Reviewer’s report

Title: Iodine Content of Dietary Salt at Household level and Associated Factors Using Iodometric Titration Methods in Dera District, Northwest Ethiopia

Version: 0 Date: 19 Jun 2017

Reviewer: Angela Leung

Reviewer’s report:

This is a cross-sectional study analyzing the iodine content and associated characteristics in salt obtained from 1,194 households from an area in northwest Ethiopia. Samples of salt from each of these households were shipped to a central lab for analysis of iodine content. The authors report that 57% of household salt samples contained the recommended amount of iodine; iodine is a requirement micronutrient required for thyroid hormone production and is important for early brain development. The study is important to document the sources and practices of iodized salt use in a region of the world that has been underreported.

References to line numbers below utilize the set that is continuous throughout the manuscript.

1. It appears that many of the references are outdated and also incorrectly formatted due to use of a reference manager system. For example, reference #5 is from the World Health Organization and should be written out in full and updated from the 1996 publication to the current one from 2007.

2. Line 54: It is unclear what is meant that "iodine deficiency is the most common health problem".

3. Lines 54-56: The figure of what proportion and # of countries affected by iodine deficiency globally should be updated. The most recent data can be found on the Iodine Global Network website: www.ign.org

4. There are multiple typographical errors throughout. For example in line 57: Recommend obtains or receives, rather than get. Lines 83, 112, 154, 218, 226, and Figure 1 also contain typos or phrases which could be better-written to confirm with standard scientific language.

5. Lines 100-102: Justification for the statistical power should be provided if it is included. Otherwise, it is also fine to simply state that this was a convenience sample in a cross-sectional study.

6. Line 154: It does not appear that the recommendations of the World Health Organization have been previously mentioned. It would be helpful to explain this context with the appropriate reference(s) in the introduction.
7. Some additional information regarding the recommended storage conditions of iodized salt would also be helpful in the introduction. In addition, iodized salt is generally quite stable. Thus, please also include information regarding its expected stability, half life, temperature conditions, etc, along with appropriate references.

8. Lines 215-216: It would be helpful to include when this legislation was enacted, and what measures it entailed. Was there a specific percentage of household salt that requires use of iodized salt, or is this universal salt iodization?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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