# Tax on fizzy drinks could save the lives of about 67 Kiwis each year

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(Medical Xpress)—A tax on fizzy drinks could save lives and generate millions in revenue for health programmes in New Zealand.

This is according to new research published in the *New Zealand Medical Journal* today and conducted as part of a larger study examining the effects of a range of health-related food taxes and subsidies on population health.

The study is led by the National Institute for Health Innovation at the University of Auckland, in collaboration with the University of Otago, and funded by the Health Research Council of New Zealand.

Researchers estimate a 20 percent tax on fizzy drinks would reduce energy consumption by 0.2percent or 20kJ a day and help avert or postpone about 67 deaths from cardiovascular disease, diabetes and diet-related cancers a year.

The health effect of such a tax would likely be greater amongst Maori and Pacific consumers, as they are more responsive to changes in food prices, and amongst children and young people due to their higher consumption of such drinks.

"High sugar intakes are linked to obesity, type 2 diabetes and cardiovascular disease – a strong case can therefore be made for efforts to reduce consumption," says lead researcher Professor Cliona Ni Mhurchu of the National Institute for Health Innovation.

"Of particular concern are sugar-sweetened soft drinks because they are nutrient poor, and energy from beverages appears less satiating than that obtained from solid foods, resulting in increased consumption."

Almost one fifth of the total sugar intake of New Zealand adults (17percent) comes from non-alcoholic beverages and younger people in particular derive a substantial proportion of their sugar intake from these drinks.

"Between 27 and 29percent of total sugar consumed by 15 to 18 year-olds comes from these beverages versus seven to eight percent in those aged over 71. Younger children, aged five to 14, obtain nearly a quarter (24percent) of their daily sugar intake from beverages," says Professor Ni Mhurchu.

"Randomised controlled trial data have shown convincingly that reducing consumption of sugar-sweetened beverages decreases weight gain in children."

In addition to the health benefits, a 20percent tax on fizzy drinks could generate up to $40 million in new tax revenue each year, which could be invested in programmes to improve population health, according to the researchers' calculations.

"The average New Zealand household spends $166, or 1.8 per cent of their food expenditure, on fizzy drinks a year. With 1.55 million households in the country according to the 2013 Census, we estimate the total national expenditure on these beverages is around $257 million each year," says Professor Tony Blakely, co-author and researcher at the University of Otago, Wellington.

"Therefore a 20percent tax on these drinks could generate up to $40 million revenue a year, even allowing for reductions in consumption due

to tax, if applied to all fizzy drinks, or about $30 million if applied only to sugar-sweetened varieties."

A number of countries have implemented taxes on soft drinks or sugar-sweetened beverages, and research published recently in the *British Medical Journal* reported that a 20percent sales tax on sugar-sweetened drinks could reduce the prevalence of obesity in the UK by 1.3percent and reduce the prevalence of overweight by a further 0.9percent. A health impact assessment of a proposed 10percent tax on sugar-sweetened beverages in Ireland found it could reduce the prevalence of obesity by 1.3% and prevalence of overweight by a further 0.7%.

"Our review of the international evidence supports these findings," says Professor Blakely.

"Despite differences in tax rates and effect sizes, the pooled evidence suggests taxes on fizzy drinks would result in positive dietary change, and potentially improved health."

Given its cost-effectiveness, a percent tax on carbonated drinks could be a simple, effective component of a multifaceted strategy to tackle New Zealand's high burden of diet-related disease, conclude both Professor Ni Mhurchu and Blakely. It warrants serious consideration by decision-makers, and public discussion and debate.

## Methodology

The researchers used a macro-simulation model based on household food expenditure data and demand elasticity to estimate the effects of a 20 percent tax. Cost-elasticity data for carbonated and other non-alcoholic beverages in New Zealand was used, along with expenditure data from the last two national Household Economic Surveys. Population demographics were obtained from the 2006 New Zealand Census, while

population disease-specific mortality rates by age, sex, income and ethnic group were obtained from national mortality data for 2009.

Provided by University of Auckland