**Reviewer’s report**

**Title:** Comparison of indoor contact time data in Zambia and Western Cape, South Africa suggests targeting of interventions to reduce Mycobacterium tuberculosis transmission should be informed by local data

**Version:** 0  **Date:** 27 Nov 2015

**Reviewer:** Gregory Fox

**Reviewer's report:**

This cross sectional study among a stratified random sample of people from Zambia and Western Cape explores the location and duration of contact with others. The manuscript is well written, and the methods are generally clearly described.

**Major comments:**

1. How did the authors define "building" in the questionnaire? For example, did this refer to open eating areas, or only to dwellings with four walls?

2. Are the definitions of building type comparable between these two settings. For example, are churches, hairdressers or workplaces likely to have similar ventilation in these settings? Potential differences could confound the extrapolation of these data to TB transmission risk.

3. While this study explores contact among otherwise healthy individuals, the social mixing patterns of symptomatic TB patients may differ. This is difficult to measure, but could potentially reduce the generalisability of this study to TB transmission (for example, sick TB patients may be more likely to stay at home, less likely to work and more likely to be in a clinic environment). This should be noted.

4. It would be helpful to have validated this method, to establish whether recall bias was a problem (for example by performing a prospective 24 hour diary record of locations visited). Has this been done using this method in this, or other settings?

5. Another interesting finding is that over 50% of subjects did not leave their houses - which seems to contrast with molecular epidemiological studies in southern Africa showing that little transmission occurs in the household. The authors may consider noting this discrepancy.

**Minor comments:**

1. The p-values for bars was missing in Table 1
2. The number of significant figures used in Table 1 vary, and should be uniform.

**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

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