobacco policy in response to technological developments and evolving government policy on harm reduction.

1.2 Current tax treatment of tobacco and other alternatives

Similarly with other countries, tobacco tax policy in New Zealand is designed to prevent smoking initiation and encourage smoking cessation. Where New Zealand stands out from other like-minded countries is the rapid escalation of all tobacco excise rates since 2010 to unprecedented levels internationally.

Currently in New Zealand, the excise duty on cigarettes not exceeding 0.8 kg of tobacco content per 1,000 cigarettes, is \$826.58 per 1,000 cigarettes. For cigarettes containing more than 0.8 kg of tobacco content per 1,000 cigarettes and smoking tobacco, the applied excise duty is \$1,177.87 per kg of tobacco content. For other tobacco products (e.g., cigars) the applied excise duty is \$1,033.20 per kg of tobacco content.

As recognised by the Tax Working Group, increasingly high tobacco tax has led to three seemingly unintended consequences for consideration:

• the regressive nature of the tax increases, disproportionately burdening low income smokers;

¹ Tax Working Group, New Zealand. (2018). Future of Tax Interim Report. (page 77) available from <u>https://taxworkinggroup.govt.nz/resources/future-tax-interim-report-html</u>.

- the apparent reduction in effectiveness of large excise increases on reducing smoking; and
- the recent rise in criminal activity involving cigarettes.

The interim report recommended the Government consider other measures to encourage smoking cessation ahead of further large increases in tobacco excise.

1.3 Harm reduction

Harm reduction refers to policies and regulations that focus on reducing health risks. This usually involves providing safer forms of hazardous products, or encouraging less risky behaviours, rather than simply focusing on eradication of products or behaviours. Professor Gerry Stimson of Imperial College, London defines tobacco harm reduction as follows:

"the tobacco harm reduction proposition is straightforward: smokers risk disease and premature death; most smokers say they want to stop smoking and many have tried; many find it hard to stop and many are unable or unwilling to give up nicotine. The provision of safer ways of delivering nicotine enables people to continue using nicotine but to avoid the health risks of smoking." ²

There are now a range of reduced-risk alternatives to smoking tobacco. These fit broadly into three main categories of products:

- e-cigarettes and e-liquids (vapes), that produce a nicotine-infused flavoured vapour using a battery powered heating system;
- heat-not-burn (HnB) or heated tobacco products, that heat a portion of tobacco³ to a temperature that releases vapour and flavour, without reaching the temperature threshold for combustion; and
- oral smokeless tobacco and nicotine products, including products such as snus, a type of moist powdered tobacco, typically held in the mouth between the lips and gums, generally in a tea bag type pouch.

The current tax policy does not take into consideration differences in risk profiles between smoking tobacco and these alternatives. Under the existing New Zealand fiscal framework:

- e-cigarettes and e-liquids are not subject to excise tax;
- HnB consumables are taxed based on the weight of tobacco, at \$1,033 per kg of tobacco content, the same level as cigars; and
- the sale of snus is currently banned.⁴

² Stimson, G.V. (2016) A tale of two epidemics: drugs harm reduction and tobacco harm reduction in the United Kingdom. Drugs and Alcohol Today, 16 (3), p. 203-11.

³ Products vary among manufacturers, but in general the process involves turning tobacco leaves into a paper-like substance by pulping, compressing and drying. The resulting product cannot be reconstituted for smoking tobacco. ⁴ Ministry of Health New Zealand. (2017). Regulatory Impact Statement: Regulation of e-cigarettes and emerging tobacco and nicotine-delivery products. Available from <u>https://www.health.govt.nz/our-work/preventative-health-</u> wellness/tobacco-control/vaping-smokeless-including-heated-tobacco.

1.4 Reflecting harm reduction in policy

The UK can be seen as a leading exponent of tobacco harm reduction. The UK Parliament Science and Technology Select Committee recently conducted an enquiry into e-cigarettes and novel tobacco products, in the process taking evidence from a wide range of stakeholders, public health experts. This report concluded:

"There is clear evidence that e-cigarettes are substantially less harmful than conventional cigarettes. Public Health England estimate e-cigarettes as 95% less harmful, although the evidence available does not currently allow a precise figure to be determined." [Paragraph 27]

"More recently introduced 'heat-not-burn' products—producing nicotine from tobacco but without the combustion—have been estimated to be around 90% less harmful than conventional cigarettes,. " [Paragraph 28] ⁵

In New Zealand, there has also been an acknowledgement of the need for a harm reduction policy framework. In May 2018, the Government stated that:

"it is considering how best to apply risk proportionate regulation across all tobacco products including smoked tobacco, smokeless tobacco and vaping products." ⁶

This was followed more recently by a statement at the World Health Organisation Framework Convention on Tobacco Control (WHO FCTC) 8th Conference of the Parties (CoP8), October 2018, that the New Zealand Government is:

*"looking at introducing risk proportionate regulations for vaping products to provide smokers with a significantly less harmful alternative."*⁷

1.5 Incorporating harm reduction in tobacco taxation

This submission puts forward a proposal to create a separate excise category for HnB tobacco with a unique excise rate. There are currently separate excise categories for cigarettes, cigars and loose tobacco, reflecting the characteristics and intended use of these products. It makes sense to create a new separate category for HnB tobacco for two reasons. Firstly, it is a product with fundamentally different characteristics from smoking tobacco products, because it is non-combustible and does not produce smoke. Secondly, it is relatively less harmful and a lower level of taxation would change smoker behaviour, encouraging switching from more harmful products.

⁵ UK Parliament Science and Technology Committee, "E-Cigarettes", 2017,

https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/505/505.pdf.

⁶ Ministry of Health New Zealand. (2017). Regulatory Impact Statement: Regulation of e-cigarettes and emerging tobacco and nicotine-delivery products. Available from <u>https://www.health.govt.nz/our-work/preventative-health-</u>wellness/tobacco-control/vaping-smokeless-including-heated-tobacco.

⁷ New Zealand representative at the World Health Organisation Framework Convention on Tobacco Control 8th Conference of the Parties. (2018). Statement. Second Plenary Meeting. Available from

http://www.who.int/fctc/cop/sessions/cop8/live-streaming/en/ with speech from 2:03:00 until 2:06:25.

There appear to be three broad options for determining an excise rate to apply to HnB consumables:

- 1. the same rate as currently applies to cigars and other tobacco products, \$1,033.20 per kg of tobacco;
- 2. excise free, as currently applies to e-liquids; or
- 3. a rate that is in between Option 1 and Option 2, reflecting the likely reduction in risk from these products. Based on various reports about their estimated reduction in risk, this level could be reduced by 90 percent of the current level, to a level of \$103.32 per kg of tobacco content.

This approach is consistent with the policy principles underpinning the application of tobacco excise in New Zealand and could help address the concerns raised by the Tax Working Group.

In its September 2018 interim report,⁸ the Tax Working Group highlighted concerns about tobacco excise taxation. The interim report listed three seemingly unintended consequences for consideration:

- the heavy burden of tobacco excise on low-income earners in poorer areas of the country, which display substantially higher smoking prevalence than the general population;
- the reduction in smoking prevalence appears to have slowed, particularly given the size of the tax increases; and
- high tobacco excise appears to be a factor contributing to criminal activity involving cigarettes.⁹

The interim report recommended the Government consider other measures to encourage smoking cessation ahead of further large increases in tobacco excise.

In response to the interim report, Philip Morris (New Zealand) Limited engaged TDB Advisory to prepare this submission on the matters raised. This report invites the Tax Working Group to examine the policy principles underpinning the application of tobacco excise and proposes an update to tobacco policy in response to technological developments and evolving government policy on harm reduction.

2.1 Reduced-risk alternatives to smoking and harm reduction

There are now a range of reduced-risk alternatives to smoking. These fit broadly into three main categories of products described in Section 1: (1) e-cigarettes; (2) heat-not-burn (HnB) or heated tobacco products; and (3) oral smokeless products, such as snus.

Harm reduction as a policy has gained increasing acceptance both in New Zealand and other countries. In New Zealand, the Government announced in May 2018 that it was considering how to apply risk proportionate regulation across smoked tobacco, smokeless tobacco and vaping.¹⁰

Public Health England (PHE), an agency of the UK government's Department of Health, has been particularly pragmatic in advocating for "harm-reduction" policies that will reduce the adverse health consequences of cigarettes. Essentially, PHE says that when stacked against one of the most

⁸ Tax Working Group, New Zealand. (2018). Future of Tax Interim Report. Available from <u>https://taxworkinggroup.govt.nz/resources/future-tax-interim-report-html</u>.

⁹ The comment is given against a background of a spate of violent robberies of convenience store for cigarettes. Tobacco tax also provides the economic driver for the illicit trade in tobacco. According to the Framework Convention Alliance (2008), approximately 11 percent of the world cigarette market in 2006 was illicit.

¹⁰ Ministry of Health New Zealand. (2017). Regulatory Impact Statement: Regulation of e-cigarettes and emerging tobacco and nicotine-delivery products. Available from <u>https://www.health.govt.nz/our-work/preventative-health-</u>wellness/tobacco-control/vaping-smokeless-including-heated-tobacco.

harmful substances known to human health (cigarettes), e-cigarettes (and other alternatives) fare better and ought to be used to help smokers quit.¹¹

With respect to taxation, the UK Science and Technology Committee has stated that:

"The level of taxation on smoking-related products should directly correspond to the health risks that they present, to encourage less harmful consumption. Applying that logic, e-cigarettes should remain the least-taxed and conventional cigarettes the most, with heat-not-burn products falling between the two" [Paragraph 82]¹²

In March 2018, the UK Treasury released its report on a consultation on the application of excise duty to heated tobacco products.¹³ In the UK, HnB consumables are currently taxed at the level of other smoking tobacco. However, the UK Government has announced that it will create a separate category for heated tobacco products by legislation later this year, which will be taxed on a per kg basis of their tobacco content. The UK Budget presented on 29 October 2018 announced that HnB consumables will attract the same tax rate per kg tobacco weight as 'hand-rolling tobacco'. Although hand-rolling tobacco is a combustible product, in the UK it has long had a considerable tax advantage compared to the tax level on cigarettes. This implies that the effective tax rate on HnB will be significantly lower than that on cigarettes. As in New Zealand, e-cigarettes are not subject to excise duty in the UK.

The criteria for inclusion in the new HnB category in the UK are:

- is not cigarettes, cigars, hand-rolling tobacco, other smoking tobacco, or chewing tobacco;
- consists of or includes tobacco; and
- has been manufactured as an insert for exclusive use in a device designed to produce an aerosol for inhalation without combustion of the tobacco.

Internationally, the approach of creating dedicated tax categories for HnB products has been adopted in 21 out of the 36 countries HnB products are sold so far.¹⁴ In all but one of these cases the excise tax on HnB products is lower than cigarettes.

https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/505/505.pdf.

¹¹ Public Health England has concluded that e-cigarettes are around 95 percent less harmful than tobacco (Public Health England. (2015). Public Health England: E-cigarettes: an evidence update.).

¹² UK Parliament Science and Technology Committee, "E-Cigarettes", 2017,

¹³ Her Majesty's Treasury. (2018). Tax treatment of heated tobacco products: repose to the consultation.

¹⁴ Fruits, E, (2018). Vapor products, harm reduction, and taxation. Principles, evidence, and a research agenda.

International Centre for Law & Economics. Available from <u>https://laweconcenter.org/wp-content/uploads/2018/10/Harm-Reduction-White-Paper-v9.1-181001.pdf</u>.

2.2 Report structure

The rest of this report is structured in sections as follows:

- Section 3 provides background on tobacco in New Zealand, reviewing the history and context of tobacco taxation and tobacco control in response to changing understanding of the personal and societal effects of tobacco consumption;
- Section 4 discusses the incidence of tobacco excise, presents estimates of who pays the tax and considers the fairness of the results; and
- Section 5 presents a proposal for amendment to the tax for reduced-risk products.

3. Background

3.1 Introduction

This section provides an overview of the history and context of tobacco taxation and tobacco control in New Zealand and how that response has changed in response to changing understanding of the personal and societal effects of tobacco consumption and smoking.

3.2 A history of excise tax

Excises are an example of indirect taxes. Indirect taxes are collected from the supplier of goods and services rather than directly on income or profits. The supplier is an intermediary who recovers the indirect tax from the consumer as part of the price charged for goods and services. The consumer ultimately pays the tax by paying more for the goods and services than the tax-free selling price.¹⁵

Excises have existed for centuries. The infamous French salt *gabelle* was a temporary tax under Louis IX from 1259. The tax became permanent in 1341, until it was repealed in 1789 by the Revolutionaries. It was later reinstated by Napoleon Bonaparte in 1804 and remained in force until 1947.

Excise was first levied in Britain in 1643 on beer. Excise on tobacco was first introduced in 1660, not quite a century after the leaves and the practice of smoking was brought to England in 1565. Stamp duty was originally an excise on paper and vellum introduced in 1694 (two years before the infamous Window Tax). Stamp duty survived as a tax collected by stamping legal documents giving evidence to (particularly) real property transfers, mortgages and leases.

Customs duties on imports were an early revenue source for the colonial administration in New Zealand. The first excise in New Zealand was imposed on distilled spirits in 1866, followed by domestically grown tobacco in 1879 and on domestically brewed beer the following year.

Excises are usually applied as one of the two types explained below, or a combination of both:

- ad valorem, a fixed percentage charged on the selling price of a good or service or value of a financial or real property transaction; and
- specific, a fixed currency amount charged on a physical unit (\$ per unit) related to the good or service. The physical unit may be mass, volume, quantity or weight.

¹⁵ The incidence of an indirect tax is determined by the elasticity of consumption in response to a price rise. If consumption is unresponsive (inelastic) the burden will fall mainly on the consumer (forward-shifted). However, if consumption is responsive to the price rise (elastic) the burden will fall mainly on the supplier (backward-shifted).

Excises in New Zealand are a duty¹⁶ on the domestic manufacture of excised goods. Imported counterparts are subject to customs duty at a rate equivalent to the excise rate that would apply, had the products been produced domestically. The Customs and Excise Act 2018, provides the legal authority.

New Zealand applies a system of fully specific excise, which is recognised by international financial organisations (i.e., IMF and the World Bank) as best practice.¹⁷ Regular indexation of specific excise rates to inflation, with a 10 percent escalation in certain periods has removed the main draw-back of specific rates, that they erode with inflation.

3.3 A history of tobacco control in New Zealand

Before WWI smoking rates in New Zealand were very low. At the outbreak of war, pipe smoking was the most common form of tobacco smoking in the armies of Europe. British and Empire soldiers received packets of loose tobacco (2 oz per week, roughly 50 g or 100 cigarettes) and matches with their rations. Soldiers supplemented their ration with privately purchased cigarettes because the ration was insufficient to support a smoking habit and the quartermaster's tobacco was described as "awful". At Christmas 1914 the Princess Mary Gift Fund Box was widely issued to British and Empire troops, with tobacco and cigarettes being the main contents.

The war ushered in a revolution in tobacco culture. It was also the period where cigarette advertising began. After the war tobacco consumption grew steadily to a peak of 2.27 kg per capita in 1929 before falling to 1.86 kg per capita in 1933. Coinciding with the Great Depression, consumption of cigarettes fell 46 percent while consumption of loose tobacco fell 5 percent.

Tobacco consumption in New Zealand was at its highest in 1963 at 3.35 kg per capita. That same year, cigarette advertising on television and radio stopped. In 1973, tobacco consumption was at 2.88 kg per capita and the tobacco industry voluntarily agreed not to advertise on billboards and in cinemas. The first health warnings were displayed on cigarette packets in 1974.

Until 1970, revenue generation was the dominant rationale behind tobacco taxation in New Zealand. This was the year that the idea that tobacco was harmful, and consumption ought to be discouraged was also first given mention. The Minister of Finance stated:

"Of all the products at present subject to indirect tax, it is clear that cigarettes and tobacco can be subject to additional taxation without harming in any way the general welfare of the community. In fact it is increasingly obvious that discouraging consumption of these commodities is likely to make a positive contribution to our general health."¹⁸

¹⁶ Duty is the term for a fee charged by the government on the manufacture and import or export of goods and on certain financial or real property transactions. The term indirect tax includes duties of various kinds as well as sales tax and value added tax.

 ¹⁷ See IMF₄ (2016). How to Design and Enforce Tobacco Excises? and World Bank₄ (2017). Tobacco Tax Reform and Bredenkamp, C., Iglesias, R. M. & Kaiser, K-A. (2015). Ten principles of effective tobacco tax policy. For World Bank Group. <u>http://documents.worldbank.org/curated/en/810541468000616524/pdf/98420-BRI-PUBLIC-Box393170B-ADD-SERIES.pdf.</u>
 ¹⁸ Muldoon, R. D., Minister of Finance (1970). Statement. Published by A.R. Shearer, Government Printer.

In 1984, New Zealand's first tobacco control programme began. Smoke-free policies were implemented including health education; support to quit; product health warnings; smoke-free environments; regulation of the tar in cigarettes; and a ban on tobacco event sponsorship.

In 1986, tax changes, including the introduction of GST, caused tobacco products to rise in price by 53 percent. Two years later, the sale of cigarettes to anyone under 16 years of age was banned. This was later lifted to 18 years in 1998.

From 1989 tobacco excise increases were was linked with the consumer price index (CPI).

The Smoke-free Environments Act was passed in August 1990 which:

- required all workplaces to have a policy on smoking, and also placed restrictions on smoking in many indoor workplaces. From 2004 smoking was banned in licensed premises and all other workplaces;
- banned smoking on public transport and some other public places including cafes, restaurants and casinos. This was later extended to schools and early childhood centres in 2004;
- regulated the marketing, advertising, and promotion of tobacco products and the sponsorship of products, services and events by tobacco companies;
- provided for the control and disclosure of the contents of tobacco products; and
- established the Health Sponsorship Council (HSC) to replace tobacco sponsorship.

In 2003, the WHO FCTC was signed by New Zealand. The WHO FCTC is an evidence-based treaty that reaffirms the right of all people to the highest standard of health.¹⁹

In April 2010, the excise duty on loose tobacco was increased by 29 percent and excise on cigarettes by 10 percent. From the following year, the excise duty on tobacco products was increased by 10 percent on top of CPI each January.

In the same year the National Māori Tobacco Control Strategy 2003–2007 and Action Plans were developed. Graphic pictorial health warnings appeared on all tobacco packages so that 30 percent of the front and 90 percent of the back was covered by health warnings.

In April 2011, following a Māori Affairs Select Committee Inquiry,²⁰ the Government adopted Smokefree 2025 goal. The following year, the Government agreed in principle to introduce plain packaging and for annual tobacco excise increases of 10 percent (plus inflation) to extend for the next four years. This was part of a wider government programme to prevent young people from taking up smoking and to encourage existing smokers to quit.

¹⁹World Health Organiasation. (last reprint 2005). WHO Framework Convention on Tobacco Control. <u>http://apps.who.int/iris/bitstream/handle/10665/42811/9241591013.pdf;jsessionid=1EEA5F244EF8DE0BA8A73A16F794E9</u>

BE?sequence=1.

²⁰ Māori Affairs Committee. (2010). Report of the Māori Affairs Committee - Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori.

In March 2018, following a court case brought by the Ministry of Health against PMNZ, the judiciary concluded:

*"that the use of HEETS while it may have associated risks in itself, is not as harmful or potentially harmful as ordinary cigarette use."*²¹

The judgement also submitted that: "the outcome the Ministry is seeking with this prosecution is the opposite of what Parliament sought to achieve when passing the SFEA".

There has also been an acknowledgement of the need for a harm reduction policy framework. In May 2018 the Government committed to adopt risk proportionate regulation across all tobacco and vaping products and restated this in October 2018 at the WHO FCTC 8th Conference of the Parties in Geneva.

3.4 New Zealand's current tobacco taxation and consumption

As Figure 1 below illustrates, the current excise duty on cigarettes not exceeding 0.8 kg of tobacco content per 1,000 cigarettes, is \$826.58 per 1,000 cigarettes. For cigarettes containing more than 0.8 kg of tobacco content per 1,000 cigarettes and smoking tobacco, the applied excise duty is \$1,177.87 per kg of tobacco content. For other tobacco products (e.g., cigars,) the applied excise duty is \$1,033.20 per kg of tobacco content.

Tobacco products	Rate of excise and excise-equivalent duty from 1 January 2018 (GST excluded)
Manufacture cigarettes:	
exceeding in weight 0.8 kg actual tobacco content per 1,000 cigarettes	\$1,177.87 per kilo tobacco content (KTC)
not exceeding in weight 0.8 kg actual tobacco content per 1,000 cigarettes	\$826.58 per 1,000 cigarettes
Smoking tobacco, homogenised or reconstituted tobacco	\$1,177.87 per kilo tobacco content (KTC)
Other tobacco products, eg snuff, cigars, cheroots and cigarillos	\$1,033.20 per kilo tobacco content (KTC)

Figure 1: Excise and excise equivalents duties table

Source: https://www.customs.govt.nz/about-us/news/important-notices/new-rates-for-tobacco-and-tobacco-products/

HnB consumables are taxed based on the weight of tobacco, at \$1,033 per kg of tobacco content, the same level as cigars.

Excise duty on cigarettes and all tobacco categories is due to increase by 10 percent (plus inflation) on January 1, 2019 and January 1, 2020 and annually by inflation thereafter.

²¹ Wellington District Court. (2018). Ministry of Health v Phillip Morris (New Zealand) Limited. <u>http://www.districtcourts.govt.nz/assets/unsecure/2018-03-27/2018-NZDC-4478-MOH-v-Morris.pdf</u> statement from [34].

E-cigarettes (e-liquids) are not subject to excise tax. The current tax policy does not take into consideration any differences in risk between different products and is used as means to prevent smoking initiation (by young people) and smoking cessation (by nudging smokers to quit smoking).

Excises in New Zealand are a duty²² on the domestic manufacture of excised goods. Imported counterparts are subject to customs duty at a rate equivalent to the excise rate that would apply, had the products been produced domestically.

The following chart shows the evolution of the current excise on cigarettes. Since April 2010 the excise duty rate on cigarettes has increased by 163 percent.





Note: On 29 April 2010, excise duty on cigarettes rose 10 percent, while excise on loose tobacco rose 25.4 percent. Source Stats NZ.

The excise duty on loose tobacco has increased even faster than on cigarettes. In April 2010, excise duty on loose tobacco was increased by an additional 14 percent on top of the 10 percent increase that was applied to cigarettes. Since 2010, excise tax on loose tobacco has increased by 200 percent. The purpose of the additional increase was to equalise the tax on cigarettes and loose tobacco on a weight for weight basis of the tobacco contents of "roll-your-own" and manufactured cigarettes.

Figure 3 shows New Zealand to have the highest level of tobacco excise in absolute terms and in relation to GDP per capita in the OECD.

²² Duty is the term for a fee charged by the government on the manufacture and import or export of goods and on certain financial or real property transactions. The term indirect tax includes duties of various kinds as well as sales tax and value added tax.



Figure 3: Comparative Tobacco Tax in relation to GDP per capita

Source: World Health Organisation and OECD data.

It can be noted that Figure 3 is based on WHO 2016 rates and that excise tax levels in New Zealand have since increased by over 20 percent in real terms.

3.4.1 Government revenue

Government revenue from customs and excise duty on tobacco products is on track towards \$1,807 million in the year ended 30 June 2018.²³ This is 88 percent more than was collected in the year ended 30 June 2008. In the same period the excise duty rate increased by 167 percent implying a tax elasticity of 0.52.

3.4.2 Smoking rates

Smokefree reports²⁴ New Zealand's smoking rates²⁵ in 2016/17 were as follows:

- 16 percent of adults (aged over 15 years) are regular smokers (down from 20 percent in 2006/07). Smoking rates among males are 17 percent compared with 14 percent of females;
- among the younger age groups:

²³ Source: Treasury Tax Outturn 30 June 2018.

²⁴ Smokefree. (2018). Fact and Figures.

²⁵ Indicator: Current smokers (have smoked more than 100 cigarettes in a lifetime and currently smokes at least once a month).

- youth aged 15–17 years: 4 percent smoke regularly down from 16 percent in 2006/07; and
- young adults aged 18-24 years: 20 percent smoke regularly down from 28 percent in 2006/07);
- 35 percent of Māori adults are regular smokers compared to 42 percent in 2006/07; and
- 25 percent of Pacific adults are regular smokers compared to 27 percent in 2006/07.

Comparing the 2017 (Smokefree) data with the 2013 (Census) data, it would appear that smoking rates (at a population level) are no longer declining as rapidly as they were, despite the increasing excise. Moreover, among certain population groups like Māori and Pacific adults and young adults aged 18-24 years, smoking remains persistent.

3.5 Conclusions

This section has reviewed the history and context of tobacco taxation and tobacco control in response to changing understanding of the personal and societal effects of tobacco consumption.

The idea that harm and discouraging consumption was an acceptable basis for tax emerged in 1970. Before that time revenue generation potential was the dominant motivation for tobacco taxation in New Zealand.

New Zealand's tobacco control policies began in earnest in 1984. Two years after the retail price of tobacco products rose by 53 percent in response to taxation including GST. From 1989, tobacco excise was linked with the consumer price index.

From 2010 excise duty on loose tobacco equalised with the tax on cigarettes a weight for weight basis of the tobacco content of "roll-your-own" and manufactured cigarettes. Also from that year began a 10 percent annual increase in excise rates above inflation that has persisted for the following seven years. Excise duty on cigarettes is now 93 percent higher than it was in 2009.

New Zealand has the highest excise levels on cigarettes amongst the OECD countries. Moreover, when adjusted for income levels, the tax level on cigarettes in New Zealand is higher than all other OECD countries.

There has been an acknowledgement of the need for a harm reduction policy framework. In May 2018 the Government committed to adopt risk proportionate regulation across all tobacco and vaping products and restated this in October 2018 at the WHO FCTC CoP8 in Geneva.

Yet despite the heavier taxation of tobacco products in New Zealand in recent years, tighter regulation of tobacco products, and the assistance available to help people quit smoking, adult smoking rates appear to be declining slowly at best. In particular, smoking rates remain persistently high amongst Māori and Pacific adults and young adults aged 18-24 years. It therefore seems appropriate to consider what additional measures might be considered to encourage smoking cessation or for those who cannot quit to switch to less harmful smoke-free alternatives.

In the next section we examine the available evidence on who pays the tax on tobacco products.

4. Who pays tobacco excise?

An excise tax is a tax on consumption and is ultimately paid by the final consumer of the taxed product. Like any consumer tax, the imposition of excise on tobacco affects the distribution of spending power amongst households and individuals.

This section examines the available evidence on who in society pays tobacco excise.

4.1 Tax incidence

The distribution of the tax burden is usually referred to as the "incidence". Estimates of tax incidence can be used to inform judgements about whether or not a tax is fair.

Such judgements are usually anchored in two perspectives:

- horizontal equity, which implies the same treatment is given to people in the same situation without prejudice or preference; and
- vertical equity, which implies that people with higher ability to pay (should) pay more tax.
 Vertical equity is often reinforced through progressive taxes (average tax rate rises with ability to pay). A tax is seen to be regressive when people with a higher ability to pay incur a lower average tax rate than less well-off people.

The difficulties associated with accurate determination of the economic incidence²⁶ of excise duties means that most studies of tax incidence merely assume the tax burden is passed on to the consumer in full through higher prices. The relatively inelastic demand for tobacco suggests that in general this assumption is reasonably realistic. However, as noted by the IMF in it publication: 'How to Design and Enforce Tobacco Excises?':

"As the demand curve is typically unknown over the entire range of possible tax rates and ensuing prices, governments can best pursue revenue-raising objectives through a process of sustained incremental increases in excises. Thus, governments can learn about the demand and its characteristics by gradually (but not necessarily slowly) increasing excises (in real terms) and measuring the impact on price, quantity, and tax revenue."²⁷

²⁶ Firms are legally responsible for collecting excise duties and bear the legal incidence. The economic incidence is an assessment of the distribution of a tax burden between the owners and employees of the firm and consumers. The consumer burden of a tax reflects the amount by which the market price rises while the producer burden is the decline in revenue received after paying the tax.

²⁷ IMF. (2016). How to Design and Enforce Tobacco Excises?.

https://www.imf.org/external/pubs/ft/howtonotes/2016/howtonote1603.pdf.

4.1.1 Who pays tobacco tax within society

Smoking is much more prevalent amongst the lower income groups than the general New Zealand population. As illustrated in Figure 4 below, the New Zealand Health Survey reveals that approximately 27 percent of quintile 5 are regular smokers and 19 percent of quintile 4 smoke.



Figure 4: Smoking prevalence by quintiles

Note: 1. NZ Health Survey implied population numbers adjusted to Stats NZ population 15+ years estimate.

2. NZ Health Survey smoker numbers adjusted to be 602,000 in all presentations.

3. Tobacco tax rate in 2016/17 is a composite of rates applying from 1 July 2016 and 1 January 2017.

4. Estimated average tax rates on median income understate current average tax rates by ~15 percent because of subsequent excise rise

Source: NZ Health Survey 2016/17, Household Economic Survey 2016, Stats NZ., TDB analysis

57 percent of smokers are in the two lowest income groups, Quintiles 4 and 5. We estimate this group (the two top quintile or lower income groups) contributes 51 percent of annual consumer expenditure on tobacco products.

In contrast smoking prevalence among the two highest income groups, Quintiles 1 and 2, are 8 percent and 11 percent respectively. These upper income groups account for 29 percent of annual consumer expenditure on tobacco products.

A significant proportion of the income of those in the two lowest income groups (Quintiles 4 and 5) is spent on tobacco tax. Figure 5 below illustrates the effective tobacco tax as a percent of median quintile income.



Figure 5: Estimated effective tobacco tax as a percent of median quintile income

Notes: See notes to Figure 4 Source: NZ Health Survey, Stats NZ, TDB analysis.

Figure 5 shows our estimate of the effective tobacco tax rate as a percentage of median quintile income. As may be seen:

- Quintile 5 smokers, i.e., those with the lowest income, pay an estimated 13 percent, more of their income in tax than non-smokers whose circumstances are otherwise similar;
- Quintile 3 smokers pay an estimated 3 percent more of their income in tax than nonsmokers; and
- Quintile 1 smokers, i.e., those with the lowest income, pay an estimated 1.4 percent more of their income in tax than non-smokers.

The clear conclusion is that tobacco tax is regressive.

An additional consideration is the position of heavy smokers as one-third of heavy smokers are in quintile 5 (see Figure 6 below). Both horizontal equity consideration (equal treatment of equals) and the vertical equity (average tax rates do not decline with higher income) aspect of the tax systems are adversely affected by the taxation of tobacco.



Figure 6: Comparison of effective tax rates on heavy smokers by quintile

Notes: See notes to Figure 4

In concrete terms the heaviest smokers (males aged 45 to 55 years) who consume 15 cigarettes a day have \$100 less available each week to spend on rent, power, food and their children's needs. This could be seen as disproportionately burdensome on the lowest income members of our society, as the Taxation Working Group has pointed out. Instead we consider to be better ways of reducing the harm from smoking within these groups.

4.1.2 Ethnic groups

For some extended period of time, tobacco tax has been the main policy tool in the Government's arsenal against smoking. Limiting where people can smoke, Quitline, media campaigns, advice from health professionals, bans on advertising, and nicotine replacement therapy are other tools employed.

Māori and Pasifika have been slower to quit smoking than other ethnic groups. As a result, Māori and Pasifika are paying a disproportionate share of the tobacco tax because they continue to be over-represented among the population that smokes. Figure 7 on the following page provides illustration of the high share of tobacco tax paid by these groups.

Source: NZ Health Survey, Stats NZ, TDB analysis.



Figure 7: Per capita tobacco tax by ethnic group

On a whole, smoking prevalence has been gradually decreasing. Over the period 2006/07 to 2016/17 there was a 4 percentage point drop in the percentage of the adult population over 15 years of age who smoke to 16 percent.

As Figure 8 shows below, there was a greater drop in smoking prevalence among Māori (6.7 percentage points by Māori males and 7 percentage points by Māori females), however smoking among Māori remains much higher than for the general population. In 2016/17 35 percent of Māori were smokers compared with 16 percent of the general population. Māori smokers pay 2.25 times as much tobacco tax as the general population.



Figure 8: Trends in smoking prevalence by Māori

Notes: See notes to Figure 4

Source: NZ Health Survey, Stats NZ, TDB analysis.

Source: NZ Health Survey, TDB analysis

Smoking by Pasifika is also higher than for the general population at 25 percent compared with 15.7 percent. Pasifika smokers pay, on average, 56 percent more tobacco tax than smokers in the general population. While not as dramatic a difference as for Māori,²⁸ there are contrasting trends discernible in Figure 9 below:

- there has been almost no change in smoking prevalence amongst Pasifika women in the decade to 2016/17. If anything, smoking among this group was on a rising trend before dropping by 2 percentage points in 2016/17 to the same level as 2006/07;
- while the 10-year trend shows Pasifika males quitting at close to the same rate as the background population, the recent evidence is that smoking prevalence may have reached a plateau among this group.



Figure 9: Trends in smoking prevalence for Pasifika



To illustrate the differences in smoking trends among ethnic groups, Figure 10 takes a simple linear projection of recent the trajectories for smoking trends among Māori and Pasifika to indicate the trend declines in the coming decades, assuming similar response by smokers to continued tax increases On the basis of these projections:

- Māori and Pasifika smoking may converge before 2060 (in four decades) at the smoking prevalence observed in the general population today; and
- while smoking may cease among the general population after 2050, on the basis of current trends, smoking will persist among Māori until after 2080 (six decades) and among Pasifika until 2120 (another century).

²⁸ Pasifika smokers, on average tend to consume 70 percent fewer cigarettes than Māori smokers.

Figure 10: Linear trend in smoking prevalence



Source: NZ Health Survey, TDB analysis

4.1.3 Conclusions

Tobacco excise has played a part in reducing the proportion of adults (aged over 15 years) who smoke from 20 percent to 16 per cent over the last 10 years.

The reduction in smoking has slowed and it has come at a high financial cost to the 602,000 smokers who have not quit. This financial cost of the excise tax at \$3,000 per annum paid by the average smoker²⁹ seems to be given little attention in public debate about smoking cessation and tax policy.

The higher tax spent on tobacco (as a percentage of income) paid by those on low incomes may be seen as disproportionately burdensome when it is recognised that Māori, Pasifika, the least well-off and youth aged 18 to 24 years pay extra tax as a result of tobacco tax than smokers generally and non-smokers, due to the higher smoking rates amongst these groups.

In the next section we present a proposal for a conversation about the role that risk proportionate policies might play in accelerating the cessation of smokers and in reducing some of the inequities arising from current tobacco taxation policies.

²⁹ Assumes 10 cigarettes per day, at a tax rate of \$16.53 per pack of 20 cigarettes.

5. **Proposal for conversation on reduced-risk products**

This section presents a proposal for the role that smoke-free reduced-risk products could play in the achievement of a Smokefree 2025. We consider it possible to switch regular smokers, who would otherwise not quit smoking, to using reduced risk alternatives.

5.1 Harm reduction

Harm reduction policies are commonplace across a wide range of activities that are regulated. Improving the survivability of motor vehicle accidents through safer vehicle design and compulsory seatbelts is an example. Building standards are geared towards the survivability of occupants during an earthquake. Food safety standards are intended to reduce harm from contamination. Electrical regulation allows the safe use of electricity. Workplace safety regulations promote freedom from harm in otherwise hazardous workplaces. Traffic regulations are intended to reduce harm to road users.

Within the health domain there are wide-ranging harm reduction policies and programmes including for drug addiction and safe sex. Risk-based harm reduction approaches are also common within the agriculture sector, including risk-management programmes set up under the Animal Products Act 1999, with the aim of "identify[ing] and manag[ing] known biological, chemical and physical hazards.³⁰ A range of policies and programmes are also in place to manage the environmental, health and safety risks associated with pesticides and other chemicals.

Harm reduction in connection with smoking cessation has lagged behind other areas, largely because of a lack of reduced-risk alternatives that smokers would switch to. The development of mass-market reduced-risk smoke-free products has seen differences in views among the public health community.

The UK seems to be the leading exponent of harm reduction. This side of the debate points to evidence that reduced-risk products are significantly less harmful than smoking cigarettes for:

- those who cannot or do not want to give up nicotine; and
- those who want to cut back their smoking or quit altogether.

From this follows the conclusion that smokers converting to reduced-risk alternatives to smoking have the potential to reduce the overall harm to society.

On the other hand, some people working in the tobacco-control field regard reduced-risk alternatives to smoking as a ploy by tobacco companies to "normalise" tobacco use in countries where adult smoking rates have been in decline. A particular concern voiced is the possibility of such products becoming a pathway to nicotine addiction and regular smoking.

³⁰ Ministry of Primary Industries. (2017). An overview of the Animal Products Act 1999.

There are academic critiques on the normalise smoking argument. For example, an academic study published on e-cigarette use in British Medical Journal (BMJ), found that

"there is no evidence that e-cigarettes are renormalising tobacco smoking. [...] The evidence shows that in the UK, US and other countries where e-cigarette use among young people have risen, levels of tobacco use have fallen." ³¹

Public Health England (PHE) and Royal College of Physicians also shared similar views against 'normalize smoking' idea. PHE mentioned that

"[...] there is no evidence to date that EC are renormalising smoking, instead it's possible that their presence has contributed to further declines in smoking or denormalisation of smoking." Therefore, Royal College of Physicians also agreed that "there is no evidence that either NRT or e-cigarette use has resulted in the renormalisation of smoking." ³²

5.1.1 How could heated tobacco be taxed?

We have noted earlier that e-cigarettes and e-liquids containing nicotine are not subject to excise in New Zealand and HnB consumables attract excise because of their tobacco content, at the same rate as cigars. This is despite the fact that HnB does not combust the tobacco and the user inhales an aerosol that is not smoke. As noted below, 21 countries have introduced a new category for HnB products, with an excise tax lower than that of cigarettes.

Country	HnB Tobacco Tax	Excise on HnB vs Cigarettes	Excise on HnB vs other tobacco products
Bulgaria	Specific	Below	Similar
Croatia	Specific	Below	Similar
Cyprus	Specific	Below	Similar
Denmark	Specific	Below	Similar
Greece	Specific	Below	Below
Hungary	Specific	Below	Below
Italy	Specific	Below	Similar
Japan	Specific and ad valorem	Below	Similar
Kazakhstan	Specific	Below	Below
Korea	Specific	Below	Not Comparable
Latvia	Specific	Below	Similar
Lithuania	Specific	Below	Similar
Montenegro	Specific	Below	Similar
Poland	Specific	Below	Similar
Portugal	Specific and ad valorem	Below	Similar

Table 1: Taxation of HnB Products in Selected Countries

³¹ Bauld, L., McNeill, A., Hajek, P, et al (2017). E-cigarette use in public places: striking the right balance. Tobacco Control 2017;26:e5-e6. <u>https://tobaccocontrol.bmj.com/content/26/e1/e5.info</u>.

³² Public Health England. (2015). Public Health England: E-cigarettes: an evidence update.

Country	HnB Tobacco tax	Excise on HnB vs Cigarettes	Excise on HnB vs other tobacco products
Romania	Specific	Below	Similar
Russia	Specific	Below	Above
Serbia	Specific	Below	Below
Slovakia	Specific	Below	Similar
Slovenia	Specific	Below	Below

Table 2: Taxation of HnB Products in Selected Countries (cont.)

Source: Eric Fruits, Vapor products, harm reduction, and taxation. Principles, evidence, and a research agenda. International Centre for Law & Economics, October 2018.

Israel, is the only country that has introduced a new category for heated tobacco products and applies the same excise rates as applicable to cigarettes.

Tobacco for heating comes in a variety of formats. Depending on the brand and manufacturer, the tobacco may be contained in capsules, pod or units, in the form of granulated or reconstituted leaf with and without humectants to facilitate the creation of vapor when heated. Some devices heat the tobacco directly while others first heat a liquid to generate an aerosol which passes through the tobacco. The common characteristic is that there is no combustion of the tobacco and the products are not smoked. There is likely to be continued innovation in the heated tobacco category as the market develops.

24.02	Cigars, cheroots, cigarillos, and cigarettes of tobacco or of tobacco substitutes which, if manufactured in New Zealand would be classified within Excise item number 99.60.09A, 99.60.19J, 99.60.29F, or 99.60.39C:		
	- Cigars, cheroots, cigarillos, and cigarettes containing tobacco:		
2402.10.00	 – Cigars, cheroots, and cigarillos 	per KTC	\$1,033.20
	 – Cigarettes containing tobacco: 		
2402.20.10	Exceeding in weight 0.8 kg actual tobacco content per 1,000 cigarettes	per KTC	\$1,177.87
2402.20.90	- – – Not exceeding in weight 0.8 kg actual tobacco content per 1,000 cigarettes	per 1,000	\$826.58
24.03	Other manufactured tobacco and manufactured tobacco substitutes, and "homogenised" or "reconstituted" tobacco which, if manufactured in New Zealand, would be classified within Excise item number 99.65.09C, 99.65.19L, 99.65.29H, 99.65.39E, 99.65.49B, or 99.65.59K:		
	 Smoking tobacco, whether or not containing tobacco substitutes in any proportion: 		
2403.11.90	 – Water pipe tobacco specified in Subheading Note 1 to Chapter 24.03 of the Tariff of New Zealand 	per KTC	\$1,177.87
2403.19.90	– – Other	per KTC	\$1,177.87
	– Other:		
	"Homogenised" or "reconstituted" tobacco:		
2403.91.90	Other	per KTC	\$1,177.87
	– – Other:		
2403.99.02	Snuff	per KTC	\$1,033.20
2403.99.90	Other	per KTC	\$1,033.20

Figure 11: Excise and Excise-equivalent Duties on Tobacco Products

Note: Extract from the Excise and Excise-equivalent Duties Table (Imported Goods) from 1 October 2018 Source: NZ Customs

Given the wide variety of formats, it would be difficult to define a unit for the taxable base for all formats for the heated tobacco products. A more realistic approach, followed by the vast majority of countries where the product is launched, is to apply excise to the net weight of tobacco contained in any product offering. A kg of tobacco content irrespective of the format is a practical

tax base and consistent with current practice for other tobacco products. A fully specific excise is recognised by the IMF, World Bank and other global institutions as the best approach.

There appear to be three broad options for determining an excise rate to apply to HnB consumables:

- 1. the same rate as applies to other tobacco products, \$1,033.20 per kg of tobacco;
- 2. excise free, as currently applies to e-liquids; or
- 3. a rate that is in between Option 1 and Option 2, reflecting the likely reduction in risk from these products. Based on various reports about their estimated reduction in risk, this level could be reduced by 90 percent of the current level, to a level of \$103.32 per kg of tobacco content.

Adoption of either of the second or third option requires an excise category to separate HnB or heated tobacco products from other smoking tobacco categories. Even if option 1 is pursued, it is recommended to separately classify HnB products for monitoring and statistical analysis purposes. Dedicated excise categories for HnB products have been adopted in 21 of the 36 countries where HnB products are sold so far.

6. Conclusions

Increasing tobacco taxation has contributed to reducing smoking rates, but there is evidence that the effectiveness of increasing taxes in reducing smoking has slowed. In addition, there is evidence of unintended consequences from New Zealand's very high rate of taxation in cigarettes, including reducing the disposable income of the lowest two income quintiles and increased criminal activity involving cigarettes.

Overseas experience indicates that it is possible for smokers who cannot quit smoking to switch to using less harmful smoke-free products. Reducing the tax of HnB could encourage switching that could benefit public health and alleviate the tax burden on the poor, Māori, Pasifika and young adults who within the current framework continue to smoke.

References

Amato, M. & Boyle, R. (2016). Evaluating an Excise Tax on Electronic Cigarette Consumption: Early Results. Tobacco Regulatory Science, 2016;2 (2);123-132.

Auerbach, A. & Hassett, K. (1999). A New Measure of Horizontal Equity. NBER Working Papers 7035, National Bureau of Economic Research.

Bauld, L., McNeill, A., Hajek, P, et al. (2017). E-cigarette use in public places: striking the right balance. Tobacco Control 2017;26:e5-e6.

Becker, G., Grossman, M. & Murphy, K. (1990). An Empirical Analysis of Cigarette Addiction. NBER Working Paper 3322, National Bureau of Economic Research.

Blakely, T., Cobiac, L., Cleghorn, C., et al. (2015). Health, Health Inequality, And Cost Impacts of Annual Increases in Tobacco Tax: Multistate Life Table Modelling in New Zealand. PLoS Medicine 12(7):e1001856. Doi:10.1371/journal.pmed.1001856.

Bredenkamp, C., Iglesias, R. M. & Kaiser, K-A. (2015). Ten principles of effective tobacco tax policy. For World Bank Group.

Chaloupka, F. (2016). E-Cigarette Taxation: Potential Impacts & Options. Tobacconomics.

Fruits, E, (2018). Vapor products, harm reduction, and taxation. Principles, evidence, and a research agenda. International Centre for Law & Economics.

Health Promotion Agency. (2017). "Data release: updated preliminary analysis on 2016 health & lifestyle survey electronic cigarette questions". Report prepared for the Ministry of Health New Zealand.

Her Majesty's Treasury. (2018). Tax treatment of heated tobacco products: repose to the consultation.

IMF. (2016). How to Design and Enforce Tobacco Excises?.

Jeram, J. (2018). Smoke and Vapour: The changing world of tobacco harm reduction. The New Zealand Initiative.

KPMG. (2018). Illicit tobacco in New Zealand. Prepared for Imperial Tobacco New Zealand Limited.

Levy, D., Borland, R., Lindblom, E., et al. (2017). Potential deaths averted in USA by replacing cigarettes with e-cigarettes.

Mainous, A., III., Tanner, R., Manious, R., et al. (2015). Health Considerations in Regulation and Taxation of Electronic Cigarettes. Journal of the American Board of Family Medicine.

Māori Affairs Committee. (2010). Report of the Māori Affairs Committee - Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori.

Ministry of Health New Zealand. (2017). New Zealand Health Survey 2016/17.

Ministry of Health New Zealand. (2017). Regulatory Impact Statement: Regulation of e-cigarettes and emerging tobacco and nicotine-delivery products.

Ministry of Primary Industries. (2017). An overview of the Animal Products Act 1999.

Muldoon, R. D., Minister of Finance. (1970). Statement. Published by A.R. Shearer, Government Printer.

National Academies of Sciences, Engineering, and Medicine. (2018). Public Health Consequences of E-Cigarettes. Washington, DC: The National Academies Press. https://doi.org/10.17226/24952.

New Zealand representative at the World Health Organisation Framework Convention on Tobacco Control 8th Conference of the Parties. (2018). Statement. Second Plenary Meeting. Available from http://www.who.int/fctc/cop/sessions/cop8/live-streaming/en/ with speech from 2:03:00 until 2:06:25.

NZ Customs. (2018). Excise and Excise-equivalent Duties Table.

Perry, B. (2017). Household Income in New Zealand: Trends in indicators of inequality and hardship 1982 to 2016. Ministry of Social Development.

Petit, P., Nagy, J. (2016). How to design and enforce tobacco excises?. International Monetary Fund, Fiscal Affairs Department.

Public Health England. (2015). Public Health England: E-cigarettes: an evidence update.

Rheaume, D. A Growing Sin-dustry: The History and Effects of Cigarette Excise Taxation and Regulation in the United States.

Shapiro, H. (2018). No Fire, No Smoke: Global State of Tobacco Harm Reduction. Knowledge-Action-Change.

Simonavicius, E., McNeill, A., Shahab, L., et al. (2018). Heat-not-burn tobacco products: a systematic literature review. Tobacco Control. Tob Control Epub doi: 10 1136/tobaccocontrol-2018-054419.

Statistics New Zealand. (2016). Household Expenditure Statistics: Year ended 30 June 2016.

Stimson, G.V. (2016) A tale of two epidemics: drugs harm reduction and tobacco harm reduction in the United Kingdom. Drugs and Alcohol Today.

Tax Working Group, New Zealand. (2018). Future of Tax Interim Report.

The Treasury (New Zealand). (2017). 2017 Half-Year Economic and Fiscal Update.

Thomson, G. & Wilson, N. (1997). A Brief History of Tobacco Control in New Zealand. Commissioned by AFPHM (NZ).

Truman, P., Glover, M., & Fraser, T. (2018). An Online Survey of New Zealand Vapers. International Journal of Environmental Research and Public Health.

Tucker, M. (2017). Behavioural Economic Studies of Tobacco Control: Excise Tax, Alternative Products, and Application to Priority Populations in New Zealand. A thesis submitted in partial fulfilment of the requirements for the Degree of Doctor of Philosophy in Psychology. University of Canterbury.

UK Parliament Science and Technology Committee. (2017) E-Cigarettes. https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/505/505.pdf

Wellington District Court. (2018). Ministry of Health v Phillip Morris (New Zealand) Limited. http://www.districtcourts.govt.nz/assets/unsecure/2018-03-27/2018-NZDC-4478-MOH-v-Morris.pdf statement from [34]

Wilkins, N., Yurekli, A., & Hu, T-W. (2003). Economic Analysis of Tobacco Demand. World Bank Economics of Tobacco Toolkit.

Wilson, N., Thomson, G., Tobias, M., et al. (2003). "How much downside? Quantifying the relative harm from tobacco taxation". Auckland Regional Public Health Service.

World Bank. (2017). Tobacco Tax Reform.

World Health Organiasation. (last reprint 2005). WHO Framework Convention on Tobacco Control.

http://apps.who.int/iris/bitstream/handle/10665/42811/9241591013.pdf;jsessionid=1EEA5F244EF 8DE0BA8A73A16F794E9BE?sequence=1