Reviewer’s report

Title: PREVALENCE OF GOITER AND ITS ASSOCIATED FACTORS AMONG PRIMARY SCHOOL CHILDREN IN CHOLE DISTRICT, ARSI ZONE, ETHIOPIA: A CROSS SECTIONAL STUDY

Version: 1 Date: 13 Aug 2018

Reviewer: Hasina Rakotomanana

Reviewer's report:

I would like to thank the authors for considering the comments of the reviewers and for adjusting the manuscript accordingly.

Below are the detailed comments.

Abstract

Line 31
Check the use of space in "school-based" and "cross-sectional".
Replace "from" to "in".
Remove "5 to 25".

Line 33
Replace "the" by "a".

Line 34
Delete "from school children".

Line 36
Caregivers in one word.

Line 53
Consider rewording "access to milk was preventive…", can be misleading.

Introduction
Good and thorough background section.

Line 93
…leading to the leaching away of nutrients…

Lines 99-100
Sentence not clear. What do the authors mean by "…because of their accessibility through schools and physiological vulnerability"?
Replace "been accessed" to "access".

…the Government of Ethiopia has launched a five-year national plan to…

Delete "was initiated by".

Replace "of" by "living in".

…research-based evidence.

Methods

Consider rewording the word "climatically".

Double check spelling of number 113,789.

Define KG before using an acronym.

What are the "different techniques" the authors are referring to when assessing goiter? Only one was used and explained.

The questions were asked to 6-12 years old children. I wonder about the accuracy of the information, especially for the 6 years old. Should that be listed as a limitation of the study?

What are the "variables with theoretical associations with the status of goiter" that were entered in the multiple logistic regression model? Were they entered regardless of the significance of the results of their bivariate associations?

9.87 (SD 1.6) years.
Table 1: Socio-demographic characteristics...

Lines 244-245
Separate the proportions and state directly the group after the percentages to make it easier to read.

Table 2: replace "availability of iodized salt" by "iodine content of household salt"
Consider adding a superscript "during the past week" for the dietary recall variables.

How was the "access to milk question asked"?
Why did the authors not ask if the children consumed milk in the past week?

Figure 1: remove the decimals from the percentages.

Table 3: consider reformatting. Subheadings should have different formatting than the rest of the text in the table.
Not consuming cabbage was associated with higher risk of having goiter (AOR=2.2) according to table 3. Please double-check the results.

Table 4: why did the authors include the age of the children in the multiple logistic regression model even when it was not significant in bivariate analysis?

Double-check the results for "number of rooms in parents' house" as well as "consuming cabbage".

Here too, not having access to milk was associated with lower odds of having goiter (AOR=0.37), whilst it was the opposite in the bivariate analysis. Please double-check the results/analyses.

It is always a good practice to ask questions in local language regarding the history of goiter in family but I was wondering whether children aged 6-12 years would be able to recognize goiter in their household or whether they know any other relatives with goiter. What was the wording of the questions? It may also change the results if the children were asked at school and came home to ask their parents and came back with their answers. I think it makes a difference in identifying more accurately the history of goiter in the family.

Discussion

Line 307
Remove "rate" and "more".

Lines 328-330 needs a reference.

Lines 334-338
Move this to the first paragraph.
Line 341
…compared to their counterparts. This finding is in agreement…

Lines 340-342
Discuss this finding. Is it because of food insecurity or genetics? Or any other possible explanation?

Line 347
Reword "variation of economic standard", maybe replace with "wealth index"?
Discuss this argument more.

Line 354
...due to cabbage being a natural goitrogen food that contains…

Lines 350-357
What are the possible solutions and recommendations?

Lines 357-261
Double-check the results of "access to milk".

Line 362
Delete "one of the foodstuffs that are".

Line 367
Replace "were using sufficient iodized salt" by "had sufficient levels of iodine in their salt".
Do the authors know of any reason why the iodine content in salt were low? Storage? Iodization not efficient? What are possible solutions?

Conclusions

Lines 392-397
These are good suggestions, I recommend inserting them in discussion section and discuss them more in details.

Please double-check and organize reference list as per the Guidelines for Authors.

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

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Unable to assess

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