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: 24 October 2013

Reviewer: Mirjam Irene Bakker

Reviewer’s report:

The authors present results of an observational cohort study in which participants were tested for HIV during at least two consecutive surveys and interviewed about their sexual behavior. Those attending VCT are compared to those not attending VCT on several outcomes related to their sexual behavior. The study presents two separate ‘cohorts’.

Major revisions

Title:
1. The title is phrased too strongly and should be adapted.

Abstract
2. The authors do not mention the increased likelihood of stopping using condoms with regular non-cohabiting partners among HIV negatives.

Background
3. The authors should refer to the systematic review performed by Fonner et al published in 2012. This paper showed VCT can change HIV-related sexual risk behaviors (decrease in number of sexual partners and increase use of condoms) especially among HIV positives.
4. The paper of Fonner et al (2012) also states studies should be conducted to understand which modalities and counseling strategies produce significant reductions in risky behaviors and lead to the greatest uptake of VCT. The paper would become more interesting if the paper could address this topic.

Methods
5. How did the project link the sero-survey with VCT attendance? Especially during the later years when VCT became available in the village, and pregnant women were tested as part of ANC.
6. When should VCT have taken place for a participant to be part of the VCT group? Directly after the earlier sero-survey or any time between the earlier and later sero-survey?
7. Could participants have received their HIV result without post-test counseling? This could especially have happened during sero 5 and sero 6 when on-the-spot
rapid tests were performed.

As a result of the observational nature of this study those opting for VCT may be different in other aspects as well. The group choosing to have VCT (only 10-17% of the population) is a selective group of people usually with a special reason to do VCT. A common reason is, as the authors also indicate, to have an HIV test done before marriage, another important moment is ANC. Some of the changes seen in the ‘outcomes’ could be explained by this. Just adding marital status at baseline to the model does not correct for this.

8. Could the authors perform the analysis excluding those who got married between the sero-surveys?

The paper only presents the relation between the use of VCT and sexual behavior change. The authors also know the HIV status during the later survey.

9. Did the authors study the effect of VCT on HIV incidence and specially looking at those showing a change in sexual behavior? This would make the paper a lot more interesting. I could imagine HIV incidence is too low and/or sample size is too small, but would like to hear the authors view point on this.

Results

10. To get a better idea how similar or different those with VCT compared to no-VCT group are, the authors should show the characteristics in Table 1 for VCT versus non-VCT at sero 4 and at sero 5 (‘baseline’).

11. Please explain why the results on condom use are only available for 179 participants in table 2 and 75 in table 3, while 519 and 229 had a regular non-cohabiting partner in the last year (later round) (table 1). Who were included in this analysis? only those with a regular non-cohabiting partner in the last year during the first round? Why are these data not presented in table 1?

12. The analyses are adjusted for ‘reported use of VCT outside of sero-surveys’. Please explain this variable a bit better (also in relation to point 5) and add this variable to table 1.

13. Why were participants using VCT outside the sero-surveys included in the study as such? Why were these participants not grouped among the ‘VCT-users’?

14. How many participants were included in both periods? How many of those included in both periods, went for VCT during sero-4 AND sero-5? How were those classified who went for VCT in sero-4, but not in sero-5?

Discussion

15. The issue of selection bias should be much more prominently discussed.

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