



Letter to the Editor

Sugar-sweetened beverages: still cause for concern in New Zealand and Australia

Madam

We would like to respond to the letter submitted to *Public Health Nutrition* by Ms Rich of the Food and Grocery Council of New Zealand⁽¹⁾ in response to our article 'The nutritional content of supermarket beverages: a cross sectional analysis of New Zealand, Australia, Canada and the UK'⁽²⁾.

We would like to thank Ms Rich for taking the time to evaluate our study, although we do not agree that our published article contains misleading information as suggested. It is clear that by focusing on minor editing errors that do not substantively impact the key findings and from the overall format of the letter, Ms Rich has adopted the well-known 'Gish gallop' technique to try and detract from the key conclusions from our research, which are firmly supported by our research and existing literature. We focus on these key conclusions in the following text.

We stand by our statement that sugar-sweetened beverages (SSB) dominate the non-alcoholic beverage market, especially in New Zealand and for specific product categories. At a time when countries such as New Zealand are faced with an obesity epidemic and related non-communicable diseases, to have products with added sugar in essentially every second non-alcoholic beverage is clearly concerning. This is particularly true for product categories such as carbonated soda drinks that offer minimal other nutrients (i.e. deliver 'empty calories'). According to our data, more than 80% of all carbonated soda drinks in New Zealand and Australia contain added sugar. This is an important issue given that trends continue to show that SSB are preferentially chosen over non-sweetened beverages (e.g. based on Australian sales data in 2011, the ratio of SSB *v.* non-SSB sold was ~60% *v.* ~40%), with the reported decrease in SSB sales being only 0.7% per annum over the last 15 years⁽³⁾. It has also been identified that fruit juices are significant contributors to sugar intake (even without added sugar)⁽⁴⁾ and recent research reports that New Zealand and Australia had the highest consumption of fruit juice of 187 surveyed countries⁽⁵⁾. Thus, these beverages should be limited (with New Zealand adult nutrition guidelines suggesting that water should be consumed rather than fruit juice⁽⁶⁾).

Ms Rich suggested that a major 'impediment' to our study was the use of different data collection methods between countries. In fact, an important strength of the research was the use of generally consistent approaches to collect data – all countries collected the same type of

product data from major supermarkets (representing at least 68% market share in each country) and all countries used a collection app to collect the data (the UK using the same FoodSwitch Data Collector App as Australia). Furthermore, our research team used online shopping websites to collect the nutritional information from products that had not been collected in-store previously, providing for near full data across all categories and countries. We acknowledge that there were minor variations in data collection protocol between countries (e.g. differences in data collection times *may* have led to seasonal bias of the data set), although we consider that these were unlikely to cause major sampling errors.

We acknowledge that our definition of a fruit juice does not agree with that of the Australia New Zealand Food Standards Code, but this was because the paper included countries other than New Zealand and Australia. Instead we used a consistent definition for fruit juices that allowed for a comparison across countries. The results of our study therefore suggest that a significantly higher proportion of fruit juice products in New Zealand and Australia contain added sugar compared with other countries. This is concerning given that New Zealand Ministry of Health data suggest that more than a third of New Zealand adults drink fruit juices or fruit drinks at least three times per week⁽⁶⁾.

Our publication looked extensively at the nutritional quality of products that we deemed to be a single-serving size, defined as those sold in a container size of ≤600 ml. Ms Rich suggested that we have incorrectly used the reference serving size information available from the US Food and Drug Administration (FDA), stating that the US FDA refers to reference amounts that equate to 'serving size' and not to container size. However, our data and results did not report that the US FDA was suggesting or endorsing container size, but rather we were using this as comparative information for a reference serving size for these different beverage categories *v.* what was actually likely to be consumed in one sitting. We did not imply that container sizes are regulated (as indicated in Ms Rich's letter⁽¹⁾) nor did we suggest anywhere that such regulations were being ignored. Nevertheless, given consistent research demonstrating that larger portion sizes can lead to overconsumption and excess energy intake⁽⁷⁾, policies to limit the availability of large single-serving SSB should be and are being enacted by government agencies^(8–10).

Contrary to Ms Rich's unsubstantiated assertion, existing evidence does suggest there is a correlation between SSB product availability and consumer purchasing decisions. Research clearly indicates that reducing the availability of unhealthy foods and drinks reduces the purchasing of



such products, and vice versa for healthy products^(11,12). While we acknowledge that many manufacturers are responding to consumer demand by producing reformulated products (including lower-sugar options), the high current availability of SSB (~40–50% of non-alcoholic beverages in each of the countries examined) is a cause for concern. A number of health organizations and government agencies are hence designing healthy food provision guidelines to alter the relative availability of healthy *v.* unhealthy products, including in public schools and hospitals^(8–10). Our findings therefore support these efforts to further reduce the availability of SSB.

Ms Rich also criticized our statement that ‘self-regulation of the food industry is not working’ and that policies are required to influence the purchasing of SSB. However prior research indicates that voluntary self-regulation often does not lead to intended changes^(13,14), whereas policies with clear goals targeting the food environment (e.g. removal of SSB from specific locations and taxation on SSB) are likely more effective in influencing consumer behaviour^(15,16). In addition, modelling studies suggest that policies that target pricing of SSB and reducing the level of sugar in SSB will likely lead to significant health benefits at the population level^(17,18).

We acknowledge that the initial published version of the article⁽²⁾ contained minor text editing errors. The first occurred in the abstract and results, where it was reported that 9% of beverages in the UK contained added sugar. The correct value for this was 38.9%. The second error was the use of per cent rather than pence per litre when describing the level of taxation to be applied to beverages in the UK based on the proposed soft drinks industry levy (in the methods and the caption for Fig. 1). We apologize for these oversights during proofing, but at the time of writing this letter these errors have been corrected online in a corrigendum⁽¹⁹⁾. We also acknowledge that we incorrectly reported the Canadian rather than the US FDA maximum serving size values in Table 2 and that there was an error in Table 1 of the article, where the *F* and *P* values are incorrectly reported for water drinks.

It is also correct that we did not identify which product size was retained in the data set where multiple product sizes were available with the same nutritional information. We note here that, where available, smaller products were retained (≤ 600 ml) so as to inform our later analysis of ‘single-serve’ products. This does not affect the values reported for nutritional content in our article⁽²⁾, although it may be helpful in further analyses to record the total number of products (including those of different package sizes) to see how the full market product availability affects the summary beverage category data.

Acknowledgements

Financial support: This research received no specific grant from any funding agency in the public, commercial or

not-for-profit sectors. **Conflict of interest:** None. **Authorship:** L.M., G.M. and J.H.Y.W. were all responsible for the preparation and writing of this letter. **Ethics of human subject participation:** Not applicable.

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