

## **Reviewer's report**

**Title:** Trends in sugar supply and consumption in Australia: Is there an Australian Paradox?

**Version:** 1 **Date:** 2 October 2012

**Reviewer:** Sara Bleich

### **Reviewer's report:**

This paper challenges a study describing the - "Australian Paradox" - the idea that that sugar consumption has decreased during the time that obesity has increased. This paper addresses an interesting and policy relevant argument. Detailed comments below;

Major compulsory revisions:

- 1) The argument challenging the Barclay paper should be presented more clearly. For example in the results section of the abstract, it sounds like the authors are saying their own results are not reliable because of data limitations rather than their main point – which is that the findings by Barclay et al are not reliable.
- 2) My major issue with this paper has to do with the components of the 'sugar' category. Throughout the entire manuscript, it is unclear whether the authors are including high fructose corn syrup in their definition of sugar. This issue is briefly mentioned in the abstract but not in the full paper. This should be made very clear as it has big implications for the interpretation of the data. In the US for example, sugar supply (based on FAO food balance sheets) has declined over the past 40 years but high fructose corn syrup has risen dramatically. The definition of 'sugar' may explain the different findings between this paper and Barclay et al.
- 3) The FAO grades the quality of the food supply data for each country. The quality score for Australia should be added.
- 4) In their data search strategy, the authors state that they created lists of foods with "relatively high sugar content" but it is unclear how they defined this category. More detail should be added.
- 5) Throughout the manuscripts the authors mention the various weaknesses of the data, in general, and the Barclay et al. paper, in particular. They should move all this text together into a stand along section or sub-section so it is clear what data/arguments they are challenging.
- 6) Somewhere in the paper, probably the limitations section, the authors should mention that food supply data cannot account for wastage
- 7) One of the stated aims is to determine whether sugar supply data could be

used to make conclusions about sugar's role in obesity. Even if the authors results were not contrary to Barclay et al, the authors should acknowledge that food supply data is not an ideal metric for understanding the relationship between sugar and obesity as supply data does not measure actual consumption – it can only measure the food that is available for consumption.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

None