Reviewer’s report

Title: Prevalence and associated factors of anemia among adolescent girls attending high schools in Dembia District, Northwest Ethiopia, 2017

Version: 0 Date: 29 Aug 2018

Reviewer: J. Janbek

Reviewer's report:

- It is very well described, especially methodology and sampling. However, the language is broken and there are a lot of spelling as well as grammatical mistakes which at some places, makes sentences difficult to understand. Needs a thorough language check.

- For study participants and sampling procedure p. 5: Have you considered making a flow diagram of the sampling and exact numbers of excluded/included participants (e.g. at the end of this section, the sentence "Adolescents who were pregnant and on treatment for anemia were excluded..", how many are those?

And do you have data on some baseline characteristics of those not included in the study to compare whether or not they were different than those who responded and are included in the study?

And have you considered to present these baseline characteristics (tables 2-5) per exposure group? Those with anemia and those without, and possibly then those with different severity stages of anemia.

- On choice of characteristics and information on the sample population, was it possible to collect smoking status of these girls? Might be relevant in relation to Hb levels just as menstruation is.

- On p.6 at the start of the section "Description of variables": Very well described variables and clear what each means. When anemia was defined under 12 g/dl, please state the reference, is it according to WHO definition? The same applies on p.10 under "Prevalence of anemia": what are the cut-off values you based your categorization of severity stages on?

- Lastly, I would encourage you to look into the issues surrounding using ORs as estimates in a cross sectional study, caution needs to be taken in the way it is interpreted, where language that states "risk" in any way should be avoided, since in cross sectional studies, both exposure and outcome are measured at the same time. Alternatively, prevalence ratio (PR) is suitable, however the 2 are often confused between, and ORs might give and over or under-estimation of the true associations depending on the prevalence of the outcome (25% here). I refer to this article:

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