Author's response to reviews

Title: Early uptake of HIV counseling and testing among pregnant women at different levels of health facilities - experiences from a community-based study in Northern Vietnam

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Letter to the Editor (15th October 2010)

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First of all, we would like to thank the Editor and the Reviewer for commenting on the 4th version of our manuscript. We have revised the manuscript accordingly. Please note that the page numbers given refer to page numbers in the revised and resubmitted version of the manuscript. We have used track changes to show all the changes of the manuscript.

Comment 1:

Table 1 is presented as background information. It would be useful to know what proportion of women in each group were positive or negative for each independent variable of interest? which the authors have calculated ORs for? and I encourage the authors to include this data. In Table 1, two additional columns could be added: one for the number of women in each group which are positive for the outcome variable of interest and the number of women that are negative for the outcome variable of interest.

However, this will increase the amount of tabulated data considerably. With this additional information the reader would be able to make statistical comparisons of proportions if they were interested in doing so. However, I do not think it is necessary for the authors to present any comparative statistics for proportions. If any statistical comparisons of proportions are to be presented, an exact test
should be used in preference to a chi-square test although the latter would be acceptable in most cases.

Response:

- We have revised Table 1 and added the main independent variable of the study namely “Uptake of the first antenatal HIV test” and calculated p-values. The other independent variables of the study such as “Types of health facility” and “Provision of HIV counselling” are presented in tables 2-4.

Comment 2:
No comment from the Reviewer.

Comment 3:

The authors appear to have calculated crude ORs using the figures for records giving crude OR and adjusted OR as 1 as the comparator group, although this is not stated explicitly. It is not clear how the adjusted ORs have been calculated and the footnote does not help in this regard. This certainly needs more explanation. The authors state that adjusted ORs were calculated using all variables under study in Methods, Data analysis. The reader will want to know explicitly what categories have been entered for each additional variable... are they the same as those presented in Table 2?

I agree with Dr Sinha that variable categories must be consistent between text and tables. In this regard, there seem to be inconsistencies between Table 1 and Table 2. Why, for example, under occupation, is there a category of 'no job' instable 1, but not in Table 2, and why is there a category of 'housewife/unemployed' in Table 2 but not Table 1.

The presentation of ORs and adjusted ORs in Table 2 needs to be tidied up. On the version I have printed, there are crossed out P-values and missing data for confidence limits.

Response:

- We have revised Table 2 and explained our analytical approach in the Methods section, Data analysis: “The women’s socio-economic characteristics and their gestational age at first antenatal care visit are presented in relation to types of HF where the first HIV test was performed. Crude odds ratios (OR) were calculated using “Types of HF for the first HIV test” as independent variables and the socio-economic characteristics and gestational age at first antenatal care visits as dependent variables (Table 2). To adjust for the potential confounding effect of socio-economic characteristics, backward stepwise logistic regression was performed where the variables found to be significant at a p<0.05 level in the bivariate analyses (educational level, occupation, residence and monthly income) were included in the final model. The text in the section named Data analysis have been revised to clarify the analytical approach.

- We have revised the misplaced decimal points and tidied up all tables.

- We have added a note under Table 2: “* Adjusted for the effect of educational
level, occupation, residence and monthly income”.

Comment 4
No comment from the Reviewer.

Comment 5
I think Dr Sinha is referring to Table 3, not Table 4. In which case, I agree that the authors have explained their methods adequately. However, there is some confusion in how they have calculated the adjusted OR for time of first ANC visit. The asterisk at the head of the adjusted OR column states that adjusted ORs were calculated by including time of first ANC visit as a variable. This should not be the case when the time of first ANC visit is the dependent variable. This problem could be solved by placing the asterisk against the adjusted OR for the type of HF.

Response:
- In the method section we have explained our analytical approach a bit more detailed: “types of health facility and provision of HIV testing result is described among women who had their first HIV test before 34 weeks and women who had their first HIV test after 34 weeks gestation. To describe the association between timing of first HIV test and types of HF for first HIV test as well as the association between timing of first HIV test and provision of HIV information at first antenatal care visit, crude ORs were calculated using “Types of HF for first HIV test” and “The provision of HIV information” as dependant variables while “Timing of first HIV test ” was included as independent variable”.
- In table 3, we have moved the variable “Time the fist ANC visit”, and added another variable: “The provision of HIV information at the first antenatal care” as an independent variable, a factor which may effect the early uptake HIV testing among the women.

Comment 6
The authors state that adjusted ORs were calculated using all variables under study in Methods, Data analysis. I presume this applies to adjusted ORs in Tables 3 and 4 too. If not, the authors should say so. One presumes that the independent variables in these analyses did not include the dependent variable. My impression is that the authors have used appropriate statistical techniques. However, I recommend that the authors state explicitly which variables and categories within each variable have been used for each adjusted OR calculation. This could easily be done in an additional table. This will overcome some of the confusion that has occurred over this point.

Response:
- We have skipped the adjusted ORs in table 3 and 4 whereas in table 2 we have explicitly stated which variables we included in the regression analyses and the rationale for including them (see response to comment 3)

Other changes:
We have added some sentences according to the changes of the tables.

1. On the front page, we have changed the tile: “Early uptake of HIV counseling and testing among pregnant women at different levels of health facilities - experiences from a community-based study in Northern Vietnam”.

2. On p.2, in the Abstract, we have revised the Objective of the study to fit with the analysis of data in the new tables: “To describe socio-economic characteristics and gestational age among women having their first antenatal HIV test at primary and at higher level health facilities and to assess early uptake of HIV testing and the provision of HIV counselling among pregnant women who attend antenatal care at primary and higher level health facilities”.

3. On p.2, in the Abstract, we have revised the last sentence of the Results as follow: “The reported HIV counselling provision was also higher at primary health facilities, where women in comparison with women attending higher level health facilities were nearly three times and four times more likely to receive pre-test (OR=2.7; CI:2.1-3.5) and post-test counseling (OR=4.0; CI: 2.3-6.8)”.

4. On p.6, in the Result section, we have revised first sub-heading as follow is: Socio-economic characteristics and the uptake of HIV test. Under this sub-heading, we have revised the first sentence: “Table 1 shows the women’s socio-economic characteristics in relation to their uptake of first HIV test”.

5. On p.6, after the last paragraph, have added this paragraph: “The women who had two children were more likely un-tested than the women who had one child (13.1% in comparison with 6.7%, with p<0.001). Further, women living in remote rural areas were more likely un-tested than women living in urban areas (19.9% vs 3.0%, with p<0.001. In relation to the early uptake of HIV testing, women who had one child, women with education above secondary school and women living in semi-urban areas, were more like tested early than women who had three children, women with education below secondary school and women living at urban areas. These differences were significant with p<0.01”.

6. On p.6, under the sub-heading: HIV testing at different levels of health facilities, we have added 2 sentences: “Likewise, women who had unstable jobs, were living in semi-urban areas or had an income below 2.5 million VND were more likely tested at a primary HF when compared to government staff/workers, women living in urban areas and women with an income of 2.5-3.5 million VND, respectively. The time of the first antenatal care visit did not differ between women who had their first antenatal HIV test at primary level HFs and women who were tested at higher level health facilities”. We have also revised the last sentence of this paragraph as follow: “These associations were slightly less significant in the adjusted analysis..”

7. p.6, sub-heading: Early testing and provision of counselling, after the first sentence, we have revised the sentence as follow: “Women who had been tested at primary HFs were in comparison with women who were tested at higher level HFs more likely to be tested for HIV before 34 weeks of gestation (OR = 43; CI: 19-98). More over, women who had received information on HIV testing at their first antenatal care visit were more likely to have been tested early than the group
of women who had not received any information (OR=6.2; CI: 3.5-11.0)

8. On p.6, sub-heading: Early testing and provision of counseling, last sentence the following revision has been made: “However, women who had attended antenatal care at primary level HFs had in comparison with women who had attended care at higher level HFs significantly more often received pre-test (OR=2.7; CI: 2.1-3.5) and post-test counseling (OR = CI: 4.0;2.3-6.8) (Table 4)”.

On p.7, Discussion, paragraph 2, last sentence has been changed as follows: “Regarding the internal validity of the study, the information about HIV testing was obtained from the women through questionnaire interviews. The women’s answers were not hold up against any formal registration of the gestational age at which the women were tested. This lack of cross checking may have affected results.

9. On p.8, Discussion, para 4, line 11 the following sentence has been added: “However, no significant difference of the time of the first antenatal care visit was found between primary level and higher level of HFs”

Thanks for your attention and looking forward to hearing from you

Best regards,

Vibeke Rasch, Tine Gammeltoft and Nguyen Thi Thuy Hanh