Author's response to reviews

Title: Correlates of stunting among children in Ghana

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Author's response to reviews: see over
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Dear Editor,

SUBMISSION OF REVISED MANUSCRIPT 1877372161055388 - Correlates of stunting among children in Ghana

I write to submit our revised manuscript for your consideration and publication. Below are the revision and discussion of the reviewers’ comments and suggestion. We have also revised the entire manuscript for typo errors. We are sure that the manuscript has improved and look forward to your acceptance for publications.

Yours faithfully,

Eugene Kofuor Maafo Darteh
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Reviewer's report: Olukemi Amodu

1. The methods are appropriate but not well described.

Response: **We have improved on the description of the results**

Essential Revisions

2. There are repetitions in the description of the survey, household and the respondents. Statistical methods used are not well described. Results are too cumbersome and not well focused. The results should be reported in relation to the different variables in the models used and not as a comparison of the models. The method used by the authors in reporting the logistic regression is confusing. - Major Compulsory Revisions

Response: **We have deleted all repetitions and have also made the interpretation of the results less cumbersome**

3. The discussion is not well articulated in light of the findings from the study. There is a lot from the data that is not well discussed. - Major Compulsory Revisions

Response: **We have articulated the results well and made sure that all major results have been discussed**

4. The limitations of the study were not addressed. - Minor Essential Revisions

Response: **We have included the limitations of the study**
Reviewer's report

Title: Amy Luke

The primary concerns are the less-than-optimal presentation of the results, some questionable interpretation of the results and lack of synthesis of results in the Discussion.

Response: We have improved on the interpretation and the synthesis of the results

Major Compulsory Revisions

The first issue is that the prevalence of stunting is not presented obviously anywhere in the manuscript. What proportion of the children was stunted?

Response: We have included the proportion of prevalence of stunting in on the interpretation and the synthesis of the results

There lacks a detailed description of the statistical analyses employed in the Methods. The choice of some of the reference groups was not intuitive, eg, why was the poorest group selected as the reference group for the wealth variable? The use of simple logistic regression may not have exploited the data and the inter-relationships between the variables in the best way, ie, many of the variables are co-linear.

Response: We have improved on the statistical analysis. The selection of the reference was based on evidence from other studies. On the issue of co-linearity of the variable, a correlation analysis we carried out on variables such as region, ethnicity and we established weak and non-significant relationship.
The presentation of the multivariate models in one large table makes it difficult to really understand the models. In the Results section, the authors have chosen to (apparently) randomly restate values from table 1 – it would be more useful to present these data in a more summarized fashion.

Response: We have summarized the results to make it easy to understand the model.

The interpretation of the results was problematic in some instances, for example, claiming stunting was higher in the Guan ethnic group compared to Akan when the odds ratio was only 1.02 and not close to statistical significance. This is not correct interpretation and it occurs throughout the Results section. Also, the changing of odds ratios from one model to another is simply stated without any interpretation of whether the change was significant and in light of the differences between models. What does it mean to have these different models arrive at different odds ratios?

Response: We have improved on the analysis and interpretation of the results. Also, we have dropped the results with p<.10.

The Discussion, for the most part, is a restating of the Results without significant integration of the results. It is difficult to come away from the Discussion with a clear understanding of what the results of the analyses mean and how they could realistically be utilized for intervention or policy development.

Response: We have integrated the results with literature to make clearer and policy relevant.

The authors would like to thank the reviewers for their useful comments.