**Reviewer’s report**

**Title:** Factors associated with tungiasis among primary school children: a cross-sectional study in a rural District in Rwanda

**Version:** 1  **Date:** 29 Jun 2019

**Reviewer:** OYelola Adegboyе

**Reviewer's report:**

This is a very interesting study and relevant to the scope of this journal. The authors conducted this study in rural Rwanda on the incidence rate of Tungiasis in school children and their associated risk factors.

Major Comments:

1. The authors continuously refer to incidence (number of new cases divided by number of people at risk) as prevalence (total number of cases in a population divided by the total population). This should be corrected.

2. Page 3: If the presented results are based on multivariable logistic regression, then present the adjusted odds ratio as aOR.

3. Line 20-40: The description of the statistical techniques is cumbersome. The two-step analysis is not clear. The authors said "When carrying out logistic regression, two models were created based on the type of variables."

Please revise this part. You may replace line 20-40 with the following:

The association between independent variables and outcome was analysed using logistic regression. Bivariate logistic analysis was used to determine the strength of association between independent variables and outcome at the first instance. Variables with significant association in the bivariate analysis were included in the multivariable logistic regression. The independent variables were grouped into two categories: potential factors leading to tungiasis such as dirty feet or clothes and consequences of tungiasis such as poor performance at school. Two models were formulated based on the two types of variables, the results were presented as adjusted odds ratio (aOR) and 95% confidence interval (CI).

4. Page 12 Line 24: This study on prevalence and factors.....

The results presented in this study were not based on prevalence, the authors did not present any prevalence rate of tungiasis rather they presented incidence rate of tungiasis. If they want to present prevalence, they will need to adjust for the population of the study area.

5. Page 13 line 20: 87/384 (23%). This is not a prevalence.
Discretionary suggestion

Strengths and limitations could come at the end of the discussion. Also, there is no need to have subheadings for "Strengths and limitations", and "Comparison with other studies" in the discussion

**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.

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?**
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I am able to assess the statistics

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Acceptable

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