Reviewer’s report

Title: Dietary zinc intake and its determinants among Ethiopian children 6-35 months of age

Version: 1 Date: 20 Apr 2018

Reviewer: Ellen Francis

Reviewer's report:

General comments: There are no page numbers. Although the data and topic are interesting, the reporting of the study design and results lack clarity and could benefit from following a standard guide for the reporting of observational studies. EQUATOR provides some good resources.

Background

Page 1, Line 9: Define Zinc Deficiency

Methods

Include the number of participants in the survey and how many were included in your analysis. I would suggest using a multivariate model instead of a univariate model to better understand the total variation in zinc intake explained by the demographic and offspring characteristics.

Page 3, Line 29: list the determinates of zinc intake used in the model, how they were coded/categorized. For example, "we explored a number of sociodemographic and health variables such as: maternal age (continuous), number of children in the house hold under five, maternal education (high school graduate yes/no), socio-economic status (describe how this was coded) etc."

Results

Include actual values (%s, means, etc.) and p-values in the text of your results section.

If you write "more likely" then a test of likelihood should be ran and a p-value reported.

For example, "A majority of mothers/ care givers had low formal education level [report % here]."
"Women were more likely to be involved in unpaid family work than head of households" The 
data in Table 1 shows that the majority of women (77.1%) were self-employed not unpaid family 
worker (1.3%)

Page 3, Line 54: Remove the table title from the manuscript

Page 4, Line 5: Report values, for example "The prevalence of stunting was above the national 
level of XX% in the Oromia (X%), Amhara (X%) and Tigray (X%) regions"

Page 4, Line 14: Remove table title from the body of the manuscript

Page 4, Line 19-24: "We found no difference between urban and rural children in mean dietary 
zinc intake (XX versus XX, P=xxxx). It is not clear how you tested the significance of these 
differences.

In Table 3 you report standard error and confidence intervals but no regression coefficients. 
Also, it appears that something is incorrect with the statistical analysis since the lower and upper 
limits of your confidence intervals (CIs) are mostly identical. In addition if both CI values are 
greater than 0 then your estimate should be statistical significant. The p-value doesn't seem to be 
accurate based on the data being reported. If using regression as a statistical method, it appears 
that a reference group was not used when examining categorical predictors of zinc (i.e. maternal 
education level). Were chi-squares or regression models used to examine differences?

Page 4, Lines 32-40: Report values, significance tests, fix reference error, define the SNNPR 
region. Remove Figure title from the body of the manuscript.

Page 4, Lines 51-57: Report values, do not use the word "determining" when your data is cross 
sectional, use associated.

Table 4 is still missing regression coefficients for Child sex, Child sickness in previous 2 weeks, 
and Head of household education status. Remove table title from the body of the manuscript

Conclusion: "Zinc deficiency in 6-35 months age children is a risk factor for stunting in 
Ethiopia" I did not see an analysis the examined zinc intake as the independent variable and child 
height or stunting as dependent on zinc consumption. Although zinc deficiency is a common risk 
factor for stunting, the results presented in this manuscript do not support this statement.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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