Reviewer's report

Title: Correlates of stunting among children in Ghana

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Reviewer: Amy Luke

Reviewer's report:

This study represents an analysis of Ghana’s Demographic and Health Survey in an attempt to identify determinants of stunting among children under 5 years of age. The idea behind the study is valid and could produce some interesting and meaningful results. There are, however, some serious concerns with the manuscript as written. 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.

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?

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.

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.

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?

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.
Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare I have no competing interests.