

# Tax reform pros & cons: A brief look from a Public Health perspective

8 February 2016

Nick Wilson, Caroline Shaw, Nhung Nghiem, Tony Blakely, Ralph Chapman

*Prof Nick Wilson, Dr Caroline Shaw, Dr Nhung Nghiem, Prof Tony Blakely, A/Prof Ralph Chapman*

Tax policies have major impacts on society and designing such policies is complex. But if the perspective is around gaining health and saving costs for the public health system, then certain tax reforms may be favoured more than others. In this blog we take a brief look at what potential there is for revising the NZ tax system from a public health perspective.



Many factors determine the design of tax policies in developed countries. These include perspectives concerning the level of government spending, how important goals such as health, well-being or the state of the environment really are, the extent to which the system should be redistributive (i.e., with the wealthiest people who can afford it paying relatively more tax), and administrative costs. Health considerations clearly matter to some extent and have been used to help justify some tax policy in NZ e.g., for excise taxes on tobacco, alcohol, and gambling. Indeed, NZ is one of the world leaders in tobacco tax policy – with a recent series of annual increases (see this blog). Historically, tax was also one of the strategies used in NZ’s phase-out of leaded petrol, partly driven by the health risks around this toxic heavy metal.

## **What scope for tax reform to achieve further health?**

There is a growing international evidence base around the impacts of health-related taxes and growing calls internationally for additional taxes to be used to address health problems. Similarly for using taxes to lower carbon emissions to reduce the threat of climate disruption (which has major and increasing impacts on health).

So how could further tax reform contribute to health gains in NZ? In this blog we look at some key taxes that impact on health – both directly and indirectly. The Table in the Appendix below summarises our initial thoughts on the pros and cons of various selected tax reforms. Collectively a package of such tax reforms could result in the same level of government tax revenue overall e.g., with reductions in income tax and/or GST being offset by increases in taxes on pollutants and hazardous products e.g., carbon emissions, tobacco and alcohol. This revenue-neutral approach has worked well recently with the carbon tax in British Columbia, Canada. One reason for the majority public support of this tax is that it “now funds more than a billion dollars a year in other tax cuts” (1).

For some of the issues in our table we lack detailed data, so there is often substantive uncertainty about the feasibility of the tax reform and the risks of adverse impacts. For example, a “junk food” tax might result in industry and consumers adding more salt and sugar to those non-taxed basic foods (and so reducing the health benefits of the tax). Such uncertainty can sometimes be reduced by further searches for international data and/or conducting modelling exercises. A very cautious government would also possibly focus more on adjusting taxes that are already in place (e.g., raising tobacco or alcohol tax), as opposed to introducing completely new ones (e.g., a tax on sugar-sweetened beverages [SSBs]).

## **What might be the research priorities for tax reform?**

Firstly – what might be politically feasible revenue-neutral packages of tax reforms? For example, a package of lowering income tax for low- and middle-income New Zealanders, but balanced with raising taxes on carbon, tobacco, and alcohol? Or adding into this package a tax on SSBs and a tax on junk food (as introduced in Mexico)? Some careful modelling work would be needed to determine the likely revenue stream implications – or perhaps the need for ongoing annual adjustments for a number of years to ensure any “revenue-neutral” goal is achieved.

Secondly – further explore the potential for health gain and health system cost savings. This could build on the NZ modelling work done to date e.g., on tobacco tax (2, 3), taxing salt or high salt foods (4, 5), and taxing SSBs (6). Modelling could also be used to explore how subsidies for fruit and vegetables might be used to offset a tax on junk food (but there are various counter-arguments to such subsidies e.g., system complexity, and that retailers might not pass on the price reduction to consumers).

Thirdly – it may help to further research public support/opposition to tax reform. This could expand on former work that shows there is support for tobacco tax in NZ by smokers (if some of the tax revenue is dedicated to helping smokers quit (7)), majority support for a SSB tax in NZ in a 2015 survey (8), and support for SSB taxes in other jurisdictions (9, 10, 11). The revenue-neutral carbon tax in British Columbia (mentioned above), also has majority public support (1).

## **Conclusions**

Tax policy is complex and needs careful analysis. Nevertheless, we suspect that there is scope for tax reform in New Zealand – to maximise improvements in health and also to reduce costs for the publicly-funded health system. Better understanding of the international literature and use of NZ modelling studies may generate further advice for policy-makers in this country. Such research could focus on revenue-neutral packages that include key health-related taxes.

## Appendix: Potential tax reforms for New Zealand, with pros and cons from a public health perspective

Potential tax reform component	Possible pros for health	Possible cons for health	Other issues and opportunities
<b>Reduced taxes?</b>			
Income tax – reduction for low and middle-income New Zealanders	Desirable for reducing inequalities in income (and therefore benefiting health to some extent).	Nil apparent.	Such reductions would allow scope for introducing higher taxes on harmful products (see below).  With lower income tax rates, some people might be generally motivated to work harder.
GST – reduction if there is a proper carbon tax introduced	As GST is a somewhat regressive tax [12], reducing it has some potential benefit for reducing inequalities.	Nil apparent.	Lower GST could be a way to offset some of the financial impacts of other tax reforms (see below).
Business income – reduction for producers of renewable energy	Lowering business income tax (company tax) for producers of solar, wind, and hydro power may be desirable if a proper carbon tax is not put in place. This may encourage the shift to less polluting energy sources (both local air pollution and lower greenhouse gases).	Nil apparent.	These reforms could assist with NZ meeting its climate change commitments – which ultimately will benefit international health. Nevertheless, such reductions would not be as efficient as just having an adequate carbon tax. Also regulatory reform of the energy market is a possible alternative or associated measure.
<b>Increased taxes?</b>			
Replace the current Emissions Trading System (ETS) with a meaningful carbon tax (for climate change response – which has many health aspects)	The current ETS in NZ has many design problems [13] [14] [15] [16], and a carbon tax would be a fresh approach that might be less subject to gaming by industry and politicians. It is likely that a meaningful carbon tax would have multiple positive health outcomes (via reduced air pollution, facilitating a shift to active transport by commuters, and beneficial dietary changes).	High carbon charges are likely to increase travel costs for people who don't have public transport access (eg, higher costs for health care access).	There is likely to be industry opposition to a carbon tax – unless balanced by reductions in business income tax. A carbon tax would also help NZ to efficiently meet its international climate change commitments.  A carbon tax is likely to be a mildly regressive tax for NZ households given how emissions are associated with income. However, high-income households are also responsible for the bulk of consumption emissions, especially in air travel [17]. These factors suggest a carbon tax accompanied by a personal income tax or GST reduction, may be a progressive tax package overall.
Increase alcohol taxes	Very likely to produce health gain, particularly by reducing injuries (see these 2 systematic reviews: [18] [19]). Also likely to save health system costs [20].	There are small risks associated with expansion of the home-brewing and illegal alcohol sales market.	There would be some lost value to individuals who have a preference for cheap alcohol – but this would need to be balanced with the harm to others from alcohol use and misuse (an important concern in NZ [21-23]). Alcohol tax does not appear to be regressive in the NZ setting [24].
Increase tobacco taxes	Very likely to produce health gain, reduce health inequalities and reduce health costs in NZ (see this NZ study [2] and a PHE Blog). A strategy of ongoing tobacco tax increases could help [25] the Government to achieve its Smokefree Nation 2025 goal [26].	There are small risks associated with growth of the illegal tobacco market – but existing NZ work is reassuring about this issue [25] [27].	For those who don't quit or reduce consumption – there are risks of increased financial pressure (eg, if counterbalancing tax reductions are not made as per reduced income tax discussed above (see also this PHE Blog)).

Potential tax reform component	Possible pros for health	Possible cons for health	Other issues and opportunities
Introduce taxes on sugar-sweetened beverages (SSBs), as per Mexico, France, etc	There is some evidence that such a tax would reduce SSB consumption. Eg, see these peer-reviewed journal articles on the Mexico experience to date on increased prices [28], on estimated price elasticities [29], and changes in beverage purchasing for SSBs and beverage alternatives [30]. Production data for Mexico (reduced for soft drinks and increased for bottled water [31]) is also favourable. Experimental work also indicates likely benefits [32] and NZ modelling work is suggestive of health benefits [6].	None obvious (health perspective).	There is likely to be industry opposition, but this may be partly ameliorated if the tax is not applied to beverages with no sugar (eg, diet soft drinks). Any public concern could potentially be reduced if some of the revenue went to fund an expansion of the fruit in schools programme or to fund school dental health services.
Introduce taxes on junk food (as per Mexico)	Standard economic theory would suggest a reduction in sales and consumption – with potential for preventing chronic disease (but there is considerable uncertainty here – see this blog). NZ modelling studies that consider taxing salt or taxing high sodium foods give some idea of the potential health gain [4] [5].	There is uncertainty about the scale of potentially harmful substitution actions by the food industry and consumers (eg, adding more sugar and salt to untaxed “non-junk” foods).	There is likely to be industry opposition. There may also be some administrative complexity (though note that NZ taxes alcoholic beverages, despite a huge diversity of alcohol-containing products).
Increase gambling taxes	Likely to benefit mental health (and also reduce non-health harms from crime and corruption associated with gambling).	None obvious (health perspective).	There is likely to be industry opposition.
Many other possibilities exist*	Not discussed here.	Not discussed here.	Not discussed here.

\* Eg, some countries tax salty products (33) a potential salt tax has been modelled for NZ (5) and the USA (34), and a saturated fat tax has been modelled for NZ (4). Such taxes also have pros and cons – but a more general “junk food” tax may increase the likelihood of net health gain by reducing adverse substitution effects (eg, a salt tax on its own might result in industry and citizens adding more sugar to processed foods).

## References

- Demerse C: Proof Positive The Mechanics and Impacts of British Columbia’s Carbon Tax. Clean Energy Canada, 2014. <http://cleanenergycanada.org/wp-content/uploads/2014/12/Carbon-Tax-Fact-Sheet.pdf>.
- Blakely T, Cobiac LJ, Cleghorn CL, Pearson AL, van der Deen FS, Kvizhinadze G, Nghiem N, McLeod M, Wilson N: Health, health inequality, and cost impacts of annual increases in tobacco tax: Multistate life table modeling in New Zealand. *PLoS Med* 2015, 12(7):e1001856.
- Cobiac LJ, Ikeda T, Nghiem N, Blakely T, Wilson N: Modelling the implications of regular increases in tobacco taxation in the tobacco endgame. *Tob Control* 2014, [E-publication 21 August].
- Ni Mhurchu C, Eyles H, Genc M, Scarborough P, Rayner M, Mizdrak A, Nnoaham K, Blakely T: Effects of health-related food taxes and subsidies on mortality from diet-related disease in New Zealand: An econometric-epidemiologic modelling study. *PLoS One* 2015, 10(7):e0128477.
- Nghiem N, Blakely T, Cobiac LJ, Pearson AL, Wilson N: Health and economic impacts of eight different dietary salt reduction interventions. *PLoS One* 2015, 10(4):e0123915.
- Ni Mhurchu C, Eyles H, Genc M, Blakely T: Twenty percent tax on fizzy drinks could save lives and generate millions in revenue for health programmes in New Zealand. *N*

Z Med J 2014, 127(1389):92-95.

7. Wilson N, Weerasekera D, Edwards R, Thomson G, Devlin M, Gifford H: Characteristics of smoker support for increasing a dedicated tobacco tax: national survey data from New Zealand. *Nicotine Tob Res* 2010, 12(2):168-173.
8. Sundborn G, Thornley S, Lang B, Beaglehole R: New Zealand's growing thirst for a sugar-sweetened beverage tax. *N Z Med J* 2015, 128(1422):80-82.
9. Moretto N, Kendall E, Whitty J, Byrnes J, Hills AP, Gordon L, Turkstra E, Scuffham P, Comans T: Yes, the government should tax soft drinks: findings from a citizens' jury in Australia. *Int J Environ Res Public Health* 2014, 11(3):2456-2471.
10. Donaldson EA, Cohen JE, Rutkow L, Villanti AC, Kanarek NF, Barry CL: Public support for a sugar-sweetened beverage tax and pro-tax messages in a Mid-Atlantic US state. *Public Health Nutr* 2015, 18(12):2263-2273.
11. Simon PA, Chiang C, Lightstone AS, Shih M: Public opinion on nutrition-related policies to combat child obesity, Los Angeles County, 2011. *Preventing Chronic Disease* 2014, 11:E96.
12. Khytko O: Perfecting New Zealand's Consumption Tax System. *New Zealand Review of Economics and Finance*. 2012;2: 17-25.  
<http://www.victoria.ac.nz/sef/research/pdf/NZREF-Vol2.pdf#page=22>.
13. Bertram G, Simon T: *The Carbon Challenge: New Zealand's Emissions Trading Scheme*. Wellington: Bridget Williams Books; 2010.
14. Wright J: Addendum to the Submission on the Climate Change Response (Emissions Trading and Other Matters) Amendment Bill. Submission to the Finance and Expenditure Committee. Wellington: Parliamentary Commissioner for the Environment, 2012.  
<http://www.pce.parliament.nz/media/pdfs/PCE-Submission-on-the-Climate-Change-Amendment-Bill.pdf>
15. Ecofys World Bank: *State and trends of carbon pricing 2014*. Washington: World Bank, 2014.
16. Chapman R: *Time of Useful Consciousness: Acting Urgently on Climate Change* Wellington: Bridget Williams Books; 2015.
17. Allan C, Kerr S, Will C: Are we turning a brighter shade of green? The relationship between household characteristics and greenhouse gas emissions from consumption in New Zealand. *Motu Working Paper 15-06*. Wellington: Motu Economic and Public Policy Research, 2015. [http://motu-www.motu.org.nz/wpapers/15\\_06.pdf](http://motu-www.motu.org.nz/wpapers/15_06.pdf).
18. Elder RW, Lawrence B, Ferguson A, Naimi TS, Brewer RD, Chattopadhyay SK, Toomey TL, Fielding JE, Task Force on Community Preventive S: The effectiveness of tax policy interventions for reducing excessive alcohol consumption and related harms. *Am J Prev Med* 2010, 38(2):217-229.
19. Wagenaar AC, Tobler AL, Komro KA: Effects of alcohol tax and price policies on morbidity and mortality: a systematic review. *Am J Public Health* 2010, 100(11):2270-2278.
20. Cobiac L, Vos T, Doran C, Wallace A: Cost-effectiveness of interventions to prevent alcohol-related disease and injury in Australia. *Addiction* 2009, 104(10):1646-1655.
21. Connor J, Casswell S: The burden of road trauma due to other people's drinking. *Accident; Analysis and Prevention* 2009, 41(5):1099-1103.
22. Connor J, Casswell S: Alcohol-related harm to others in New Zealand: evidence of the burden and gaps in knowledge. *N Z Med J* 2012, 125(1360):11-27.
23. Connor J, You R, Casswell S: Alcohol-related harm to others: a survey of physical and sexual assault in New Zealand. *N Z Med J* 2009, 122(1303):10-20.
24. Ashton T, Casswell S, Gilmore L: Alcohol taxes: do the poor pay more than the rich? *British Journal of Addiction* 1989, 84(7):759-766.

25. Cobiac LJ, Ikeda T, Nghiem N, Blakely T, Wilson N: Modelling the implications of regular increases in tobacco taxation in the tobacco endgame. *Tob Control* 2015, 24(e2):e154-160.
26. New Zealand Government: Government Response to the Report of the Māori Affairs Committee on its Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori (Final Response). Wellington: New Zealand (NZ) Parliament, 2011.  
[http://www.parliament.nz/en-nz/pb/presented/papers/49DBHOH\\_PAP21175\\_1/government-final-response-to-report-of-the-māori-affairs](http://www.parliament.nz/en-nz/pb/presented/papers/49DBHOH_PAP21175_1/government-final-response-to-report-of-the-māori-affairs).
27. Ajmal A, U V: Tobacco tax and the illicit trade in tobacco products in New Zealand. *Aust N Z J Public Health* 2015, 39(2):116-120.
28. Colchero MA, Salgado JC, Unar-Munguia M, Molina M, Ng S, Rivera-Dommarco JA: Changes in Prices After an Excise Tax to Sweetened Sugar Beverages Was Implemented in Mexico: Evidence from Urban Areas. *PLoS One* 2015, 10(12):e0144408.
29. Colchero MA, Salgado JC, Unar-Munguia M, Hernandez-Avila M, Rivera-Dommarco JA: Price elasticity of the demand for sugar sweetened beverages and soft drinks in Mexico. *Economics and Human Biology* 2015, 19:129-137.
30. Colchero MA, Popkin BM, Rivera JA, Ng SW: Beverage purchases from stores in Mexico under the excise tax on sugar sweetened beverages: observational study. *BMJ* 2016, 352:h6704.
31. The Economist: Stopping slurping: Taxes on fizzy drinks seem to work as intended. *The Economist*. 28 November 2015. <http://www.economist.com/node/21679259/print>.
32. Waterlander WE, Ni Mhurchu C, Steenhuis IH: Effects of a price increase on purchases of sugar sweetened beverages. Results from a randomized controlled trial. *Appetite* 2014, 78:32-39.
33. European Commission: Survey on members states implementation of the EU salt reduction framework: Directorate-General Health and Consumers. 2012. Available from: [http://ec.europa.eu/health/nutrition\\_physical\\_activity/docs/salt\\_report1\\_en.pdf](http://ec.europa.eu/health/nutrition_physical_activity/docs/salt_report1_en.pdf);
34. Smith-Spangler CM, Juusola JL, Enns EA, Owens DK, Garber AM: Population strategies to decrease sodium intake and the burden of cardiovascular disease: a cost-effectiveness analysis. *Annals of Internal Medicine* 2010, 152(8):481-487, W170-483.

Public Health Expert Briefing (ISSN 2816-1203)

---

**Source URL:**

<https://www.phcc.org.nz/briefing/tax-reform-pros-cons-brief-look-public-health-perspective>