Reviewer’s report

Title: Determinants of Malnutrition among Pregnant and Lactating Women under Humanitarian Setting in Ethiopia

Version: 0 Date: 08 May 2017

Reviewer: CR Sudfeld

Reviewer's report:

This study presents findings from a cross-sectional study examining nutritional status of pregnant and lactating women (PLW) in Rayitu District, Ethiopia. This article adds to existing literature that malnutrition is common in humanitarian settings and that ANC and cash transfers may improve nutritional status of PLW. The manuscript presents qualitative and quantitative data, but the link between the two is weak. The data analysis also needs improvement and there are strong suggestions of statistical errors. The construction of multivariate models also needs significant improvement and I offer some suggestions below but consulting a statistician is advised.

Major

1. Most readers will not be familiar with the Rayitu district or its humanitarian response. Please add description of setting and humanitarian efforts to the setting section. Please also add what humanitarian assistance programs were ongoing at the time.

2. The results section says over 22% of pregnant and lactating women were >46 years of age. This is not possible. Please check your data.

3. Methods and Results: The methods for multivariate analyses are not clear. Which variables were included in the multivariate analysis? Why are all variables in Table 2 not in the analysis? Are Age, marital factors, and other variables in Table 1 but not Table 2 also in the multivariate model? I would suggest all variables in T1 and T2 (except those with low variability religion and ethnicity) be included in multivariate models.

4. The % with MUAC <21cm may differ for pregnant vs lactating women. Please add % of pregnant and lactating women in the sample to Table 1. Please also add pregnancy vs lactation as predictor in Table 2 analysis.
5. In Figure 3, you show age is a determinant of malnutrition. Why is age not in Table 2 as a predictor? There is also no reference to Figure 1 in the text.

6. There is disconnect between the qualitative and quantitative analysis. The qualitative data presented focused on food consumption but there is no variables on food consumption in the quantitative analysis. The quantitative analysis focuses on ANC, food assistance, and cash transfers, but there is no qualitative data on this. As a result, the qualitative data seems out of place and does not add much information. Is there more data to link qualitative and quantitative findings.

7. Was there any missing data in the analysis? How was it handled?

Minor

1. Abstract: "TSF" abbreviation is not defined. Please write out.

2. Abstract: It says women who did not attend antenatal care had lower risk of malnutrition. This does not match the results, it's the opposite.

3. Introduction: "Conversely" means the opposite. This is not an appropriate word for this sentence.

4. Introduction Paragraph 1: Can you define "chronic energy deficiency"?

5. Discussion. How does your findings compare to that in other humanitarian studies? Is the % malnutrition similar? Are predictors similar? It is not clear how this study adds value.
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.

Yes

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

Unable to assess

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:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.