

# Public Health Association of New Zealand Policy on Taxation and Health

## Introduction

Public health is defined as follows:

*“Public health is the art and science of preventing disease, prolonging life and promoting the health of the population through the organised efforts of society”<sup>1</sup>*

This Public Health Association (PHA) policy paper examines ways by which the nation’s health and welfare can be improved by government financial policy.

The PHA (NZ) is a non-party political voluntary association, which provides a major forum for the exchange of information and stimulation of debate about public health in New Zealand (see the PHA web site<sup>ii</sup>). Members take a leading part in advocating for public health through submissions, seminars, the annual conference and a communications and media strategy. PHA NZ is a member of the World Federation of Public Health Associations.

Membership of PHA NZ is open to all individuals interested in public health and covers more than 300 individual members from the public, private and voluntary sectors. Members include policy makers, providers, purchasers, epidemiologists, academics/researchers, health promotion and health protection professionals, public health nurses, public health physicians, managers of health services, consultants and community workers among others.

*The Public Health Association (PHA) considers that a well-designed tax policy can promote health and reduce premature deaths. A better tax policy could reduce the use of harmful products, reduce income and asset inequality in society, and help the economy. Furthermore, revenue from “health protecting” taxes can be used to fund programmes that promote and protect health, provide health services and fund other essential government services such as education and social welfare.*

This document covers those areas that the PHA considers are the priority for tax policy:

- taxes to reduce income and asset inequality
- tobacco tax
- alcohol tax
- gambling tax

## The Public Health Association notes that:

***Tax policy to reduce inequality:*** Reduced income and asset inequality would improve population health status (particularly for Māori and low-income New Zealanders), strengthen the economy, enhance social justice, help prevent crime, strengthen democracy and enhance social capital. Such increased income and asset inequality could be achieved by developing a more progressive income tax system.

**Increasing tobacco tax:** Further increases in tobacco tax are justified on the grounds of the ongoing massive health and social costs of tobacco use and the proven effectiveness and cost-effectiveness of tax increases as a tobacco control strategy. The potential harm to the financial welfare of low-income smokers is small compared to the benefits (reduced tobacco consumption, higher quit rates, improved health and lower uptake of smoking by youth). Any harm on financial welfare can be reduced by increased smoking cessation assistance for smokers.

**Increasing alcohol tax:** Further increases in alcohol tax are justified on the grounds of the ongoing substantial health and social costs of alcohol use and the proven effectiveness of tax increases as an alcohol control strategy. The benefit of tax increases would particularly arise from reductions of motor vehicle fatalities among young people but extend to reductions of other problems (eg, high school failures, sexually transmitted diseases, child abuse and use of other drugs).

**Increasing gambling tax:** The available literature suggests a range of adverse impacts associated with problem gambling and pathological gambling (on mental health, family disruption, on work and on crime). While the data regarding suicide risk is inconclusive, the evidence is suggestive of a link. Basic economic theory and evidence from other taxes suggests that raising the price of gambling (via higher taxes) will reduce overall extent of gambling and hence reduce the prevalence of adverse problems associated with gambling.

In conclusion, there is major scope for reform of the taxation system so as to improve the health status of the population, to make New Zealand society more equitable and resilient, and to make the society and economy more sustainable.

**The PHA affirms the following principles:**

- Reducing income and asset inequality in New Zealand is desirable to improve population health and economic development. It is also a critical component of reducing health disparities between Māori and non-Māori.
- The overall taxation system should contribute to reducing income, asset and health inequality. (Given the failure of normal market mechanisms and slightly progressive income taxation systems to prevent growing levels of inequality and the detrimental effect this can have on economic growth). Ideally any increase in the tax on hazardous products and activities (eg, tobacco, alcohol and gambling) should be accompanied by reducing the income tax burden on low and middle-income New Zealanders.
- Setting tax policy is the primary role of government as well as its major source of funds. A greater proportion of taxation revenue from tobacco, alcohol and gambling should be used to prevent and treat health problems associated with these products and activities.
- Tax policy is but one of a range of social and economic measures that should be used by government to reduce health inequalities (eg, improved policies in the education, housing, employment and health sectors) and to reduce harm from tobacco, alcohol and gambling.

## **The PHA believes the following steps should be taken:**

The key steps that government should take are detailed below with additional minor recommendations described in the appendices.

1. **Use tax policy to reduce income and asset inequality:** That government adopt an overall taxation framework that reduces income and asset inequality in New Zealand society. The basis for this recommendation is that enhanced equality has public health benefits, economic benefits, social justice benefits, crime prevention benefits, strengthening of democracy and enhancing social capital.
2. **Increase tobacco taxation:** That government should ensure that tobacco excise tax increases are regular and substantial to deter new smokers and to encourage smokers to quit.
3. **Support people to quit smoking:** Price increases in tobacco could be seen to unfairly disadvantage the low-income smoker. Therefore tax increases should ideally be preceded by increased funding for tobacco control, including improved support for people to quit.
4. **Increasing alcohol tax:** That government should increase alcohol excise taxes. This would more fully deal with the externalities of alcohol misuse imposed on society, reduce the level of consumption (especially harmful consumption and consumption by youth), and allow a reduction in income taxes on low and middle-income New Zealanders (to reduce inequality in New Zealand society).
5. **Gambling tax:** Gambling tax should be used to fund problem gambling prevention and treatment services. Further research is needed on the appropriate level of gambling tax before government considers replacing gambling tax with higher levels of GST.

## **Review**

This policy will be reviewed when the government's review of the taxation system is completed in late-2001 / early 2002. Various components of this policy may also be reviewed when the PHA's specific policies on tobacco, alcohol and gambling come up for review.

## Appendix 1: Taxes to Reduce Income and Asset Inequalities

### Introduction

In many developed societies, there is a consensus that tax systems should have some degree of equality, in that those individuals with the greatest ability to pay should be taxed most heavily. This has meant that progressive income taxes have traditionally been utilised by governments to both raise funds and to do so in a way that helps minimise inequalities in society. However, this benefit on preventing inequality has been eroded where some countries (including New Zealand) have moved to a flatter range of income taxation rates in recent decades. New Zealand has also abandoned the use of inheritance tax, which is a particularly progressive type of tax.<sup>iii</sup>

Income inequality has increased in New Zealand since the early 1980s with most of the increase in income inequality occurring between 1986 and 1991. This has resulted in New Zealand having greater income inequality in the 1990s than other developed countries such as Australia, Canada and France (as measured by the Gini coefficient).<sup>iv</sup>

The PHA favours New Zealand adopting a taxation system that overall is more progressive than the current one and places a lower financial burden on low-income groups. Components of such a taxation policy could include the following:

- Developing a more progressive income tax system (possibly with the reduction of income tax requirements for the lowest income group).
- Possibly by re-introducing an inheritance tax (eg, for sums of \$1 million and over and with the appropriate measures to minimise avoidance). Inheritance tax can be a highly efficient way to interrupt the intergenerational transmission of inequality. (Inheritance can be considered to be a form of “affirmative action for the wealthy”).
- Possibly by introducing a capital gains tax for asset holdings over \$1 million and/or an asset tax (on assets over \$1 million).

Despite this document's focus on tax policy to reduce income and asset inequality, taxation reform is but one of a range of social and economic measures that should be used by government to reduce health inequalities. Other policies include improving access to higher education, housing, employment and both preventive and treatment-orientated health services for low-income populations.

### Justification

Overall taxation policy should seriously consider ways to reduce income inequality in New Zealand for the following reasons:

**Health benefits:** At present inequality in health outcomes is considerable in New Zealand.<sup>v vi vii</sup> Low incomes contribute to this differential by affecting access to education, adequate housing, transport and health care services. It has been argued that differences between social, occupational and ethnic groups are the most pressing health problem facing New Zealand.<sup>viii</sup>

As considered by the National Health Committee<sup>ix</sup> and other reviewers, there is now a reasonable body of evidence favouring certain interventions designed to reduce

inequalities in health.<sup>x xi xii</sup> Furthermore, there is evidence that redistributive policies can reduce inequality and benefit population health.<sup>xiii</sup> In the UK, the Acheson Report<sup>xiv</sup> noted that public policy relating to taxation and social security benefits provide a major vehicle for reducing the social inequalities. Also, in the UK it has been noted that a “sharp and sustained increase in the progressivity of the tax and benefit system” is required to address health inequalities.<sup>xv</sup> Yet the definitive evidence from randomised controlled trials of improving health by income supplementation is still not available.<sup>xvi</sup> Also the direct evidence relating specific components of tax policy to influencing inequality is limited and specific interventions (eg, more progressive income tax and various taxes on millionaires) have to largely be justified by their contribution to making an overall taxation system more progressive.

Improved equality of health outcomes and life expectancy for Maori are implicitly part of New Zealand society’s obligations under the Treaty of Waitangi.

Reduction in poverty may also positively impact on the health of high-income populations by reducing the prevalence of certain communicable diseases in the whole country (which can spread throughout the whole population eg, measles and pertussis).

**Economic benefits:** Inequality inhibits economic growth by undermining social cohesion, obscuring investment opportunities, lowering levels of education for low-income groups, reducing spending power and increasing social, economic and political instability.<sup>xvii</sup> Cross-national studies suggest that higher rates of inequality are associated with lower rates of economic growth.<sup>xviii</sup>

As reduced inequality leads to improved population health then this will provide economic benefits, as healthier populations tend to have higher labour productivity.<sup>xix</sup> Indeed, health improvements are disproportionately beneficial for the poor, as they depend on their labour power more than any other segments of the population.

A society with higher employment and better education for all may be making more efficient use of its human capital (especially in “knowledge-based economies”).

A wider range of taxes would provide a more resilient and sustainable tax base. At present New Zealand has a relatively high dependence on income taxes compared to many other OECD countries.

**Enhancing justice:** Distributive justice argues for improved equality of resource distribution. Justice also involves equality of opportunity (for education, employment and freedom from poverty). There is perhaps a widespread view that society should generally offer everyone the opportunity to enjoy a “fair innings” (eg, Williams<sup>xx</sup>). New Zealand society’s obligations under the Treaty of Waitangi are also relevant justice issues – ie, ensuring that Māori, as a Treaty partner, benefit from New Zealand’s economic development.

**Crime prevention:** Improved equality may reduce crime where this arises out of poverty, unemployment, poor education and a sense of alienation from society. If reduced inequality did lower crime rates, then a further benefit would be a reduction in the highly prevalent “fear of crime” throughout society and the expenditure by citizens on elaborate security systems.

**Democracy / social capital:** Democracy may work more effectively when all groups feel part of society. Similarly, civic participation and the “social capital” of a society is

possibly more effectively realised if there are not large groups which are poor, marginalised and alienated from the rest of society. Indeed, there are US data that show that income inequality impairs social capital.<sup>xxi</sup>

## **Feasibility**

The extent to which the New Zealand tax system is made more progressive needs to be balanced by the risk of high income and inheritance taxes impeding productivity, promoting tax avoidance and encouraging the black economy. However, these problems are not major ones given the experience of other developed countries with more progressive taxation systems.

**Public acceptability:** A recent survey has found that over 80% of New Zealanders say they would pay more tax (\$5.90 a week on average) to help those in need, especially the elderly, the physically disabled and the mentally ill.<sup>xxii</sup> The acceptability of a progressive taxation system could be further increased if there was more public education concerning the adverse effects of inequality on health and society. Limiting inheritance tax, capital gains and/or asset tax to millionaires (as proposed in this document) would also improve public acceptability of these taxes.

## **Recommendation**

That government adopts an overall taxation framework that reduces income inequality in New Zealand society. The basis for this recommendation is that enhanced equality has public health benefits, economic benefits, social justice benefits, crime prevention benefits, strengthening of democracy and enhancing social capital.

To support this approach the government could adopt specific quantifiable short, medium and long-term goals for reducing income inequality (as measured by a standard international measure such as the Gini coefficient).

## Appendix 2: Increasing the Level of Tobacco Tax

### Introduction

Tobacco tax has been used by New Zealand governments as a form of revenue generation, justified on public health grounds. The Ministry of Health regards tobacco taxation as part of its tobacco control strategy.<sup>xxiii</sup>

### Justification

The key justification for further increases in tobacco taxation is that this is the single most effective tobacco control intervention available to government. It is also an intervention that raises revenue that can be used to fund health promotion and health services.

**Health impact of tobacco:** Tobacco use has been estimated to cause between 3500 and 4700 premature deaths per year in New Zealand.<sup>xxiv</sup> There are also an estimated 388 deaths per year in New Zealand arising from second-hand smoke exposure.<sup>xxv</sup> The burden of suffering includes around 40 conditions known to be associated with tobacco.<sup>xxvi</sup> Some of the most notable adverse impacts on quality of life that can be caused by smoking are:

- Emphysema (that can restrict victims to years of breathing bottled oxygen in bed)
- Stroke (that can decimate mental capacity and lead to serious physical disability).
- Blindness (due to smoking-related retinal disease and cataracts).
- Limb amputations (due to peripheral vascular disease).
- Life-long asthma (from exposure to the maternal smoking in pregnancy).
- Impotence in men (due to peripheral vascular disease).
- Behavioural problems in children and adolescents exposed to smoking in pregnancy.<sup>xxvii xxviii xxix</sup>
- Sudden mass death (from house fires and wild fires due to smoking, explosions due to smoking and aircraft crashes due to fires caused by smoking).

**Equity issues:** Smoking is estimated to cause 31% of Māori deaths.<sup>xxx</sup> Māori and low-income populations also suffer disproportionately from the effects of tobacco.<sup>xxxi</sup>  
<sup>xxxii xxxiii xxxiv xxxv xxxvi xxxvii</sup> This is also the case with exposure to second-hand smoke.<sup>xxxviii</sup>

In addition to addressing equality concerns for Māori and low-income groups, tobacco control activities such as taxation also help prevent the injustice of the impact of smoking on non-smokers (via secondhand smoke and via smoking during pregnancy). By preventing the uptake of smoking by youth it also addresses the intergenerational transmission of nicotine dependence and the associated health burden.

**Addressing the costs of tobacco imposed on society including non-smokers:** Current taxation levels do not adequately account for the true externalities of tobacco use. For example, one study puts the overall social cost of smoking in New Zealand at 3.2% of total human capital and 1.7% of GDP.<sup>xxxix</sup> The costs, based on a value of a human life at two million dollars (Land Transport Safety Authority valuation), totalled \$22.5 billion for the 1990 year (relative to a scenario of no smoking) with the tangible costs alone being \$1.2 billion. Even this latter figure is over 1.8 times the current

annual tax revenue on tobacco of around \$800-850 million during 1997-98.<sup>xi</sup> Tobacco taxation should also address the costs of litter, fire damage, ventilation and cleaning costs attributable to smoking that are imposed on society.

***Enhancing personal autonomy and freedom:*** By reducing the prevalence of smoking by increasing tobacco taxes, the government is enhancing personal autonomy and freedom. This is because dependence on nicotine reduces autonomy with the dependent smoker generally compelled to obtain repeated doses of nicotine throughout their waking hours. Tobacco-related illness also erodes autonomy – especially conditions that damage the brain (eg, strokes) and that restrict mobility (respiratory disease, cardiovascular disease, and limb amputations due to peripheral vascular disease). Premature death from smoking-related disease is the ultimate limitation of personal freedom.

The addictive nature of tobacco amongst New Zealand smokers can be seen from the fact that most of them want to quit – while continuing to smoke.<sup>xii</sup> Similarly, the World Bank notes that about seven out of 10 adult smokers in high-income countries say they regret starting.<sup>xiii</sup> Furthermore, young people and adults appear to underestimate the risks of nicotine addiction.<sup>xiiii</sup> Also many smokers underestimate the risks of smoking relative to other health risks and these risks are often not internalised.<sup>xlv</sup>

The World Bank report notes that modern economic theory holds that consumers are usually the best judges of how to spend their money.<sup>xlv</sup> However, in the case of expenditure on tobacco, the Bank notes that users do not appear to make rational and informed choices in that they appear to misjudge the risks. Also since smoking is usually started in early adolescence, there is the issue of young people lacking the capacity to make sound decisions (this is why society sets a minimum legal age for marriage, voting and the purchase of drugs such as alcohol). Furthermore, the consumer sovereignty principle is eroded because smoking imposes costs on non-smokers.

***Specific economic benefits of smoking reduction:*** Tobacco control has the potential to reduce health sector costs within the short and long-term. Costly chronic diseases and complications prevented by reducing smoking include heart disease, respiratory disease, cancer and delayed wound healing.<sup>xvi</sup> For hospitalised patients, quitting tobacco use reduces general medical costs in the short-term but also reduces the number of future hospitalisations.<sup>xvii</sup> Short-term savings are also realised if smoking in pregnancy is reduced (owing to the lower costs from fewer low birth-weight new-borns and perinatal deaths<sup>xviii</sup>). There are also economic benefits to society from smoking cessation in terms of reducing premature deaths (especially among workers), absenteeism from tobacco-related illness, insurance costs, preventing tobacco-related fire damage, and reduced requirements for ventilation and for cleaning costs.

The World Bank notes that in any given year, smokers' healthcare costs per person will on average exceed non-smokers.<sup>xlix</sup> It also reports that there are recent reviews that suggest that smokers have higher lifetime medical costs despite their shorter lives.

***International evidence for effectiveness:*** International data on the effectiveness of tobacco taxation to reduce tobacco consumption is convincing – including for the prevention of the uptake of smoking by young people.<sup>l</sup> Indeed, the most detailed review on the economics of tobacco control to date concludes that “tax increases are

the single most effective intervention to reduce demand for tobacco".<sup>li</sup> For high-income countries, a price increase of 10% tends to reduce smoking by about 4%.

**New Zealand evidence for effectiveness:** There is strong evidence that tobacco taxes reduce consumption in New Zealand (reviewed in Wilson and Thomson<sup>lii</sup>; and based on the most recent household economic survey data – Thomson et al<sup>liii</sup>). Recent analyses of supermarket cigarette sales data before and after the 1991, 1998 and 2000 budgets show sales reductions of 11%, 10% and 16% respectively (for price increases of 21%, 15% and 23% respectively).<sup>liv</sup> Longer-term supermarket tobacco sales data to August 2000 suggest a 13% fall in supermarket tobacco volumes sold since the May 2000 price rise.<sup>lv</sup>

**Resources for tobacco control:** The World Bank<sup>lvi</sup> notes that tobacco taxes are used to fund tobacco control in several US states and in a large Chinese city, while in other countries these taxes are earmarked to support health services (eg, in the UK<sup>lvii</sup>). The notable reductions in smoking prevalence in states such as California and Massachusetts<sup>lviii</sup> provide evidence favouring the adoption of dedicated tobacco taxes for tobacco control.

**Tobacco exports:** New Zealand tobacco exports have a significant adverse impact on the health of Pacific peoples.<sup>lix</sup> The government should consider imposing substantial export duties on these (or ban tobacco exports altogether).

## Feasibility

The system for tobacco taxation is already in place and so it is administratively simple for the Government to raise it further. Indeed, the level of tax is currently automatically adjusted for inflation on an annual basis.

**Acceptability:** Amongst the public there appears to be widespread acceptability of tobacco taxation. Indeed, there appeared to be virtually no protest by smokers or smokers rights group when the 20% price increase occurred in May 2000 (eg, in terms of letters to the editor etc). The only negative responses that were detected in a cursory review of media coverage during 2000 have included:

- Some criticisms by opposition parties – mainly on the grounds that the government had not announced this particular tax increase before the election. Nevertheless, the previous National/NZ First Government had itself increased the tobacco tax in 1998.
- Tobacco industry spokespeople comments about the 'injustice' for smokers and about how high tobacco prices are 'linked' to crime.
- An event staged by the Libertarian Party of New Zealand where free cigarettes were distributed as a protest against tobacco tax.<sup>lx</sup>

It is likely that at least some smokers favour tobacco tax increases in that higher prices increase their motivation to quit. One US study found that 19% of smokers who wanted to quit felt that higher tobacco taxes would help.<sup>lxi</sup>

There is real public support for key aspects of tobacco control in New Zealand. For example, one New Zealand study<sup>lxii</sup> found that "most people (85.5%) thought public and private areas should be smoke-free when there were children around."

**Arguments against tax increases:** There are a number of arguments used by opponents of tobacco taxes as detailed below:

*Impact on the financial well-being of low-income groups:* This is the most important argument against tobacco taxes. However, the available New Zealand evidence indicates that such potential adverse effects are likely to be small relative to the major health benefits from enhanced quitting, lowering the amount smoked and preventing the uptake of smoking by youth.<sup>lxiii</sup> <sup>lxiv</sup> By quitting smoking, low-income people save directly from not buying tobacco (at least \$3000 per year for a one-pack a day smoker). They also benefit economically from lower medical care costs (for themselves and their children) and reduced risks of losing income from absenteeism due to illness and because of work and non-work accidents. This is because smokers as a group have higher medical costs in any given year<sup>lxv</sup> and higher rates of absenteeism, car accidents and workplace accidents.<sup>lxvi</sup>

Furthermore, it has never been easier for low-income smokers in New Zealand to quit smoking. There is now a free telephone Quitline service that provides support and counselling as well as access to subsidised nicotine replacement therapy for medium to heavy smokers (costing the consumer only \$10 for a four week course). Other treatments of proven effectiveness have also become available in New Zealand during the year 2000 eg, bupropion (Zyban).

The World Bank notes that tobacco taxation is regressive.<sup>lxvii</sup> However it points out that the main concern of policymakers “should be over the distributional impact of the entire tax and expenditure system, and less on particular taxes in isolation.” The Bank also states that “poor consumers are usually more responsive to price increases than rich consumers, so their consumption of cigarettes will fall more sharply following a tax increase, and their relative financial burden may be correspondingly reduced”. Indeed, the Bank reports on two studies from the UK and the US that support the idea of tobacco taxation *increases* being progressive, even though tobacco tax in *itself* is regressive.

*Tobacco taxation as a government revenue source:* It is likely that the current taxation level is near the point at which tobacco taxation revenue for the government is maximised. Therefore future increases in tax (along with other tobacco control measures that have been recently introduced) will eventually erode this source of government revenue. This is not really a significant concern given that there are many other ways the government can increase taxation revenue (eg, higher alcohol taxes, higher gambling taxes, introduction of capital gains and/or asset taxes, re-introduction of inheritance tax and possibly the introduction of carbon user charges).

*Smuggling:* Available evidence suggests that the scale of tobacco smuggling is currently very small in New Zealand. This is probably because Customs are relatively effective and the country is geographically isolated with no land borders. For example during the year 2000 (up to November) Customs reported only three incidents of individuals involved in smuggling (involving an airline passenger and two seamen).<sup>lxviii</sup>

The World Bank considers that “rather than foregoing tax increases, the appropriate response to smuggling is to crack down on criminal activity”.<sup>lxix</sup> It also suggests that the harmonisation in the cigarette tax rates between neighbouring countries will help reduce incentives to smuggle. The Bank has also reported a study that shows that tobacco smuggling is related to the level of corruption in a country. For example, in Sweden, a country with high tobacco prices only around 3% of cigarettes consumed are estimated to be smuggled while in Cambodia the figure is around 36%. This pattern suggests that a country such as New Zealand (with low levels of corruption) is at low risk of smuggling problems.

Of note is that the World Bank suggests that economic theory indicates that at an international level the tobacco industry itself benefits from smuggling.<sup>lxx</sup> This is because smuggling leads to a reduction in the average price (of taxed and untaxed cigarettes) increasing cigarette sales overall.

*Criminal activity in NZ:* The tobacco industry has raised concerns about high taxes prompting crime (burglaries and hold ups).<sup>lxxi</sup> While cigarette theft undoubtedly occurs, it does not necessarily reflect an overall increase in crime (eg, criminals may merely shift their focus from stealing other valuable items of which there are many examples including jewellery and money in banks and shops). The solutions are for shops to reduce their holding stocks of tobacco, to stop stocking tobacco completely or to improve their security systems.

Although some leftover tobacco from the New Zealand crops of the mid-1990s appears to have been sold illegally since this time, there is at present no commercial tobacco grown in New Zealand. Furthermore, it is a fairly implausible illicit crop as unlike cannabis it is hard to grow, requires curing and takes 18 months from planting to produce cured leaf. The troubled history of tobacco growing in many parts of New Zealand highlights these production problems.<sup>lxxii</sup>

*Loss of jobs in tobacco manufacturing and retailing:* This is not a valid argument. Economists have pointed out that re-diverted consumer spending will merely create new jobs in other parts of the economy.<sup>lxxiii</sup>

## Recommendations

- **Increase tobacco taxation:** That government should ensure that tobacco excise tax increases are regular and substantial to deter new smokers and to encourage smokers to quit. (A standard policy could be a twice-yearly increase in tobacco tax at twice the CPI plus 5%. This would ensure that all smokers know that smoking is going to keep getting more expensive and that the substantial price increases happen automatically).
- **Support people to quit smoking:** Price increases in tobacco could be seen to unfairly disadvantage the low-income smoker. Therefore tax increases should ideally be preceded by increased funding for tobacco control, including improved support for people to quit.

## Additional options that are worth consideration

- **Use of tobacco tax revenue:** That government could dedicate the entire tobacco tax revenue to the health sector. This would be likely to increase the public acceptability of tobacco taxation increases.
- **Support for quitting:** Options for supporting quitting include increased mass media campaign resources to promote quitting and the Quitline; introducing full subsidies for the smoking cessation treatments nicotine replacement therapy and bupropion; and considering other services that have proven effectiveness in helping smokers to quit.
- **Public education:** As part of an expanded public education programme on tobacco and health, government could publicise the health and economic benefits of increasing the tobacco tax, funded from the taxation revenue. In particular, it

could take every opportunity to counter any arguments put forward by the tobacco industry and its allies.

- ***Duty-free sales:*** That government could abolish duty-free sales of tobacco at airports and disallow duty-free imports by all those arriving in New Zealand (and work towards changing the international agreements to facilitate such action).
- ***Tobacco exports:*** That government could impose substantial export duties on tobacco exports.

## Appendix 3: Increasing the Level of Alcohol Tax

### Introduction

As for tobacco tax, alcohol taxation has largely been a means for governments to raise revenue. In addition alcohol taxation is actually a premier strategy for reducing the harm associated with alcohol use in society.

### Justification

The key justification for further increases in alcohol taxation is that this is probably the single most effective alcohol control intervention available to government. It is also an intervention that raises revenue that can be used to promote health and fund health services.

**Adverse health impact:** In 1999 the Ministry of Health estimated that the consumption of alcohol led to a net loss of 2557 years of life for females and 9373 years of life lost for males per year (or 593 and 3367 years if discounted at 3% per year).<sup>lxxiv</sup> The model included life lost from alcohol-related conditions and injuries and also the years of life saved from the benefit of low/moderate alcohol consumption in reducing cardiovascular disease. Much of the net loss of life from alcohol use is due to the deaths of young people in road traffic crashes. Other causes of premature death and morbidity associated with alcohol use include cancer (oropharyngeal, oesophageal, liver, laryngeal, breast), injuries (road traffic crash, occupational injuries, suicides, falls, drownings, fire injuries, assaults) mental health (alcohol dependency), heart arrhythmias (supraventricular tachycardia), liver cirrhosis and acute pancreatitis. Even moderate alcohol consumption has been associated with increases in deaths from trauma.<sup>lxxv</sup>

Children in New Zealand continue to have significant rates for mortality and hospitalisation for injuries inflicted by others.<sup>lxxvi</sup> Of possible relevance therefore, is the strong association between alcoholism and domestic violence found in overseas work by O'Farrell and Murphy.<sup>lxxvii</sup> Subsequent work by these authors also found that the frequency of post-treatment drinking among male alcoholics was positively correlated with domestic violence.<sup>lxxviii</sup> Furthermore, among remitted alcoholics, domestic violence was found to decline to the level experienced by other American families. Also behavioural marital therapy for alcoholics has been found to reduce domestic violence<sup>lxxix</sup> and other programmes have reported similar effects.<sup>lxxx</sup>

**Adverse impact on Māori:** The pattern of alcohol use by Māori (as measured by AUDIT scores) is more hazardous than for other New Zealanders.<sup>lxxxii</sup> Furthermore, excessive alcohol use by Māori is a particular concern given the already increased risk of liver disease attributable to high rates of chronic hepatitis B infection among Māori (alcohol and hepatitis B infection may synergistically interact to cause liver disease).

**Adverse impact on other populations:** Recent work in inequalities and health has found significantly higher patterns of hazardous alcohol use (as measured by AUDIT scores) amongst populations which are the most deprived, have lower household income, have a more disadvantaged occupational class, are unemployed, and who live in over-crowded houses.<sup>lxxxii lxxxiii</sup>

**Effectiveness of taxation:** Price is a key factor influencing drinking levels, particularly among young and heavy drinkers – according to New Zealand evidence.<sup>lxxxiv lxxxv lxxxvi</sup> This finding is compatible with the international evidence.<sup>lxxxviii lxxxix xc xcii</sup> While this relationship appears fairly consistent, there are exceptions, with one US study finding that beer taxes have relatively small and statistically insignificant effects on teen drinking at a state level.<sup>xciii</sup>

There is international evidence that alcohol taxes can reduce road traffic injuries and fatalities.<sup>xciv xcvi</sup> One of these studies estimated that maintaining the beer tax at its real 1951 value would have reduced motor vehicle road traffic fatalities in the US by 11.5 percent annually.<sup>xcvii</sup> Similarly, Grossman<sup>xcviii</sup> estimated that a policy to increase the US Federal excise tax on beer in line with the rate of inflation over the preceding three decades would have cut motor vehicle fatalities of 18 to 20 year olds by about 15%. Nevertheless, one US study found no relationships between beer tax or price by US state and traffic fatalities.<sup>xcix</sup> Another study also reported that in the US the relationship between beer tax and traffic fatalities was “not robust across data periods and that it reflects missing variable biases”.<sup>c</sup>

Other work has indicated that high alcohol prices and taxes appear to have beneficial health impacts by reducing college failures,<sup>ci cii</sup> child abuse,<sup>ciii</sup> sexually transmitted diseases,<sup>civ</sup> possibly marijuana consumption,<sup>cv</sup> and possibly tobacco use<sup>cvi</sup>.

A recent paper summarised the research: “This research clearly demonstrates that increases in the monetary prices of alcoholic beverages, which could be achieved by increasing taxes on alcohol, can significantly reduce many of the problems associated with alcohol use and abuse. In addition, control policies that increase other “costs” of drinking, including reduced availability of alcoholic beverages, higher legal drinking ages, and others, are also effective in reducing the consequences of alcohol use and abuse”.<sup>cvi</sup> Also, a recent World Health Organization report considered that alcohol taxation was a “potent tool of prevention policy”.<sup>cviii</sup>

**Costs imposed on society and non-drinkers:** Current taxation levels do not adequately account for the true externalities of alcohol use. For example, one study puts the overall social cost of alcohol use in New Zealand at \$16 billion for a single year.<sup>cix</sup> Yet the government only gathers around \$400 million a year in alcohol excise taxes – of which only a tiny fraction is spent on reducing alcohol problems.<sup>cx</sup> Specific impacts imposed by drinkers on others include: injury to others from vehicle crashes (other drivers, passengers, pedestrians, and cyclists); and injury to victims of assault, rape and homicide. Fetal alcohol syndrome and alcohol-related child abuse can cause life long physical and mental damage. Also alcohol-related crime imposes costs on the whole community. Alcohol use may also promote smoking<sup>cxii</sup> – which also imposes major costs onto others eg, through second-hand smoke and fires.

**Inadequate information about the health risks of alcohol:** Many drinkers probably underestimate the risks of drinking given that information promoted by industry is often unbalanced and lacks detail (indeed, there are no warning labels on alcohol-containing beverages). Few drinkers are likely to know many of the over numerous medical conditions (detailed above) known to be associated with alcohol use and misuse. Phelps<sup>cxii</sup> reports that “survey data suggest that young drivers poorly understand risks of drunk driving, so their deaths may also be an externality”.

Also, a significant percentage of drinkers become dependent on alcohol and therefore suffer a marked loss of personal freedom. High alcohol prices may lower the risk of alcohol dependency in the population.

## Feasibility

The process of increasing alcohol taxation involves very little cost for the government, as the mechanism for taxation is already in operation and is fairly efficient. Indeed, increasing alcohol tax has (in the past) generated substantial additional revenue for New Zealand governments. This is likely to continue to occur with further increases in the tax rate – though the revenue maximising point for alcohol tax in New Zealand has yet to be estimated.

One US study has suggested that tax policy may be more effective than the drinking age policy in reducing youth alcohol use and abuse.<sup>cxiii</sup>

**Acceptability:** Increasing alcohol tax could trigger some opposition by the alcohol industry (as has occurred in the past). Nevertheless, this could be anticipated and countered by better informing the public of the adverse consequences of alcohol on health and society and by dedicating all alcohol tax revenues to the health sector (including a proportion for organisations such as ALAC as currently occurs). This tax should be described as a “user pays” tax since the consumers of alcohol and the alcohol industry should pay (by way of taxes) the costs that alcohol imposes on society and non-drinkers. The benefit of higher alcohol tax on protecting youth from road traffic crashes and facilitating educational achievement could be highlighted in educational campaigns.

At present the rate of excise on beer and wine is less than that for spirits. Treasury<sup>cxiv</sup> has recommended that these rates be standardised to a single rate based on absolute alcohol content.

### **Arguments against higher alcohol taxes:**

*Impact on low-income groups:* A concern is that alcohol taxes may disproportionately impact on low-income groups. However, there is some New Zealand evidence that alcohol taxes are not regressive.<sup>cxv</sup> Nevertheless, increasing alcohol tax would be more acceptable to the public if undertaken at the same time as introducing reductions in income tax for low and middle-income groups. Of note is that the benefits of alcohol tax on health and welfare may be particularly realised by low-income groups (since these groups have the most hazardous drinking patterns - as measured by AUDIT scores in the NZ setting).

*Home production:* Another argument relates to higher taxes just encouraging home alcohol production. This is likely to occur to a small extent but currently home production is at a fairly modest level (estimated at around 3%<sup>cxvi</sup>) and is quite legal. However, at some point the illegal sale of such alcohol might need to be more closely monitored to ensure that this did not significantly erode the health benefits of higher taxes.

*Job losses:* Loss of jobs in the alcohol manufacturing and retailing sector from higher taxes is another argument against alcohol taxes. However, this is a weak argument because the diverted consumer spending would merely create new jobs in other parts of the economy (and even in the same retailing sector if expenditure on food in cafes and restaurants increased). Indeed, a reduction in the health damage and premature death attributable to alcohol would have benefits to the whole economy. Also, a substantial proportion of New Zealand wine is now exported and this product would not be subjected to excise tax (though this might be appropriate for exports to developing countries with inadequate alcohol controls).

## Recommendation

**Increasing alcohol tax:** That government should increase alcohol excise taxes. This would more fully deal with the externalities of alcohol misuse imposed on society, reduce the level of consumption (especially harmful consumption and consumption by youth), and allow a reduction in income taxes on low and middle-income New Zealanders (to reduce inequality in New Zealand society).

### Other possible areas for potential reform:

- **Use of alcohol tax revenue:** Government could dedicate the entire alcohol tax revenue to the public health sector. This would substantially increase the acceptability of alcohol taxation increases. Also, a larger proportion of the taxation revenue from alcohol could ideally be used to enhance other aspects of alcohol control that are of proven effectiveness.
- **Public education:** Government could do more to educate the public concerning the health and economic benefits of increasing alcohol tax (with such education funded from the alcohol tax revenue). In particular, it could take every opportunity to counter any spurious arguments put forward against alcohol tax.
- **Excise ratings:** Government could ensure that the rate of excise on beer and wine be brought up to the same rates as for spirits, so as to be a single rate based on absolute alcohol content (as recommended by Treasury<sup>cxvii</sup>).
- **Continue current inflation indexing:** Government should probably continue to index excise tax levels against inflation.
- **Advertising:** Government could remove the tax deductibility of the advertising and sponsorship of alcohol containing beverages.
- **Duty-free sales:** Government could abolish duty-free sales of alcohol at airports and disallow duty-free imports by all those arriving in New Zealand.
- **Alcohol exports:** Government could impose duties on alcohol exported to those developing countries with inadequate alcohol control policies (eg, some Pacific Island Countries).

## Appendix 4: Increasing Gambling Tax

### Introduction

Many developed countries (including New Zealand) impose various taxes on gambling to increase revenue. Such taxes can also be considered as a policy instrument to reduce the adverse impacts of gambling by reducing the scale of gambling activities and its attractiveness (ie, by making it less profitable to both providers and punters).

A national prevalence survey of pathological gambling has been conducted in New Zealand.<sup>cxviii</sup> Of the sample of 4053 people, “2.7% (+/- 0.5%) scored as probable pathological gamblers and a further 4.2% (+/- 0.6%) scored as problem gamblers”. “Ethnicity, age, gender, employment status, having a parent who had gambling problems and regular participation in continuous forms of gambling were major risk factors”. “In New Zealand pathological gambling appears to have a lifetime prevalence approximately half that of drug abuse/dependence. The findings “suggest that prevalence has increased in recent years”.

### Justification

***Gambling and health:*** A recent Cochrane systematic review<sup>cxix</sup> has noted that “with the legalization of new forms of gambling there are increasing numbers of individuals who appear to have gambling related problems and who are seeking help.” It reported that “pathological gambling can result in the gambler jeopardizing or losing a significant relationship or job and committing criminal offences”. “Pathological gamblers may develop general medical conditions associated with stress. Increased rates have been reported for mood disorders, attention-deficit/ hyperactivity disorder, substance abuse or dependence. There is a high risk of suicide and a high correlation with antisocial, narcissistic and borderline personality disorders and alcohol addiction”.

A narrative review<sup>cxx</sup> reported that social gamblers spend 5% of their money on gambling and pathological gamblers 14 to 45%. Another narrative review<sup>cxxi</sup> reported that “for most gamblers, gambling is a form of entertainment, but for many individuals, the activity leads to far-reaching disruption of family and work. The personal and societal financial ramifications are severe, and many individuals with pathological gambling end up in the criminal justice system.”

A review of gambling in Canada from a public health perspective<sup>cxii</sup> reported that: “the major public health issues include gambling addiction, family dysfunction and gambling by youth”. “Stakeholder and social policy groups have expressed concern about the impact of expanded gambling on the quality of life of individuals, families and communities”. The author reported that epidemiological studies showed that the prevalence of gambling was increasing and “of particular concern is the high though steady prevalence of gambling among youth”. “New technologies have been linked to gambling-related problems such as addiction to gambling by video lottery terminals. Gambling by means of the Internet represents another emerging issue”.

An additional health issue is that gambling activities are fairly sedentary when compared to other popular recreational pursuits (eg, gardening, sports, walking, cycling). For example, watching races and lotto on television, sitting at casinos,

standing in front of gaming machines etc are all fairly sedentary. This suggests that gambling activities may be generally contributing to physical inactivity and obesity – both of which are major public health concerns in New Zealand today.

**Gambling and suicide risk:** The link between gambling and increased suicide rates has been suggested in small-scale case studies but remains inconclusive. Of note however, is one study that found that “Las Vegas, the premier US gambling setting, displays the highest levels of suicide in the nation, both for residents of Las Vegas and for visitors to that setting”.<sup>cxviii</sup> Similarly, in another major gambling setting, Atlantic City, “abnormally high suicide levels for visitors and residents appeared only after gambling casinos were opened”. “The findings do not seem to result merely because gaming settings attract suicidal individuals.”

A New Zealand study on the national toll-free telephone hotline<sup>cxvii</sup> found that “suicidal ideation was reported by over 90% of pathological gambler callers”. The author’s noted that the “high reported suicidal ideation was consistent with previous studies showing elevated rates of stress and depression among pathological gamblers”.

**Social impact of gambling:** As discussed above gambling can have direct adverse impacts on families with this impact likely to be particularly severe for low-income families that are already experiencing financial hardship. Furthermore, gambling may even promote fatalistic worldviews and erode the work ethic by promoting the idea of “winning money without working for it”. Many gambling activities are also solitary, so gambling may contribute little to marital and family relationship development relative to other recreations. Also, compared to many other recreational pursuits, gambling does not generally enhance life skills in important ways and is does not contribute to New Zealand becoming a knowledge economy.

**Equity concerns:** Problem and pathological gamblers in New Zealand are likely to be male, under 30, not Pakeha, not married and unemployed.<sup>cxv</sup> These are groups of people who already experience poorer health status than the rest of the population, and problem gambling intensifies these differences. Other groups vulnerable to gambling problems are the psychiatrically disabled, the intellectually disabled, and the elderly.

**Evidence of effectiveness for tax as an intervention:** It has been suggested that problems with gambling seem to increase as overall levels of gambling in society increase. This is supported by state comparisons from the US.<sup>cxvi</sup> Given this likely relationship, Chetwynd<sup>cxvii</sup> has suggested that “prevention policies aimed at reducing the overall levels of gambling in society will result in a reduction in the numbers of gambling-related problems.” Higher taxation of gambling is one such possible prevention policy.

A search of published literature revealed no direct studies on the relationship with gambling taxes and the extent of gambling in populations. Nevertheless, a reasonable theoretical case can be made that raising gambling taxes would tend to reduce overall gambling behaviour - given economic studies on other commodities and services. The World Bank<sup>cxviii</sup> has noted “that a basic law of economics states that as the price of a commodity rises, the quantity demanded of that product will fall”. Examples of where increasing taxes or otherwise altering prices has resulted in changes to consumer behaviour are plentiful and include the following:

- *Tobacco*: The most detailed review on the economics of tobacco control to date, concluded that “tax increases are the single most effective intervention to reduce demand for tobacco”<sup>cxxxix</sup> (see also the appendix on tobacco taxation).
- *Alcohol*: Price is a key factor influencing drinking levels, particularly among young and heavy drinkers (see the appendix on alcohol taxes).
- *Food*: US studies show how pricing strategies can promote the purchase of fruit and vegetables<sup>cxxx</sup> and low-fat snacks<sup>cxxxi</sup> relative to less healthy food choices. A study in China has shown that price changes for animal foods have been found to reduce fat intake.<sup>cxxxii</sup>
- *Leaded petrol*: User charges have been effective in reducing the purchase of leaded petrol (eg, in Denmark<sup>cxxxiii</sup>).
- *Energy and other user charges*: Carbon user charges have lowered carbon dioxide emissions in Norway and similar user charges elsewhere have reduced sulphur oxide emissions (Sweden) and ozone-depleting gases (United States), toxic waste (Germany), and water pollution (Netherlands).<sup>cxxxiv</sup> In Italy the tax on plastic bags has been reported to have halved their use.<sup>cxxxv</sup>

This international experience would suggest that increasing prices of a product or service (such as gambling) would reduce demand for it. As such, higher gambling taxes would be expected to reduce the spread of new gambling outlets and lower the economic rewards of gambling to both the vendor and the punter. Nevertheless, further research in the New Zealand setting is ideally required so as to evaluate more precisely the impact on gambling of any increase in gambling tax.

**Cost-effectiveness:** The process of increasing gambling taxation involves very little cost for the government, as the mechanism for taxation is already in place. Indeed, increasing gambling tax would generate substantial additional revenue for the New Zealand Government (in 1997 gaming duties were \$129 million<sup>cxxxvi</sup>). This “transfer payment” from citizens to government would allow the government to increase social spending (eg, in the health sector) or to reduce other taxes (eg, income tax for low and middle-income groups). In addition, given the adverse impact of gambling on health, family welfare and society (including crime and job losses among problem gamblers) it is likely that reductions in overall levels of gambling (as a result of higher gambling taxes) could be cost saving to society. However, no modelling of the societal costs and benefits of gambling has been done for New Zealand.

## Feasibility

A higher level of tax on gambling would seem fairly feasible in New Zealand since the current tax take on this industry is relatively modest relative to some other OECD countries. For example, the current government taxation on totalisator turnover is at the rate of 5.5 percent of gross on-course and off-course investments for each day of a race meeting conducted by a totalisator club.<sup>cxxxvii</sup> Increasing gambling tax could trigger some opposition by the gaming industry (covering casinos, sport betting, racing, and hotels and clubs that gain revenue from gaming machines). Some commercial interests would be likely to argue the employment benefits of the gambling industry. However, the counter argument is that higher gambling taxes would merely displace consumer spending to other sectors of the economy and hence generate employment elsewhere.

The government could gain support for increasing these taxes by better informing the public of the adverse consequences of gambling on health and society and by dedicating all gambling tax revenues to the health sector (including a proportion for

treating gambling problems as currently occurs). Information on the extent to which gambling taxes in the New Zealand setting might be progressive or regressive would help inform the debate. Some US data indicates that taxes on casino gambling<sup>cxxxviii</sup> and lotteries<sup>cxxxix</sup> are regressive. This would suggest the desirability of accompanying increases in gambling tax with other changes to make the overall taxation system more progressive.

## Recommendation

Gambling tax should be used to fund problem gambling prevention and treatment services. Further research is needed on the appropriate level of gambling tax before government considers replacing gambling tax with higher levels of GST.

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