Reviewer’s report

Title: Household dietary diversity and associated factors among residents of Finote Selam Town, North West Ethiopia: A cross sectional study

Version: 0 Date: 15 Feb 2017

Reviewer: Rina Agustina

Reviewer’s report:

Paper of Mekuria et al presents results on the household dietary diversity among residents in Finote Selam Town. However, the paper was not well written and I have some major concerns:

INTRODUCTION

General idea of the paper was not new as shown by many similar previous papers have been published in many regions on similar topics (EG. Ethiopia by Workicho et al, 2016; Ghana by Condjoe et al 2016 etc). Authors explained almost 1 page about dietary diversity, but did not provide clear information about the existing evidence in Ethiopia and what gaps needed to be filled in that motivated the authors to conduct this study.

Associated factors were left as open findings, authors need to explain why not focusing on certain predictors in the first place based on what have already found in many studies before and what problems might be of relevant to the context of the town of Finote Selam.

Introduction section should be revised.

METHODS

Study site:

Reason to choose Finote Selam town was not at all explained. The study setting was described as it was in town, but why in Table 1, it was mentioned urban and rural residence, it is confusing.

Study populations:

Were mentioned as permanent residents, but it was not so clear who were exactly the respondents?

What were their criteria to be eligible?
What does it mean by permanent residents (e.g., living more than 6 months or other criteria)?

Were they a family head or any member of family within a household?

Were children excluded?

**Measurements:**

Authors relied on the questionnaire and dietary recall for their measurement but did not describe how well the questionnaires have been constructed, pretested or validated.

Authors need to mention:

- the basis in constructing the questionnaires, what kind of guideline has been used, FAO Guidelines?

- How the questionnaires were administered, is it all at the household level (head of household) or at the individual level (household members who were eligible, i.e., 15-59 years old for females or for males).

The definition of a household was not described?

is it a group of people who eat from the same pot when food is prepared at home or bought from food vendors from the same source?

procedure to categorize the food groups and scale or score being calculated was not well explained.

**Ethical consideration:**

- In the case of participants who could not read, because many respondent were identified illiterate, in signing the informed consent, did the authors apply thumb-printed an informed consent form before participating in the study? or allow a witness to sign in addition to the thumbprint of the participant to indicate that the project was explained to the participant and he/she agreed to participate in the research?

**Data/statistical analyses:** was not clearly described, why all variables included in the index are dichotomized? what is the basis of this categorization?

**RESULTS**
All tables were not constructed neatly. Variables and decimals were not written in good order in all tables.

Table 2: Why not assessing socioeconomic by construction the wealth quintile index as measured by many studies which included all household assets and utility services rather than a section of monthly income?

table 4: In all, it was not reported how many food types were reported by the households, and why were categorized into 12 different food groups, which was the basis of this categoriation.

Table 5 was not nicely presented. Abbreviation used was not described in the footnote. WHY there were no Adjusted Odd Ratio for Ownership of farming land and HHFIAS? To be consistent, if P value is put in AOR, it also need to put for COR. Order in writing the reference used is not consistent, please revise, to make the table looks professional.

DISCUSSION

The main findings of the study need to be described in the beginning of discussion section.

Authors need to syntesize the figures/percentages found from the previous studies.

Discussion section is still lacking on explaining the internal validity in conducting the study and in constructing the scoring as well as in performing the statistical analyses; reasons of associated and no associated factors should be more described according to the local condition, not only just normative reasons; not mentioning at all about what implication to public health to this region and further porposed studies that might be needed for the local or other setting?; strength and limtiation of the study.

CONCLUSION

Need to be revised. WHY the presented of adequate household diversity was different between the abstract and conclusion section 88.2% or 87.2%?? Conclusion need to be directed to answer the research question.

Page 14 line 34-39 is too long and not clear.

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

No

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

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?
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I recommend additional statistical review

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