Reviewer's report

Title: Anemia and associated risk factors among school age children in Filtu town, Somali region, Southeast Ethiopia

Version: 1 Date: 27 May 2014

Reviewer: Saurabh Mehta

Reviewer's report:

Thank you for the opportunity to review this manuscript. The results are mainly interesting for highlighting the difference in prevalence of anemia across different regions. The correlation of anemia with low family income, undernutrition, and parasitic infections conforms to previously known associations.

My comments and feedback are below, in order of the text that they refer to in the manuscript.

Abstract
1. Please define anemia in the methods.
2. Please define cutoffs for mild, moderate, and severe anemia.
3. As this is a cross-sectional study, it is preferable to use the term correlates instead of predictors or risk factors, as the latter imply a temporal nature for the association. Please make this change throughout the manuscript.
4. Please define all the endpoints, such as underweight and stunting, the first time that they appear in the manuscript and in the abstract. The abstract should be a stand-alone document.
5. If you are referring to the WHO criteria for defining public health significance, please refer to them at least once in the document or mention what moderate means in the abstract.
6. Please rephrase the last sentence of the abstract.

Introduction
7. Please define what mild means in the last sentence on Page 2.
8. Please include a reference for 50% of anemia being caused by iron deficiency.

Materials and Methods
9. More details about the sampling would be helpful, including the number of schools surveyed.
10. Please include references for all the Hemoglobin cutoffs used.
11. Second paragraph on Page 4 - So were females between 12 and 15 years of age with Hb between 11.5 and 12 not considered mildly anemic?
12. Please clarify statistical analyses - it appears that the authors included all
variables with p-value less than 0.25 in bivariate regressions in their multivariate model and then retained those with p-values less than 0.05 using some form of a stepwise approach.

Results

13. Page 7 - Prevalence is 47% and n is 55 - please distinguish this in the rest of the paper.

Tables

14. Delete Table 2 - it doesn't add any information in addition to Table 3.
15. Please standardize the use of decimal places in the tables and the rests of the paper.
16. Please check the COR for Intestinal Parasitic Infection in Table 3 - it is listed as 2.3 in Table 3 and 2.5 in Table 2 with the same 95% CI and p-value.

Level of interest: An article whose findings are important to those with closely related research interests

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

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I collaborate with scientists at DSM Nutritional Products on issues around micronutrient deficiencies.