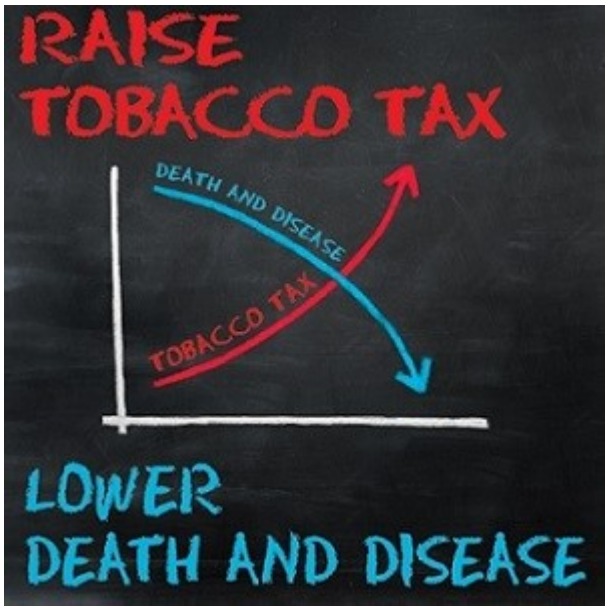

A public health perspective on taxing harmful products

15 April 2018

Nick Wilson, Tony Blakely, Amanda Jones, Linda Cobiac , Nhung Nghiem, Anja Mizdrak, Cristina Cleghorn

The New Zealand Government has set up a Tax Working Group to consider reforms of the tax system. In this blog we briefly discuss some of the opportunities for tax reform that will potentially improve health and lower health costs, reduce health inequalities and enhance environmental sustainability.

Regular reviews of the tax system are important given that taxation has a large impact on human well-being, the economy and the environment. In the past, NZ has been smart from a health perspective in using taxes to ensure relatively high tobacco prices to reduce this important risk factor (NZ is one of the world leaders in terms of high tobacco prices). But in other ways NZ Governments have acted sub-optimally eg, this country's carbon pricing mechanism has been widely criticised [1-4], and compares poorly to a well-designed carbon tax. Yet as a small and relatively non-corrupt country [5], NZ is well placed for enacting reforms in the direction of a better tax system. Such a tax system should balance efficiency, incentivising innovation and rewarding effort, and also work as an instrument to improve health, increase social cohesion and reduce inequalities where possible. In this blog we just focus on health-related taxes and their potential impact on health and health inequalities.

Rationale for taxes on products that harm health

The first justification for taxes is that civil society, through government, needs to raise revenue to fund government programmes and infrastructure (from education to roading). Those taxes may be placed on income, assets/land, and general goods and services (ie, GST). However, some potential targets for taxation have the extra justification of "negative externalities". That is, additional taxes may be warranted where consumption of a good places additional (often future) costs on society that are not covered in the sales price or by the seller of the product. For example, alcohol imposes additional costs to the health system that taxpayers have to fund and it causes direct harm to others (eg, via alcohol-related vehicle crashes that kill others). Alcohol taxation therefore helps to address these "negative externalities" by better aligning the consumer price with the true social cost of the product.

However, another principle (we call it the "tax as a tool" principle) can also be relevant, such as when a government uses tax as an instrument to achieve a societal goal. NZ did this when a differential tax was used to help phase-out leaded petrol in NZ in the 1990s. Tobacco taxes in NZ have also recently been used in this way to achieve a Smokefree NZ by 2025 (a government goal [6] and one with majority public support [7]). The government is effectively saying that they consider the "tool of tax increases" is more effective and cost-effective than some other possible interventions (eg, more investment in mass media campaigns to reduce smoking). This approach is argued for internationally eg, "taxes are an underused instrument for the prevention of premature death and disease…" [8].

From both the negative externalities and "tax as a tool" principles, many other products warrant consideration for tax over and above any blanket GST type tax, including those already with special excise taxes in NZ (alcohol, tobacco) and those not yet taxed (eg, sugary drinks that harm health).

Carbon tax to protect planetary health

Climate change is a major threat to the planet and even an existential threat to human civilisation. Climate change is also a threat to health and therefore carbon taxes are in scope from a health perspective. NZ, as a rich country, is far from playing an adequate role in responding to this major threat. In particular, NZ's current pricing system for carbon NZ (an Emissions Trading Scheme [ETS]) has numerous design problems including its strange hybrid structure and exclusion of the important agricultural sector [1-4]. As such it urgently needs major reform, possibly by replacing it entirely with a carbon tax (an issue for the new Climate Commission to consider, as well as the Tax Working Group). If a carbon tax was adopted, then consideration could be given to fully recycling the carbon charges to the community. Eg, the province of British Columbia in Canada adopted this approach by returning all tax revenue to BC's taxpayers and businesses through tax cuts [9]. This revenue-neutral approach is one reason for the majority public support of this tax (ie, it "now funds more than a billion dollars a year in other tax cuts" [9]). Revenue from a carbon tax could also be used for promoting lower carbon lifestyles (eg, better walkways and cycle-ways for commuting) and promoting carbon sequestration (eg, better incentives for allowing native forest regeneration).

Tobacco tax

As recently summarised: "tobacco tax increases are the most effective and inexpensive way of reducing tobacco smoking prevalence, consumption, initiation and inequalities in

smoking" [10]. In NZ, tobacco tax can be justified in terms of both the negative externalities from smoking and for the "tax as tool" principle to achieve a societal goal (see above). During NZ's recent period of regular tax increases, smoking prevalence has further declined along with tobacco sales (see here: [11] and this graph of declining sales data: [12]), albeit other tobacco control interventions will also have played a role.

Further increases in tobacco tax are also very likely to produce further health gain, reduce health inequalities and generate cost-savings for the NZ health system (see these NZ studies: [13-16]). High tobacco prices will also encourage those who can't easily quit nicotine to switch to vaping (e-cigarette use), which is likely to be much less hazardous to health than tobacco smoking [17]. For this reason it is important that the government does not place an excise tax on e-cigarettes at this stage – so that the current large price differential strongly encourages smokers to switch to vaping if they don't quit. We address the financial hardship and illicit market issues around high tobacco prices in the Appendix below.

Alcohol tax

Drinking alcohol is a popular activity in NZ with around four out of five adults choosing to drink alcohol on at least one occasion during the year [18]. However, hazardous patterns of drinking are having a major impact on our health and society. In the short-term, alcohol is associated with increased rates of injury and criminal offending [19, 20]. Longer-term alcohol consumption increases risk of chronic diseases, such as liver cirrhosis, cancer and alcohol dependence [21]. While there is some evidence that low-level drinking may have a protective effect against non-fatal heart attacks [22], the risk for other cardiovascular diseases (eg, stroke) is increased [22], and the total net harm to health is increased above 100 grams of alcohol per week [23]. Indeed, there is six months life expectancy loss estimated for consumption at only >100 to ≤200 g of alcohol per week [22], or 10 to 20 standard drinks per week in NZ. In addition to harms for the drinker, various NZ studies show how important *harm to others* from alcohol in this country [24-26]. Some of the worst examples are where alcohol is a component of road traffic deaths involving others, violent crime against others, and lifetime harm to others via fetal alcohol spectrum disorder and child neglect. The total health harm from alcohol use makes it the fifth most important risk factor (albeit with other drugs) for health loss in NZ [27]. As such, alcohol use is a major contributor to health costs, to lost productivity for NZ businesses (and therefore tax revenue to the government) and to financial costs to society associated with crime, including property damage, police and court time, and incarceration. All these problems help justify relatively high alcohol taxes on negative externality grounds.

Raising the tax on alcohol would provide a price incentive to reduce consumption, and therefore reduce the harm and associated health and societal costs. Increasing alcohol tax has been widely recommended by health experts in NZ and also in a thorough Law Commission Report [28]. Increasing alcohol tax is very likely to produce health gain, particularly by reducing injuries (see these 2 systematic reviews: [29, 30]). Higher alcohol taxes are also likely to save health system costs eg, according to Australian modelling work [31]. There is also scope to more closely align the level of tax to the alcohol content of beverages rather than to the type of drink (eg, for wine). This could help to simplify the current tax structure, reduce administrative burden, and align the taxation regime with public health.

Alcohol tax does not appear to be regressive in the NZ setting (albeit based on relatively old data [32]) and it may actually be a progressive policy if it particularly helps prevent

hazardous drinking in those NZ in deprived areas. This is because “adult drinkers in the most deprived areas were 1.7 times more likely to be hazardous drinkers than adult drinkers in the least deprived areas, after adjusting for age, sex and ethnic differences” [33].

In NZ, a very small proportion of alcohol tax goes to the Health Promotion Agency for alcohol-related health promotion. But this level of earmarked tax revenue should be increased to help address substantive knowledge deficits among NZ citizens (eg, the warning information on alcoholic beverages is severely limited and it seems few NZ adults understand that alcohol is associated with increased cancer risk or how alcohol contributes to excessive calorie intake).

A UK style “soft drink industry levy”

To address the epidemics of obesity and diabetes, there are a growing number of countries and American cities that are adopting taxes on sugary drinks [34]. From some of these settings there is supportive evaluation data showing the effectiveness of these taxes (eg, for Mexico [35, 36], Berkeley California [37-39] and Philadelphia, USA [40]). There are also real world studies providing evidence for health benefits from such taxes (eg, for health-favouring associations for BMI/obesity [41-43] and for reduced cardiovascular disease [44]).

The research evidence in favour of sugary drink taxes grows increasingly stronger, and supports calls for NZ to implement such a tax. Possibly of most relevance to NZ is the UK “soft drink industry levy” which appears to have resulted in a reported 10% reduction in the average sugar content of energy drinks in the UK – prior to the levy even coming into force [45]. One of us (TB) has published on this UK levy [46], and it is probably the best designed one in current use given its impact on encouraging product reformulation to reduce sugar levels as well as delivering price signals to consumers [47].

There appears to be majority public support for a sugary drinks tax in NZ according to a 2015 survey [48], as has been reported in other jurisdictions [49-51]. It is likely that additional public support would be further strengthened if revenue from a sugary drinks tax was used as per the UK levy to fund sport facilities at schools [52]. Alternatives might be to fund an expansion of NZ’s “fruit in schools” programme to all schools, provide healthy school lunches, or to fund school dental services.

Other potential health-justified taxes

Mexico has a “junk food” tax which appears to be working [53, 54] and some European countries tax salty products [55]. Favourable results are also reported in modelling studies of a potential salt tax in NZ [56], a salt tax in the USA [57], and a range of food taxes modelled for Australia (on saturated fat, salt, sugar, and sugar-sweetened beverages) [58]. We expect that these types of taxes on such foods and key ingredients will have merit at some point in the future for NZ. But a detailed discussion of these taxes may be premature until a UK style “soft drinks industry levy” is introduced to NZ and evaluated. The latter should probably be the first food/drink tax in NZ since it has: (i) the strongest evidence base; (ii) is focused on protecting children (from dental decay, obesity and diabetes in adolescence); (iii) is on a product with zero nutritional value; and (iv) the levy can be targeted at the industry, thereby promoting reformulation as in the UK.

We lack the space to discuss other taxes in detail here, but there is also probably a case for the Tax Review Group to consider the following taxes that relate to some aspect of

protecting health: higher gambling taxes, taxes on the advertising of junk food/sugary drinks advertising, taxes on fertiliser (to reduce nitrogen pollution of waterways), and taxes on pesticides (to reduce non-essential usage). But in some cases we acknowledge that regulation (or a mix of regulation and tax) may be more optimal than using pricing instruments. The Tax Working Group, should also recommend to Government the inclusion of a health impact evaluation on all aspects of tax reform (including equity impact evaluation) of any tax proposals.

How selected taxes could actually reduce the total tax level required (by saving health costs)

Finally, we note that the health sector accounts for $15.6 billion of government expenditure (the second largest expenditure source after Social Security and Welfare). Using the tax system to prevent disease has the potential to reduce the tax take needed to maintain current provision of services, or to provide additional government services within the existing revenue collected. For example, our modelling work shows that a strategy of future tobacco tax increases would save NZ$ 1.1 billion in future health system costs (over the lifetimes of New Zealanders alive in 2011) [15] – in addition to the additional tax revenue raised [13]. Similarly, a salt tax could save NZ$ 1.0 billion in health system costs (as well as raising $452 million in revenue per year) [56].

Conclusions

In this blog we briefly discuss some of the opportunities for taxing harmful products which will potentially protect health and lower health costs, reduce health inequalities and enhance environmental sustainability. Although New Zealand has taken this approach historically (eg, taxes on tobacco and alcohol), there remains substantial scope for improvements in these areas along with new taxes (eg, a carbon tax and a soft drink industry levy).

Appendix: Extra notes on tobacco tax issues (illicit market and financial harm)

A small risk from high tobacco prices is the potential growth of the illegal tobacco market. However, existing NZ research is reassuring that this is a minor issue [59] and will probably remain so even with higher prices [13]. There has also been recent media coverage of dairy robberies for tobacco. However, this robbery problem can be dealt with by:

- Prohibiting tobacco sales from outlets such as dairies and petrol stations (possibly by restricting sales to venues such as supermarkets, which haven't had such robbery problems, or to pharmacies [60] that have far better security).
- Phasing down the number of all tobacco outlets in the country, as per the tobacco control strategy details in these NZ studies: [15, 61, 62].

Policy-makers may also be concerned about the financial harm for smokers who don't respond to tobacco tax increases. However, there is modelling evidence that such financial harm to health is small relative to the high level of harm from smoking [63]. Also there are studies showing that tobacco tax increases are likely to be a pro-health equity strategy in NZ, ie, greater per capita health gains for Māori [14, 15]. But there is also a very strong case for more tobacco tax revenue to go for quitting support and other tobacco control measures to help low-income smokers (as argued in a recent Action Plan [64] on reaching

the Smokefree 2025 goal and elsewhere [65]). Indeed, NZ smokers themselves have voiced support for tobacco tax increases – if some of the tax revenue is dedicated to helping them quit [66]. Other measures to reduce the risk of financial harm to low-income smokers who don't quit, or who don't shift to vaping, include welfare reform to increase financial support for low-income New Zealanders.

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