Reviewer’s report

Title: Investigation of Household Contacts of Pulmonary Tuberculosis Patients Increases Case Detection in Mwanza city, Tanzania

Version: 1 Date: 08 Nov 2017

Reviewer: George Praygod

Reviewer's report:

Abstract

Discrepancy of the yield of contact tracing reported in abstract and in the results section (7% vs 6.4%)

Methods and Results

Most of the methodological issues queried in the first review have not been adequately addressed. This include the following:

- Since this is cross-sectional study, the readers will be interested to see if these results are representative of the Mwanza city situation. The authors should justify why only a few TB clinics in Mwanza city were involved in selection of index TB cases as this has a potential to produce findings which are only applicable to parts of the city.

- The selection of household contact is not well explained. If the TB index household had more than one contact, how many contacts were selected and how was the selection done? If some people living with TB index case were not at home at the time of the visit, how was this handled? In other words, are the household contacts selected in this study representative of all the household contacts in Mwanza city? Also, it would be nice to say how many contacts were invited and how many consented to be included in the study for readers to rule out bias. This will help readers to judge if the contacts sample drawn can be taken to be representative of TB contacts in Mwanza.

- It seems that the study inclusion criteria were not the same for adults and children (which is fine). Adults were only included if they provided at least one sputum sample, but children were included even when they did not produce sputum (this is understood because it is not easy for children to produce sputum). I think authors need to include the section on inclusion and exclusion criteria so that it becomes clearer for readers as to how potentials participants were included.
- In lines 36-44 (page 3), it is not clear what nurses collected and how they collected the data. We see what was collected in the results section, but would be nice to include this information in this part of your manuscript so that people can judge and see if the data collected is valid. For example, how the nurses ascertain that contacts had weight loss, were smoking or lived more than 1 km from health facility. I would be nice to described how weight loss and smoking status were determined (ever, past or current). Authors should how data included in the analysis were collected.

Discussion

Lines 58-60: explanation given on why people who eat less than 3 meals a day have more TB is not adequate and should be expanded.

Section on limitation should be expanded. For example authors should include possibility of bias in contact tracing and confounding

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.

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 am able to assess the statistics
Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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