Reviewer's report

Title: Scaling up HIV counselling and testing for pregnant women to the community level: experiences from a community-based study in Northern Vietnam

Version: 1 Date: 4 January 2010

Reviewer: Gita Sinha

Reviewer's report:

1. Is the question posed by the authors well defined?

I believe the study question is generally clear, but could be revised to be more precise.

The term “quality” is a very general term; defining it in the study’s context would be very important. In this study, the term “quality” appears to refer to overall “characteristics” rather than to the indicators for a standard of service or care. For example, are there standard HCT quality indicators in the literature or among policymakers that are a guide? It may be necessary to acknowledge the limitations of the study to capture all indicators of quality, and/or to justify why the specific indicators were chosen in this study.

(Major Compulsory Revision) I would suggest defining “quality” in the background and methods section, including clearly stating the outcome variables of interest in the description of analytic methods.

(Discretionary Revision) I would also suggest, in the discussion/limitations section, based on this study’s findings and some of the existing literature, to describe whether there are additional aspects of uptake and quality that should be addressed as other HCT programs scale up in Vietnam or globally.

2. Are the methods appropriate and well described?

a. Regarding the study setting: (Major Compulsory Revision) Because the authors refer to their findings in the context of scaling up HCT into more local HFs, I suggest they provide more background details on the history of HCT services in the study setting. For example, how many HF’s offered HCT at the start (2004), how many and what type (primary/secondary/tertiary) were offering HCT at the time of the study.

b. Please see the additional comments above regarding defining quality as used in the analysis section.

3. Are the data sound?

a. Background descriptive data: It is at times confusing to go to the HF-stratified data directly to get an idea of the characteristics of the overall study sample.
Table 1 should be made more informative with the sample’s background socio-economic characteristics, and also specifically the distribution of HCT by HF type (see b) below) and by gestational age (see c) below). Beyond adjusting for socioeconomic variables, this would help clarify that there are no distribution biases in the study sample that might impact/confound the statistically significant differences in primary versus higher HF level HCT utilization findings (Table 3).

b. (Major Compulsory Revision) I would recommend incorporating statistical testing for significant difference in the distribution of HIV testing by HF type (Table 1). For example, a comparison of proportion of the sample using testing at primary levels versus higher levels: is there a significant difference? Could this or did this impact the ensuing findings of the characteristics or quality of the testing? My initial presumption reviewing the data is that there is no significant difference or impact, but I think the authors should include the relevant statistical testing to help justify this.

c. (Major Compulsory Revision) I would also recommend including in Table 1, the proportion of women who were tested according to gestational age (i.e. <34 wks, >34wks, or at L&D), with relevant statistical testing, to clarify its distribution in the overall sample.

d. (Major Compulsory Revision) The description of the analytic approach in the text of the Methods section must be made clearer. On reviewing the data, it appears to me that the authors did an analysis of the crude odds of primary versus higher HF-level HCT, by subgroup category only. For example, primary education level was compared against university level education, but not against the other categories of education, in both the crude and adjusted odds ratio analyses. Logistic regression models were used to adjust within each of these sub-categories in a pairwise fashion, it appears, after adjusting for some socio-economic variables. After confirming this with a PhD level statistician in our group, I would say that this is not a sound approach to the analysis. Rather, logistic regression analysis should be used within each characteristic category, to calculate crude and adjusted odds ratios for all subcategories of the listed characteristic.

(Major Compulsory Revision) A more sound approach would be to construct logistic regression model(s) incorporating all of the indicators (rather than just paired sub-categories) and determine whether the characteristics are statistically significantly associated with primary versus higher HF-level utilization.

e. Regarding the presentation of “quality” indicators in Table 3: pre- and post-Test counseling are listed as separate categories. Most HCT policies state that an HCT quality indicator would be the receipt of both, rather than just one or the other. (Major Compulsory Revision) The authors should include a measure of the proportions of women who received both, by facility type, and make some ensuing conclusions on how that reflects on the quality of HCT received. The alternative is that the authors provide statements/ established guidelines to indicate that their chosen quality indicators are otherwise justified.
4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

This is overall an observational comparative study with a convenience sample design, rather than a trial design that would warrant adherence to existing reporting and data deposition guidelines. However, there are some issues with the presentation of the data for which I would make the following comments/suggestions.

a. (Major Compulsory Revision) I would recommend in the text describing the Results to clearly “walk the reader” through the Tables and include the relevant statistical testing for Table 1 as well as the subsequent Tables, in the text itself. For greater clarity, and because there are no major space considerations, it is useful to include text-described data in the tables, and vice-versa. (See points in #3 above)

b. (Major Compulsory Revision) The authors need to either correct or clarify Table 2 for the referent category in income level. All the sub-categories have odds ratios listed to them, rather than a referent sub-category against which all the others are compared for HCT utilization.

5. Are the discussion and conclusions well balanced and adequately supported by the data?

a. As the analytic approach does not appear to be sound, it is difficult to say the ensuing conclusions are supported. I think the authors need to be a bit more objective in any conclusions, because their study lacks a comparison group to demonstrate clear differences in uptake of HCT, and as stated there are potentially significant differences in both the study community and sample from other populations in Vietnam. Also, they did not include a comprehensive list of quality indicators in their analysis. (Major Compulsory Revision) I would suggest that the authors revise their analysis to confirm their conclusions, and clearly explain how their data support their conclusion but also include a discussion of future issues/indicators/research that would be needed to better prove that the scale up in accomplishing its goals.

6. Are limitations of the work clearly stated?

a. (Major Compulsory Revision) Limitations of the study sample: In addition to the limitations described, the lack of an external, community-based comparison group also limits the ability to generalize the findings. For example, what is the overall antenatal/HCT utilization and characteristics among pregnant women who are not part of a “scaling up” community? Are there historical confounders or external confounders that may be influencing pregnant women to seek testing in higher numbers, even in places where primary facility testing is not available? This warrants additional discussion by the authors.

7. Do the authors clearly acknowledge any work upon which they are building,
both published and unpublished?

The cited references are appropriate to the authors’ discussion points.

8. Do the title and abstract accurately convey what has been found?

(Discretionary Revision) The title could more clearly convey the key findings from the study, depending on what a revised analysis reveals. The title could describe the study’s key findings, such as “increased and earlier uptake of HCT among women accessing primary versus higher-level antenatal care during pregnancy in Vietnam” --- a title that conveys the key findings would more directly convey the importance of the study.

(Major Compulsory Revision) I suggest that “quality” as a term, if it is still used in the revised manuscript, needs to be very clearly defined in the abstract as well as throughout the paper. An alternative approach would be to define the key outcome variable(s) of interest, (such as utilization of testing, etc.), in the abstract’s methods/analyses description, rather than refer to “quality” as one of the studied outcomes.

9. Is the writing acceptable?

(Minor Essential Revisions) Overall the writing/language is clear; a few minor grammatical English corrections should be made throughout the paper. The use of the term “quality” should be clarified, as I referred to above.

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

Please refer to my comments above for suggestions for revision and their relative importance.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.