Author’s response to reviews

Title: Dietary diversity among school age children in Merawi town, Amhara Region, Ethiopia, 2018: A community based cross-sectional study.

Authors:

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Author’s Response to Reviewers’ Comments,

Reviewer 1
Title: Dietary diversity among school age children's in Merawi town, Amhara Region, Ethiopia, 2018
Tilahun Tewabe, Msc.; Amare Belachew, Yihun Miskir and Getnet Mekuria

Journal : Archives of Public Health
- Comment1: I appreciate the opportunity to review this interesting scientific paper on the relationship between dietary diversity and some determinants in Ethiopia. I enjoyed reading the manuscript. I commend the authors for a number of strengths of their work as follows: 1. The use of appropriately sampling methods and data analysis approaches, 2. Conducted the study in the area where is far from the capital city, 3. The differences of the results about dietary diversity between this study and previous studies. These are all important strengths of the study.
- Response1: Thank you for your suggestions

-Comment2: Considering these strengths, though, as I read the manuscript I found some areas in which I would have appreciated greater clarity. I believe the paper could be further strengthened by added information about:
-Response2: Thank you for your comment and suggestions and we have carried out the comments as much as we can.

-Comment3: The abstract:
1. Would you please indicate that you used "binary logistic regression" in the abstract?
-Response3: Thank you for your comment and it is now the word binary is indicated in the abstract part (line 37 clean version).

- Comment4: The methods: 2.1 suggest expanding the description of the methods in this paper. Would you please explain what questions did you apply in your questionnaire? What choices were used? For
example, dietary diversity and food access scales. If it is possible, would you please put the questionnaire used as an appendix?

- Responses4: We used the Food and Agriculture Organization of the United Nations (FAO)/ Food and Nutrition Technical Assistance (FANTA) Guidelines for measuring Household and Individual Dietary Diversity tools. And consisted of four parts: sociodemographic characteristics, maternal and child health utilization, dietary diversity and food security questionnaire were incorporated. For measuring dietary diversity and food security the questionnaire were designed to have 'yes' or 'no' options. (line 135 clean version).

- Comment5: 3.Would you please explain how you categorized the choices for analyzing the binary logistic regression model?
- Response5: Thank you for your comment and it is done based on the operational definition that "when he/she eat at least four types of food groups per day (within 24 hours)" will be considered as good and if it is less than four it was considered as low diet diversity, and the food security questionnaire evaluated out of nine to say secured they should be secured for all components. And for others we used other researchers classification and by modifying accordingly to give sense of meaning for this study (line 166 clean version).

- Comment6: The results: 4. About Page 7, Line185-189, I wondered that this part should be in the methods. Because the results section should be the results only.
- Response6: Thank you the indicated part is now included in the method section on data analysis accordingly (line 173 clean version).

-Comment7: The discussion: 5.Would you please explain the justification you wrote, along with appropriate references, in Page 7 Line 207-210? "The other possible justification is in Ethiopia the number of fasting days are huge, i.e. 210 days per year and in most situations children start fasting by the age of seven (during school age period). This ultimately decrease the food intake of diversified food like meat, egg, milk."

-Response7: Thank you for your comment and it is based on the Ethiopian orthodox church fasting rules as indicated in . 'UPDATED 2019 (and 2020) ~ ETHIOPIAN ORTHODOX CHURCH Fasting / Feast /and Holy Days (Major and Minor etc.)" and within this time it is not allowed to eat fat, meat and eggs and other nutritious foods (line 236 clean version).

- Comment8: 6.About Page 8 Line 211-220, would you please indicate research seasons of the references cited? Because readers would like to know in which season the references studies were conducted as you mentioned that the differences of the results between this study and the other studies would be seasonal difference.
- Response8: Thank you, all were conducted in spring and winter seasons, and it is indicated in the manuscript and seasonal variation was not determined in this study (line 249 clean version).

- Comment9: 7. I also wonder whether the differences of the results about dietary diversity would be seasonal differences only?
- Response9: Thank you for the comment and it is not only seasonal differences as indicated in the manuscript.

- Comment10: 8. No significant strength and limitations discussed. It may be worthwhile to describe the strength and limitations in Page 8, along with appropriate references. What is the "some variables"?
If the authors are able to clarify them, this should make a nice addition to the manuscript.
- Response10: We have included strength and limitations as reads "strength the study identified determinants of dietary diversity which could be an important aspect for increasing diet diversity of school age children and as a limitation, there may be recall bais to some variables like; questions related to previous maternal and child health utilizations and seasonal variation was not determined since it was conducted in one season i.e, spring"

- Comment11: The Abbreviation: 9. Please add "COR"
- Response11: Thank you, "COR" is now included in the abbreviation part

- Comment12: Table 1: 10. Please add the name of the currency into the income part?
- Response12: Thank you, we used "Ethiopian birr" and it is now corrected as indicated in table 1.

- Comment13: Table 2 and Table 3: 11. Would you please indicate the sample size in total at each question?
- Response13: Thank you for your comment and it is corrected accordingly as indicated in table 2.

- Comment14: Table 4. 12. Please indicate what variables the authors put into the models? I also wonder why the model with AOR did not show the results of Education, Marital status and so on.
- Response14: Thank you for your comment and the following variables were first assessed in bivariate analysis "sex of the child, age of the child, number of children in the household, family size, birth order of the child, age of the mother, mother's religion, mother's ethnicity, mother's education, mother's occupation, mother's marital status, husband level education, husband’s occupation, ownership to farming land, irrigation user, average monthly income, access to information, family planning, child on school, level/ grade of education, child work, work for how many hours, child feeding in work, child history of illness, type feeding during illnesses, breakfast, frequency of eating, access to child nutrition education, food security". Among the above variables "education of mothers, marital status, maternal occupation, family size, age of the child, access to information and household food security" showed association in the bivariate analysis and then they were included in the multivariate model after that "age of the child and access to information" were the remained significant variables.

-Comment15: About overall rating and recommendation: If it is possible, I think additional analyses about differences of sex or levels of income would be interesting to discuss the results presented here, because the results in this study were important, but very simple. This article may need major revision referring to the comments above mentioned and English correction. There are some misuse colon and semi-colon.
-Response15: As indicated in the above question all variables were tested and only "age of the child and access to information" were the remained significant variables. We have edited the manuscript as much as possible.