

Review of: "Spatially Weighted Multinomial Modelling of Comorbidity of Anaemia and Malaria among Under-Five Children in Nigeria"

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Potential competing interests: No potential competing interests to declare.

This is a well-written manuscript, assessing the risk of comorbidity among under-five children in Nigeria using the Bayesian approach. The methodology is detailed and well explained. I have comments on this work, mainly that:

Major comments

I had a problem understanding where this statement came from in the abstract 'States with low temperatures have a higher risk of comorbidity of anemia and malaria compared to states with higher average temperatures'. This statement is controversial mainly because the study did not have temperature as a predictor in the model. Also, what is a low temperature, and what is a higher temperature in this case?

Minor comments

- The risk of anemia is higher at 52%, while that of malaria was low at 5.6%; the authors need to provide an explanation for this marked difference in prevalence between the two infections.
- The authors should have also provided the geographic distribution of the areas with the highest risk of malaria only, as well as those with the highest risk of anemia only, so that the reader can understand if the risk of comorbidity did not exist in the areas where the risk of either anemia or malaria was highest.
- If the anemia risk was high in the areas that also had the highest risk of malaria, the findings could help in explaining causality, i.e., if malaria infections are the cause of anemia in the areas where anemia cases were found to be high.
- Otherwise, the work is well done, and there were few grammatical errors associated with tense in the study, such as in line...oops! Unfortunately, there was no line numbering in the manuscript.