Reviewer's report

Title: The Rising Overweight-obesity Rate and Its Socio-Demographic Correlates in Addis Ababa, Ethiopia

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Reviewer: Olufunke Alaba

Reviewer's report:

The rising overweight-obesity rate and its socio-demographic correlates in Addis Ababa, Ethiopia.

Compulsory revisions

The paper addresses a relevant issue associated with increasing prevalence of obesity in a developing country, Ethiopia. It examined the rising overweight/obesity and under-nutrition rates among adult females and its socio-demographic correlates in Addis Ababa, Ethiopia using the Ethiopian Demographic health survey of 2000, 2005 and 2011. I believe that this is an important and understudied issue in developing countries and the manuscript would be of policy relevance if the authors could address the following:

Compulsory revisions

1. The title: the title is currently misleading. The paper is actually looked at adult female overweight-obesity and under-nutrition in Addis Ababa as indicated in the abstract, I will suggest the author recast the title to reflect the actual issues addressed by the paper.

2. The Introduction: the emphasis and the discussion in the introduction is on obesity alone, the section, therefore needs revision to ensure a flow and alignment with the objectives.

3. Review of Literature: The authors included some uncommon variables in the analyses like parity and religion. I will suggest that the authors include a conceptual or theoretical literature that will explain the rationale behind all the chosen variables and a prior association of the correlates to obesity and under-nutrition. For instance, why should parity and religion be an important factor to consider when investigating overweight-obesity or under-nutrition prevalence?

4. The methods: the authors indicated that “in the survey, nutritional status of children and women was determined through anthropometry ...” this is confusing because there are different anthropometric measures. The authors should mention available anthropometric measures in the literature and indicate the ones they used.

a. It is very important for the authors to indicate whether the collection of the anthropometry data are self-reported or objectively measured. Self-reported weight and height data are subject to reporting bias and usually have
implication(s) on under or over estimation of figures. If this wasn’t corrected for in the analysis then the authors should at least acknowledge and briefly discuss this effect as a limitation.

b. It is important for the authors to indicate how the sampling structure of the data was handled in their analysis, given that the EDHS employed a two-stage cluster sampling technique.

c. I am concerned with the categorization of the source of drinking water and sanitation facility. Even though, the categorization is usually subjective and left for the researchers, however, given the fact that the paper is using the DHS, I will advise the authors to align their categorization as much as possible to the definition of improved water and sanitation sources/categorizations given by the WHO/UNICEF joint monitoring programme (http://www.wssinfo.org/definitions-methods/watsan-categories/).

d. I will like to know why some of the variables in the descriptive (table 1) are left out of the logistic regressions (table 2). I believe the inclusion of some or all of them will give more credibility to the descriptive results presented in table 1.

e. Please include the 95% confidence intervals in the logistic table (table 2)

5. Results

a. Descriptive analyses: The authors need to clarify the various prevalence rates in the first and second sentence of the second paragraph in the result section by distinguishing between ‘overall obesity’ and ‘urban obesity’. These words and the explanation thereof are somewhat confusing.

6. Discussion

a. The authors quoted some figures in the second paragraph of the discussion section in pages 12 and 13 regarding rural-urban gap in overweight-obesity in Ethiopia without appropriate referencing. Where are the figures coming from? Are they also from the rapid analysis, who carried out this rapid analyses, from what data, the year, and on which population (female, male, adults, children or total population)?

b. The conclusion presented in the last sentence on page 13 paragraph 2 cannot be rightly drawn from the analysis; ‘The continuous......might also indicate that the socio-economic transition in Ethiopia is not benefiting all citizens...’.

7. Unclear messages in the line of arguments: some sentences require clarity for easy read-through, thorough understanding of thoughts and messages being passed across. Some of these are as follows:

a. P.g 4, the paragraph...‘studies conducted in SSA to identify correlates of obesity found higher risk among high wealth quintiles or SES; urbanization…..’ , what does the authors mean by urbanization in this sentence?

b. P.g 4, last sentence in the same paragraph repeats the previous sentence and I am not sure what it means by urbanity

c. Delete ‘in’ and ‘(‘ on page 15 in the sentence, ‘The very fast rise in the ........

d. I am not sure what unintended child birth mentioned in the last paragraph of
the discussion section in page 15 has to do with the study or cross-sectional limitation of the paper. I think the authors should give more appropriate limitations.

**Level of interest:** An article of importance in its field

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

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

**Declaration of competing interests:**

I declare that I have no competing interests