Reviewer's report

**Title:** Evidence for reductions in sexual risk behaviour associated with the use of voluntary counselling and testing services for HIV: observations from a cohort study in rural Tanzania

**Version:** 1  
**Date:** 20 October 2013

**Reviewer:** Carla van Tienen

**Reviewer’s report:**

In this paper, the authors aim to assess the changes in sexual risk behavior between people who seek VCT versus those that do not in in a community in rural Tanzania. It is a timely paper and of interest to readers in this field, but it could be improved on some points.

**Major Compulsory Revisions**

1. It is not clear how many people were eligible for the serosurveys. It is stated appr. 32,000 people live in the study area, but how many of these are adults? How many participated in the 3 surveys and of these, how many participated in 2 or more surveys? Please give these numbers plus percentages. Percentages should also be added to the start of the Results section, first three sentences in the first paragraph.

2. Please briefly describe how HIV screening and confirmation tests were performed and which test were used.

3. Has the HIV incidence over the 3 surveys been published yet? If yes, please give the numbers and indicate which risk behavior was associated with acquiring HIV. If these numbers have not been published, it would be important to add them to this analysis. In the end, the most important aim of VCT is to reduce risk behavior and to prevent becoming HIV infected (and prevent onward transmission to others).

4. The title suggests that VCT in this study only showed a decrease in risk behavior, but this is not what the data suggest (e.g. increased likelihood of stopping using condoms with regular non-cohabiting partner and results that are open for interpretation). The title should be adjusted accordingly.

**Minor Essential Revisions**

5. Please report the number of missing data per characteristic in the tables (e.g. there are missing data in Table 1 for no. of sex partners, marital status, regular non-cohabiting partners, high risk partners and ever used a condom).

6. Could the authors comment more on the people who participated in all three surveys and underwent VCT more than once? How did this influence the
outcomes?

7. Could the authors give some more details on how the VCT was performed, how much time it took, what questions were asked (perhaps a document has been published previously or otherwise it could be uploaded as an additional document?), were these different from the questions asked in the serosurvey etc. Since this is the backbone of the paper it seems important to give this more attention.

8. Results section, paragraph 3: aRR 1.43 refers to aRR 1.42 in Table 2. Please correct.

9. Please state in the abstract the number of participants and the number of people that was HIV+ and HIV-.

10. Please indicate what percentage of HIV positive persons were on ART at the end of the last survey as this is an indication of the roll-out of care in the village and seems important for the uptake of VCT.

Discretionary Revisions

11. Introduction, at the end of the first paragraph, could the authors give a clearer summary of the previous findings of the impact of VCT on sexual risk behavior.

12. I think the Discussion and Results could be more concise. The tables are very clear and don't need a lot of explanation in the Results. The Discussion can be shortened, but please include comments on (changes in?) HIV incidence.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.