

Progress on reducing retail availability of sugary drinks in NZ

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Nick Wilson, Cristina Cleghorn, Andrea Teng, Rob Beaglehole, Tony Blakely



New Zealand has made some progress in removing the sale of sugary drinks from hospitals and schools. In this blog we look at such successes to date and consider what could be done to further reduce availability of these products which are both harming oral health and fuelling the obesity epidemic.

There are good arguments and some evidence suggesting that NZ should follow Mexico, the UK and other countries in adopting taxes on sugar-sweetened beverages (SSBs*), as per these past blogs (UK, Mexico, Mexico and Pacific, Open letter to Cabinet Ministers for sugary drinks tax). A comprehensive approach to preventing obesity and protecting oral health would go much further. One part of such an approach would be to reduce the retail availability of SSBs and at the same time ensuring good access to water drinking fountains – which could certainly be improved in recreational areas as per this NZ study (1).

Recent successes around reducing access to SSBs in NZ include a request in 2015 from the Ministry of Health that public hospitals remove from sale all SSBs. There has also been encouragement from the Ministries of Education and Health in March 2016 for the removal of SSBs for sale from schools.

For NZ hospitals the process around SSB sales bans has taken 12 years since the first DHB moved on the issue (Waitemata DHB). Some still sell naturally-sweetened fruit juices, flavoured milk and diet soft drinks (e.g., <u>Waikato DHB</u>).

For schools <u>a survey in 2015</u> apparently showed 10% are now water-only, and just 5% still sell full-sugar 'fizzy' drinks. One of the first schools to become water-only was Yendarra School in Otara, Auckland, which eliminated sugary drinks 10 years ago. It would be ideal if future NZ studies could scientifically evaluate the impact of SSB removal from schools (e.g., on oral health). In the meantime, however, it would seem plausible that reduced availability would tend to result in reduced consumption. This logic is supported by a US study that found for girls aged 6-8 years, there was increased intake of SSBs (and snack foods/sweets and daily energy) with greater retail outlet availability (2). There is also the suggestive literature on alcohol availability and use by adolescents (3).

So what else could be done?

NZ could step-up policies to "end child and youth obesity". The NZ Government did launch its <u>childhood obesity plan</u> late last year. It is important to have a comprehensive strategy, ranging from interventions for helping children who are already obese to changing obesogenic environments. But the Government's policy has been widely criticised as weak on structural interventions, and inadequately addressing the role of the food industry (e.g., "Partnership with Industry", and "Marketing and advertising to children" continuing to leave leadership under industry self-regulation). No mention is made of SSB taxes or specific policies to limit SSB availability. It is clear that SSBs are only one of the many causes of child obesity, and not the only policy entry point for policies – but they are still a good entry point, especially given the combined harmful impact in terms of obesity and oral health.

Regulations to limit SSBs could – probably should – be one component of any comprehensive strategy. This could be achieved through national-level laws or regulations, or facilitating local government to set limits (in the same way as can be done now for alcohol).

A SSB excise tax (with revenue funding healthy school lunches and evidence-based education programmes), and mandated SSB and junk food marketing restrictions (especially those targeting children), are two obvious places to strengthen current policy.

Whether it be through national-level regulation, or empowering of local government (or the less than ideal leave-it-to-the-stakeholders 'code of practice' approach), sales of SSBs could be prohibited (or limited) in all organisations that receive government funding or which are on government-owned land. Restrictions of bans on SSB sales within 1 km of schools, similar to the restrictions on alcohol and tobacco sales near schools in some jurisdictions around the world, is also a possible in-road to changing the obesogenic environment.

Some further specific options, again all 'avenues in' to contribute to changing the obesogenic environment, include:

• Local governments adopting their own policies to ensure no SSBs are sold in Council

facilities or on Council-owned land. The ideal could be to introduce such measures at the same time as upgrading access to drinking fountains (1). A range of councils have already got such policies e.g., <u>Nelson City Council</u>, <u>Marlborough District Council</u> and <u>Palmerston North City Council</u>.

- Tertiary education organisations prohibiting SSB sales on their campuses. Such a policy has been adopted by the Division of Health Sciences, Otago University, Dunedin.
- The NZ Defence Force prohibiting sales of SSBs on all military bases (some of these bases have children living on them and their own schools and childcare facilities).

Restricting sales of just SSBs or other drinks also?

SSBs seem to be more obesogenic than artificially sweetened beverages (ASBs**) according to one systematic review (4), and substituting ASBs for their regular-calorie versions "results in a modest weight loss" according to another systematic review (5) (when considering just the results for the randomised trials in this review, <u>as previously</u> discussed in a PHE blog). Another systematic review reported that habitual consumption of SSBs was associated with a greater incidence of type 2 diabetes (independently of overweight/obesity) (6). While this review also found that ASBs and fruit juice consumption showed associations with increased incidence of type 2 diabetes, these particular findings were not as robust (with somewhat similar results found in an earlier systematic review (7)).

SSBs also appear to raise blood pressure, as per this systematic review (8). But both SSBs and ASBs were associated with hypertension according to a more recent systematic review (9). Finally, another systematic review reported that SSBs were associated with non-alcoholic fatty liver disease, while this was not so for ASBs (10).

ASBs are acidic (as are SSBs) and so cause dental erosion. This then makes the teeth more susceptible to decay (11, 12). Also, they do not contribute any necessary nutrients (in contrast to beverages such as unsweetened milk). ASBs may also continue to sustain the idea of sweet-tasting drinks being the only normal option. But permitting ASBs to remain available might make it easier for organisations to at least restrict sales of SSBs which seem to have the greatest health risks given the evidence to date.

Conclusions

NZ is making some progress on reducing access to sugary drinks in both hospitals and schools. However, there are further potential benefits from new measures, be they laws and regulations, by-laws or codes of practice which could further constrain the availability of SSB sales outlets. There are still complex pros and cons about if such restrictions should also cover alternative beverages such as ASBs.

Notes: * Sugar sweetened beverages (SSBs) are drinks with an added caloric sweetener such as sugar. The main categories of SSBs include soft drinks, fruit drinks, sachet mixes, cordials, energy or sports drinks, flavoured milks, and cold teas or coffees (New Zealand Beverage Guidance Panel, 2014). Artificially sweetened beverages are excluded (e.g., diet soft drinks).

** Artificially sweetened beverages (ASBs) are drinks with any added sweetener such as aspartame and stevia..

References

- 1. Pearson AL, de Latour P, Kemp G, et al. Understanding differences in access to water fountains and sugar-sweetened beverages in childrens environments: a pilot study in high and low deprivation neighbourhoods. Health Place. 2014;30:94-97.
- 2. Deierlein AL, Galvez MP, Yen IH, et al. Local food environments are associated with girls' energy, sugar-sweetened beverage and snack-food intakes. Public Health Nutr 2014;17:2194-2200.
- 3. Bryden A, Roberts B, McKee M, Petticrew M. A systematic review of the influence on alcohol use of community level availability and marketing of alcohol. Health Place. 2012;18(2):349-357.
- 4. Te Morenga L, Mallard S, Mann J. Dietary sugars and body weight: systematic review and meta-analyses of randomised controlled trials and cohort studies. BMJ. 2013;346:e7492.
- 5. Miller P, Perez V. Low-calorie sweeteners and body weight and composition: a metaanalysis of randomized controlled trials and prospective cohort studies. Am J Clin Nutr. 2014;100:765-777.
- Imamura F, O'Connor L, Ye Z, et al. Consumption of sugar sweetened beverages, artificially sweetened beverages, and fruit juice and incidence of type 2 diabetes: systematic review, meta-analysis, and estimation of population attributable fraction. BMJ. 2015;351:h3576.
- 7. Greenwood DC, Threapleton DE, Evans CE, Cleghorn CL, et al. Association between sugar-sweetened and artificially sweetened soft drinks and type 2 diabetes: systematic review and dose-response meta-analysis of prospective studies. Br J Nutr. 2014;112(5):725-734.
- 8. Malik AH, Akram Y, Shetty S, et al. Impact of sugar-sweetened beverages on blood pressure. Am J Cardiol. 2014;113(9):1574-1580.
- 9. Kim Y, Je Y. Prospective association of sugar-sweetened and artificially sweetened beverage intake with risk of hypertension. Arch Cardiovasc Dis. 2016.
- 10. Wijarnpreecha K, Thongprayoon C, Edmonds PJ, Cheungpasitporn W. Associations of sugar- and artificially sweetened soda with nonalcoholic fatty liver disease: a systematic review and meta-analysis. QJM. 2015 (E-publication Sep 18. pii: hcv172).
- 11. Reddy A, Norris DF, Momeni SS, et al. The pH of beverages in the United States. J Am Dent Assoc. 2016;147(4):255-263.
- 12. von Fraunhofer JA, Rogers MM. Dissolution of dental enamel in soft drinks. G

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