Reviewer’s report

Title: Prevalence and associated factors of safe and improved infant and young children stool disposal in Ethiopia: evidence from demographic and health survey

Version: 1 Date: 10 Jun 2019

Reviewer: Reviewer 2

Reviewer’s report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

Yes - experiments and analyses were performed appropriately

STATISTICS - Is the use of statistics in the manuscript appropriate?

Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

Yes - the author's interpretation is reasonable

OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?

Yes - current version is technically sound
GENERAL COMMENTS: My overall impression is the study has highlighted an often overlooked aspect of hygiene and sanitation practices among populations. Authors have that the prevalence of safe/improved disposal of child stool is very low across rural and urban settings in Ethiopia. They have also shown the importance of considering child stool disposal as an integral component of programs targeted for the elimination of open defecation.

The authors have done well by using an efficient source of data to achieve a large scale representation of the target population and have employed a standard tool for assessment of the study variables. They have also expressed important cautions to be considered as limitations of the study.

This study had met international best practices

REQUESTED REVISIONS:

ABSTRACT

Line 21: ":…conducted in 2016 was used for…"

Line 67-8: "Children's what? There seems to be something missing in the sentence. Please revise the sentence for correctness.

METHODS

Line 107: Do you mean, "…selected from the newly updated listing…"?

Line 112: Do you mean, "…of the last passed stool with respect…"?

Line 142: Correct to, "Chi-square test was also…"

Line 150: Correct to "tests".

RESULTS

Line 172: The logistic regression analysis parameters stated for Addis Ababa do not correlate with the figures provided in Table 4. Please verify accordingly.

Table 4: Do you have an intended meaning for the "(4143)" indicated in "Mother's age (4143)"?

Line 223-225: when there is improper child's stool disposal in the community, both adults and children are at risk of enteric disease infection and not just the children alone.
Line 230: Correct to "...lack of sanitation is widespread."

Line 240-1: Please revise the sentence for correctness and clarity.

**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.

Yes

**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 am able to assess the statistics

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

Acceptable

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?
5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

This reviewer has been recruited by a partner organization, Research Square. Reviewers with declared or apparent competing interests are not utilized for these reviews. This reviewer has agreed to publication of their comments online under a Creative Commons Attribution License attributed to Research Square and was paid a small honorarium for completing the review within a specified timeframe. Honoraria for reviews such as this are paid regardless of the reviewer recommendation.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal