Reviewer's report

Title: Impact of Antiretroviral Therapy on Fertility Desires Among HIV-Infected Persons in Rural Uganda

Version: 1 Date: 30 July 2011

Reviewer: Landon Myer

Reviewer's report:

Major Compulsory Revisions
1. Strengthen literature cited (does not need a literature review, but recognition of previously published work on this topic)
2. Add data on sexual behaviour and condom/contraceptive use, as available
3. Expand the discussion to recognise alternative explanations and limitations in more detail (see below)

Major Compulsory Revisions
1. There are many ways to measure desire for future children. Instead of a throwaway sentence on statistical methods (which are OK, but generic) rather say in the abstract how fertility desires were measured.
2. The abstract needs to provide the crude and adjusted association between fertility desires and HAART use
3. The conclusions should be more generalisable than one district if this is going to be published internationally – delete sentence about district health system

Introduction
4. The sentence, “In African societies women are often valued by their ability to bear children and a very high social good is placed on fertility; therefore, the pressure on women to have children is very high.” Must be referenced
5. The language around an hiv-positive child being a “tragic situation” is judgemental and should be omitted. Similarly, the “impressive” figures referred to earlier on needs to be toned down.
6. The sentence “However, the authors of this study did not link MTCT risks with the outcome of HAART (e.g. if viral suppression was achieved or not).” Does not fit into this paragraph, its not clear what the authors are getting at.
7. There is a pan-african study on fertility and HAART use – see Myer in PLOS Medicine 2010 – that clearly needs to be in the introduction as it addresses this issue directly
8. The sentence “We conducted a literature review using the PubMed database with the key words “HIV”, “mother-to-child transmission”, “antiretroviral therapy”, and “family planning”.“ Needs to be deleted. This is not a systematic review. The introduction needs to introduce the key themes of the paper quickly and state the
objectives of the study.

9. These data are quite old, and this needs to be mentioned in the discussion section. Times have changed considerably with respect to ART use in Uganda.

Methods

10. The “Objectives” subsection needs to be incorporated into the last para of the intro

11. “clinical AIDS stage” is called the “WHO stage” (there are other systems for ‘clinical AIDS staging’, eg, CDC’s system)

12. The sentence “we did not sample our participants for selection” makes no sense whatsoever.

13. More detail is needed on sampling – was this really a 100% sample of all eligible individuals? If not, procedures need to be detailed.

14. The post hoc power calculation is not appropriate and must be deleted.

15. alpha of 0.05 was used (standard); were all tests 2 sided?

16. Overall, the methods are nicely described – sufficient detail to understand what happened (including the quality of the measures) but not over the top.

Results

17. The discussion needs to be separated from the results. Results present only study data analysis. Discussion presents only the authors interpretations of the results presented.

18. Was there any difference between respondents and non-respondents? Were male participants significantly older than women (can add ttest or rank sum to statistical methods…) Did pregnant participants have a higher or lower prevalence of fertility desires?

19. There must be data on sexual activity as well as condom/contraceptive use in the sample - these are directly relevant, and need to be brought into the analysis

20. Duration of HAART (for those on HAART) needs to be presented. In Uganda in 2006, the average duration must be quite low (1-2 years) which is important to interpret the results. Was duration of HAART use (among those on HAART) associated with fertility desires? Most other studies have found this.

Discussion

21. The discussion section needs to start with a new heading before “This cross sectional study….”

22. As alluded to above, one very plausible explanation for the lack of an association between HAART use and fertility desires is the short average duration of HAART in this study. This needs to be explored in more detail.

23. These data are form 2006, and the discussion needs to talk about how these issues may have shifted over time.

24. Throughout the manuscript, I am surprised by lack of attention to (a) sexual activity and (b) contraception/family planning concerns. Even if data on these
were not collected, the issues about increasing sexual activity with HAART use, and increasing need for family planning (esp given the lack of increasing fertility desires with HAART use, suggested here), must be mentioned.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

No competing interests.