Reviewer's report

Title: Water and beverage consumption among adults in the United States: Cross-sectional study using data from NHANES 2005-2010

Version: 2 Date: 19 August 2013

Reviewer: Didier Garriguet

Reviewer's report:

The article is well written. I have a major issue with the use of the 2-day average describe below and some on the interpretation of the AI.

Major compulsory Revisions:

Although the authors acknowledge the limitation of the use of the 2-day methods while comparing to the AI, there is no reason they cannot use usual intake. All the tools are available for them to use the NCI method for example (documentation, source code). This will have a significant impact on the estimate reported.

The AI for water represents the median consumption of 19-30 year-olds survey respondents to NHANES III. It should be viewed as an individual goal and compared to the median intake of a population group. Percent of people above or below this amount are hard to interpret. This should be part of the limitations of the study especially in the context that the authors recommend not to compare with data collected before 2005.

I would also like a discussion about the use of the 2-day average vs the use of the 1st recall only for mean intake estimation. In general, the second-day is biased (respondents know they will have to answer again and may change their food intake).

By taking respondents with 2 valid recalls, how many with only a first 24-recall were excluded? Could this biased the estimates?

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.