Reviewer’s report

Title: Association between Schistosoma mansoni infection and access to improved water and sanitation facilities in Mwea, Kirinyaga County, Central Kenya.

Version: 0 Date: 11 Nov 2018

Reviewer: Guéladio Cissé

Reviewer’s report:

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This paper addresses the links between Schistosoma mansoni infection and access to water and sanitation in Central Kenya. The topic is important and there is need of generating knowledge on these links from different socio-ecological contexts.

It provides recommendations based on the results and will probably contribute in improving the preventive measures against Schistosoma mansoni in the targeted region.

There are a number of variables related to behaviors that could have been also considered and there are a few clarifications needed at certain.

See the specific comments below.

Materials and Methods

Study area

Page 7: A map would be helpful to see the location of the villages relatively to irrigation fields and surface water bodies. More information about the background would be good. Example: as the MDA and the SBDP are mentioned in the Background and in the Conclusion, what is the situation related to these in the study area?

Variables

Page 8: Why the study did not ask questions related to behaviors? Examples: hand-washing, open defecation, etc...
Results

Demographic information

Page 10, Line 4. The final number of participants is lower than the target sample size (page 7): what are the events that explain this shortage.

Household water sources ...

Page 10: here some results about hygiene behaviors would be good (e.g. hand-washing, open defecation)

Association ...

Page 12. Lines 27-39: these results related to piped water and water in premises may deserve clarifications under Discussion.

Discussion

Page 13. Lines 46. The mention of MDA here adds to the interest of indicating the clear situation about it in the study area among the Background information.

Page 14. Lines 4-9: More important to recall the link with Schistosoma mansoni as the next sentence will be reminding from other studies.

Page 15. Lines 21 - 24. The mention here of "behavioral factors" and "open defecation" reminds again how interesting it would be if the authors had collected data about these and analyzed them also.

Page 15. Lines 34 - 49. If behavioral factors (e.g. hand-washing and open defecation) have not been considered, this could be listed among the limitations and recommended for future researches.

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.

No
Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

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 recommend additional statistical review

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Please indicate the quality of language in the manuscript:

Acceptable

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