

Review of: "Statistical Overview of Prevalence of Anaemia with Associated Socioeconomic and Demographic Factors in Nigeria"

Kirti Kirti¹

¹ International Institute for Population Sciences

Potential competing interests: No potential competing interests to declare.

Below are my observations:

The study tried to look at the risk factors for anaemia among children aged 6-59 months. It used a chi-square test to look at the association and logistic regression to look at the risk factors for the same.

1. In the abstract, the conclusion sounds more like a recommendation. Needs to be re-written.
2. The section heading "Research and Methods" needs to be changed. There is no such heading that researchers use in a manuscript. It should either be "Data and Methods" or "Methods."
3. Introduction needs to be re-structured, grammar checked, and made more specific in establishing the rationale for the study. Hence, define the research question and objective of the study.
4. The independent and dependent variables should be well defined and distinguishable. Try to give them a heading so that they are clearly visible to the reader, and explain how you have come to the categorization of all those variables.
5. How you have defined an individual as anaemic or non-anaemic needs to be clear in the manuscript.
6. Coming to the methodologies mentioned, the sequence of first defining that you have used logistic regression, then chi-square test, does not conform with the sequence of tables of results in the manuscript. In the results, you have first used a chi-square test, then moved to the results from logistic regression.
7. In section 3, you have again mentioned that you have used a chi-square test. Try not to repeat the same thing unnecessarily.
8. In section 2.2, you have mentioned that "chi-square test is a statistical tool used to assess if two categorical variables significantly correlate with one another." You cannot use the term "correlate" when you are talking about two categorical variables. Authors might want to re-write the statement and use "association."
9. Table 3.1: It is nowhere mentioned that you have used weighted or unweighted prevalence in the study. Since DHS datasets usually provide national level weights, it is recommended to always mention weighted prevalence, along with 95% CI.
10. In the hypotheses: H0: There are no significant associations between the variables; H1: There are significant associations between the variables. Spelling of "association" is wrong in the null hypothesis.
11. Also, association between "WHAT" variables?
12. Table 3.2 heading states that "Association between anaemia and socioeconomic and demographic variables and its

prevalence.” I cannot see any prevalence in the table; there are only frequencies. Add weighted prevalence and interpret the prevalence of anaemia by various background characteristics.

13. “The characteristics being considered include gender of the child, mosquito net usage, place of residence, wealth index, mother’s education, child’s age, and geopolitical zone.” However, in the table, place of residence is insignificant.
14. There is no section on discussion. The author might want to add another section called discussion or change “Conclusion” to a section named “Conclusion and Discussions,” as the authors really need to explain all the results.
15. Place of residence is not significant based on logistic regression results. Hence, authors really need to do their proofreading, grammar correction, and work on the whole structure of the manuscript.
16. For example, why northern Nigeria has a higher burden than the southern region? How mother's education plays a pivotal role in defining the anaemic status of their children? How the wealth index is playing its role in defining the condition?
17. Each and every result needs a proper discussion and justification for why such things are happening, along with proper references.