Author’s response to reviews

Title: Risk Factors Associated with Poor Health Outcomes for Children under the Age of 5 with Moderate Acute Malnutrition in Rural Fagita Lekoma District, Awi Zone, Amhara, Ethiopia, 2016

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Response to reviewers’ comments

Thank you very much for your invaluable comments and contribution for the success of this paper, here the description of correction that was made and Justification for clarity on comments given.

Title: Risk Factors Associated with Poor Health Outcomes for Children under the Age of 5 with Moderate Acute Malnutrition in Rural Fagita Lekoma District, Awi Zone, Amhara, Ethiopia, 2016

Reviewer # 1:

General comments

1. The reviewers recommend revision for:” Abstract: “Please, indicate the abbreviation of AHR. I think is better indicated that the risk factors you found are associated specifically to this area. Maybe, the malnutrition in other zones or countries is associated with other risk factors”.

- Some of them were addressed point by points but the comments about the risk factors were already addressed and explained in the discussion part of the article.
- AHR was already indicated as Adjusted Hazard Rate in abbreviation part like others

2. In Key words: reviewer recommends us to remove: "moderate acute malnutrition" and "Ethiopia" because they are already in the title and you can replace with other important words.

- They were addressed point by points

3. Introduction: reviewer recommend comment as ” Maybe its too long, but, I missed some information about the maternal factors…Please, include the MAUC meaning in the text. L 11 pag 5: We hope to… replace it with.. This study wants… ”-.

- They were addressed but in case of maternal factors they were already described there in the last paragraph page 4 and first paragraph of page 5. Otherwise further addition may again exacerbate the reviewer fear that it was long.

4. Methods: Study setting: too much information about the location of the study.

- Except the correction we made we believe the rest are very crucial for the study

5. Methods: about-LINE 6 PAG 6: …HFIAS results that taken from previous study… Is it published? If yes, please add the reference, if not, you have to describe briefly the aims and main results of this study.”

- It was just reference number 12 that was cited the and listed in the list of reference

6. Methods:”Please specify the city and country of the software employed in the study. i.e EPI INFO 7 (Atlanta, USA), maybe, it these software are publish in the literatura you should cite them. use aletory, or blind instead of Lottery

- We made correction on the place but the software was published and we cited it as reference number 20 in the paper. Concerning blind and lottery method as our professional background we believe lottery method is appropriate in our case.
7. Methods: L.30 page 6. Please cite the WHO median child growth standards… Include the sam meaning

- Some correction was made but it was already defined as (the child growth with Z-scores between -3SD to -2SD).

- Severe Acute Malnutrition (SAM) is well defined on page 7 on line 6-8 “We categorized children as having SAM if, at the first or second follow-up visit, they had WFH/L below -3 SD of the WHO median value and/or (WFH/L) below 70% of the NCHS median value and/or MUAC <11.5 cm, with or without edema. “

8. Methods: general-Although the authors worked on a large number of individuals, this section is too long, repetitive, the methods are not well presented, and it’s difficult to follow. The authors considered the number of sons as malnutrition associated risk factor?

- What make data collection method and data quality control method too long is the issues under study i.e food and nutrition, and type of study design i.e follow up even though it is short that need critical detail on these section.

- We did consider the number of sons as malnutrition associated risk factor

9. Conclusion: “Conclusions: too long; it seems a part of discussion. Please be concise in this part.”

- Our conclusion is too short but since we present it we recommendation it seems long. More of its part is recommendation to stockholders for action.

10. References: Some references have been revised, for instance, 6, 8, 9, 10 …you should remove "Available from… and the date that you cited this article in your computer".

- They were addressed

Reviewer # 2:

1. The reviewers recommend revision for:” Line 23: The authors state that "in areas not considered chronically food-insecure, there are public SFPs" when it appears they mean that in fact, there aren't.”
2. Line 4: MAUC should be corrected to MUAC (Mid-Upper Arm Circumference). Line 9: Mentioning "poor health outcomes" instead of simply "health outcomes" establishes the direction of the association and therefore the term "food insecurity" should be used instead of "food security". Lines 40-43: Repetitive terms and statements should be avoided.

3. Line 32: Average food security at the woreda level may mask severe food insecurity at the household level. Line 34: A brief definition of "food security" may be informative for the reader.

   We focused on household level since woreda is not severely/chronically food insecure as we already describe it on line 20 and 21. There was not such confounding problem. To our background and experience in such epidemiological study clear definition of problem like insecurity is important than food security.

4. Lines 43-50: For each of the exclusion criteria, what percentage of the sample was excluded from the study? This information is key to understand the generalizability of the results.

   In such a follow up study particularly in nutrition we do not have a choose than excluding them. Otherwise, it can exacerbate the generalizability by confounding the apparent effect. If the reviewer understand us the exclusion were made before enrollment not after they enrolled. Therefore, we exclude them for data quality.

5. Line 6: Results that were taken from a previous study. Line 57: We categorize children as having MAM.

6. Page 9: Lines 41-42: The sentence should be revised for clarity and Page 10: Line 45-49: Incorrect interpretation of Figure 1.
7. Page 11: Lines 4-6: Please explain the clinical relevance of a 1-day increase in recovery time, in the context of the study.

➢ In the context of this study one is very critical for recovery with treatment since other related complications will be reduced and prevented

8. Page 11: Lines 4-6: Please explain the clinical relevance of a 1-day increase in recovery time, in the context of the study. Line 30: at the 5% level of significance. From line 42: Care should be exercised when interpreting Adjusted Hazard Rates. All the risk ratio interpretations are incorrect (e.g. AHR=1.50 corresponds to a 50% higher risk, not a 1.5 times higher risk). Line 60: Would food insecurity confound this association? And Page 13: Line 43: This would require the additional investment of scarce resources.

➢ They were addressed but concerning rise about confounding effect of food insecurity since we screened and classify them before enrollment, and food security status were known it would not be confound the association.

9. Tables: Please apply a standardized, uniform style in the use of symbols, capitalization, spacing and decimal digits across all tables. Please include p-values for the variable comparisons between the food secure and insecure groups. On Table 3, the data corresponding to the frequency of family food in food-insecure households should be corrected. MDD in 24 hours includes a duplicated row.

➢ They were good comments and we addressed them well but concerning the inclusion of p-values for the variable comparisons it is easy to us to include. But, scientifically and statistically presenting it with confidence interval is duplication of effort. That is way we excluded.

10. Figure 1: As constructed, the figure is not informative.

➢ It was addressed

Finally, we would like to thank both reviewers and coordinating office for your invaluable and constructive comments and contribution for the success of this paper.