Reviewer's report

Title: HIV Testing Awareness and Service Uptake Among Female Heads of Household in Rural Mozambique: Results from a Province-wide Survey

Version: 2 Date: 27 September 2014

Reviewer: Denis Nash

Reviewer's report:

This is a very important and well-written manuscript. I include some suggestions for the authors to consider that could potentially improve it.

Major compulsory revisions

1. Abstract, Methods: Two stage cluster sampling of what exactly? Households? Is this a population-based study of female heads of households? If so, that is a major strength and would state it somewhere. It was hard to get a sense of the survey population from the abstract.

2. Background: How available is VCT in Zambezia really? Is it unreasonable that so few women would know about it? Of course you can work on expanding awareness, but it may also be an issue of expanding VCT. Regarding conclusions, is there a need for VCT expansion? community-based or home-based testing?

3. Methods: What was the response rate and participation rate among households sampled and approached? This should be reported, so that the reader can gauge representativeness and the potential for the introduction of bias due to refusals. In other words, how did you get to 3,749 interviews? Can the authors speak to the representativeness by comparing to say, census date for the province?

4. Methods, line 191: This seems to contradict the information in line 188 which states that those unaware of VCT were in fact included.

5. Results (line 223): why are unweighted results presented. This seems confusing to me. Wouldn't you want to weight results so that they would reflect the target population vs. sample?

Minor essential revisions

1. Address the issue of self report limitations (e.g., people saying they are aware because they know that is what is expected. Conversely, people saying they are unaware because they don't want to answer survey questions). Also, social desirability bias, and the fact that women may be afraid to say that they got an HIV test.

2. Is prior testing synonymous with VCT? i.e. could prior testing be from PMTCT or PICT? By prior VCT, do the authors really just mean HIV testing? Along these
lines, how is VCT defined? Does PMTCT=VCT? Does PICT=VCT? Might be good to include a statement about this.

3. How was HIV status taken into account? with a prevalence of 12.6%, there would be some HIV+ women in the survey, and some of these women may or may not be aware of their status. If this was not taken into account, it should be addressed as a limitation.

Discretionary revisions
1. Abstract results: It would be helpful to convey the strength of the associations in the results (e.g., report the ORs or percents).

2. Abstract conclusions: Is social marketing the only way that VCT uptake can be improved? This may be right, but the results did not prepare the reader for a conclusion about social marketing. What do the authors make of the language findings, for example?

3. Methods: It would be helpful to know how variables were selected for the analysis, as there are many (18 of them). Was there a theoretical framework (line 192). How, for example, did the investigators ensure that they were not over controlling the associations of interest?

**Level of interest:** An article of outstanding merit and interest in its field

**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