

## Submission to Select Committee into the Obesity Epidemic in Australia

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This submission addresses terms of reference b. f. and g. and in particular the role of sugar. I will show that sugar by itself is not the major cause of obesity and question the efficacy of a sugar tax. Rather than list separate references, the text includes embedded links to the relevant documents.

I speak with extensive knowledge of the sugar industry and nutrition having worked for CSR Limited for over thirty years before leaving in 1995 to join the starch based food ingredient industry for a further seventeen years. I have no vested interest other than a desire for a balanced and science based approach to obesity and the role of sugar. I was the managing director of New Zealand Sugar Company Ltd for six years from 1987.

The Select Committee will no doubt receive submissions on the role of sugar as a possible cause of the growth in obesity and the desire by some to introduce a sugar tax on sugar sweetened beverages.

For many, sugar has become the prime suspect in the growth in childhood and adult obesity. The cause has been taken up by some doctors, some scientists and a growing list of existing and 'wannabe' celebrities. Sadly it has become an issue of the left (anti-sugar) vs the right (freedom of choice) rather than one of good science and evidence. ABC's Four Corners devoted the program "Tipping the Scales" to the subject on 30 April 2018 with the promotional tag "Many point the finger at sugar - which we're consuming in enormous amounts ...".

The program was biased and ignored critical evidence that sugar consumption in Australia has actually been falling for decades. The "enormous amounts" we are supposed to be eating are in fact well below what we were eating more than fifty years ago. I have written a formal complaint to the ABC which is available by [clicking here](#).

The backbone of the program was the preaching of Dr Robert Lustig. His work is far from universally accepted. Indeed it is flawed. In looking for causes for childhood obesity Lustig observed the growth in the use of high fructose corn syrup (HFCS) in the USA to sweeten soft drinks in place of high cost subsidised sugar. He demonstrated a near perfect correlation between the growth in HFCS and obesity. He postulated that it was the fructose in HFCS that caused the problem and set out to prove it. He then transferred his blame on fructose to natural sugar and has crusaded about the evils of sugar ever since.

Critical to Lustig's argument is the HFCS/obesity correlation in the USA. Basic science says that correlation between two events does not of itself mean causality. His research was US-centric. He claimed in the program that before 1980 Type 2 diabetes and fatty liver disease were virtually unheard of and have since reached "epidemic proportions" as has obesity – all because of sugar. But here is the key flaw in Lustig's arguments: **Australians are now eating less sugar per capita than we were in the 1950's (and 1980) and yet obesity and the other diseases have grown significantly and at similar rates to the "epidemic" in the US.** HFCS has never been sold in Australia, neither has any volume of imported fructose.

The decline in consumption has been known by the sugar industry for decades. It came to public notice when Professor Jennie Brand-Miller and Dr Alan Barclay published their [Australian Paradox paper](#) in April 2011. The paper was wrongly criticised because of a minor error and because it contradicted the beliefs of the anti-sugar proponents.

On 18 July 2014 Sydney University released a report exonerating the authors and suggesting an update. Brand-Miller and Barclay published their [update](#) on 8 March 2017 in the American Journal of Clinical Nutrition. It is more comprehensive than the 2011 paper and uses additional data sources. The findings are the same: per capita sugar consumption, including sugar sweetened beverages, has been declining for many years (16% from 1980 to 2011) and continues to do so. In fact the peak per capita consumption occurred in the early 1950's. The authors conclude "The findings challenge the widespread belief that energy from added sugars or sugars in solution are uniquely linked to the prevalence of obesity."

A statutory body, Food Standards Australia New Zealand, published an [information paper](#) in February 2018 simply headed "Sugar". The paper included the following ABS key findings under the heading "Consumption".

The [latest statistics on sugar consumption in Australia](#) show that:

- Between 1995 and 2011–12, Australians had a relative decrease in their consumption of free sugars, with the average proportion of dietary energy from free sugars **declining from 12.5% to 10.9%**.
- While the average proportions of dietary energy from free sugars in each period were each higher than **WHO's recommended limit of 10%**, the proportion of people exceeding that limit on any given day fell from more than half (54%) of the population in 1995 to less than half (46%) in 2011–12.
- **The largest declines (and contributing most to the overall declines) in free sugars were among children.** Between 1995 and 2011–12, the average proportion of energy derived from free sugars by **children aged 2–18 years decreased from 17% to 13%**.
- Most of the decline of children's free sugar consumption can be accounted for by the **reduction in consumption of soft drinks, cordial and fruit juice/drinks**. On a per 10,000 kJ of energy basis, **total free sugars consumed by children aged 2–18 years dropped by an average 24 grams** (from 105 grams to 81 grams per day). Over the same period the average daily consumption of free sugars from soft drinks, energy/electrolyte drinks, cordials and fruit juice/drinks dropped an average 22 grams (from 55 grams to 33 grams per 10,000 kJ).
- Soft drinks, energy/electrolyte drinks, cordials and fruit juice/drinks were the most common source of free sugars for the populations in both periods. However, Australians aged 2 years and over **sourced a higher proportion of free sugars from these beverages in 1995 than in 2011–12** (44% compared with 37%).

These statistics from the ABS are surely beyond reproach. The highlights in yellow are my own.

With all the negative press about sugar and the food industry's strategy to develop and promote "no added sugar" products it should be no surprise that we ARE eating less added sugar.

Sugar consumption is falling and obesity is increasing. The rise in obesity will not be reversed by prioritising any action on sugar. Yet governments and distinguished bodies such as the AMA are advocating a tax on sugar sweetened beverages (SSB's). This is a call in desperation in an attempt to be seen to be "doing something" and does not stand up to rigorous analysis.

The ABS figures and industry data are analysed in some detail in the Brand-Miller/Barclay update paper referenced above and which is a must read for the Committee. The paper says the industry

data shows “Per capita sales of carbonated SSBs lost 18% of volume (–20 L/y) over the 15 y”. In addition, the paper says the ABS national Dietary Survey data showed the following results:

“The proportion of children and youth aged 2–18 y who consumed SSBs on the day of the survey declined 31% (from 68.1% in 1995 to 46.7% in 2011–2012) (Figure 4). The declines were greater in younger children than in teenagers. In children aged 2–18 y, the proportion who consumed diet beverages also declined from 8.5% in 1995 to 5.7% in 2011–2012 (Table 2). The proportion of energy as SSBs plus 100% juice decreased from 9.3% to 6.0% of energy (–35%) in boys and from 9.0% to 5.1% of energy (–44%) in girls (Figure 6). The proportion of energy in the form of soft drinks declined 26% in boys (from 3.7% to 2.7% of energy) and 36% in girls (from 3.0% to 1.9% of energy) (Figure 5). Similarly, the proportion of total sugars in the form of soft drinks fell 16% in boys and 27% in girls (Table 1).”

28 countries have reportedly introduced a sugar tax on SSB's. Proponents argue this is a reason we should do the same. The objective is to reduce SSB consumption and that is the only measure proponents have used to argue the success of a tax. No country has yet been able to show a reduction in obesity as a result of the tax. Consumption has fallen significantly in Australia and yet obesity continues to rise. The sugar tax argument is an unnecessary diversion from tackling obesity.

So why do I care? The attack on sugar and emotional call for a sugar tax is **diverting focus from improving overall diets, reducing calories and adopting a healthier lifestyle**. We regularly hear commentators saying words like “now we know the problem is sugar and not fats”. This is simply not true and gives people the impression that all they have to do to control their weight is give up sugar. I am also personally offended by any comparison of sugar consumption with smoking and addiction.

Over consumption of soft drinks has been shown to be a problem in some communities and that needs to be tackled at that community level – it does not mean that all SSB consumers should be taxed.

Some other key facts:

- A common belief is that sugar causes diabetes. Not so. Obesity is certainly linked to type 2 diabetes and sugar can make you obese if over consumed as can any other food. The fact remains that fats have the highest energy (kilojoule or calorie) content of all foods.
- It does not matter how we consume sugar - in soft drinks, cakes, processed tinned food, apples, oranges, grapes, raw or refined. The human gut does not distinguish where the sugar comes from. It is the same chemical – sucrose. That is why it is total calories or total sugars in food which is important for weight control – to separately label added sugar is not helpful.

In short, the strong focus on sugar by many commentators as THE major cause of obesity is simply not true and a sugar tax is unlikely to reduce obesity.

Nutrition must be one of the most confused areas of “science” on earth. Everyone has a theory, a different diet, and “proof” that their view is correct. True science should not be so black and white but pass the tests of evidence, questioning and then more evidence. It is hoped that the Committee will take a balanced science based approach to the issue of obesity.