Reviewer’s report

Title: Patterns and determinants of care seeking for obstetric complications in rural northwest Bangladesh: Analysis from a prospective cohort study

Version: 2 Date: 19 October 2014

Reviewer: Jean Christophe Fotso

Reviewer’s report:

The paper seeks to examine an important topic using data from a large prospective study. It has the potential to advance our understanding of health care utilization in rural North West Bangladesh. However, its quality would be enhanced by more focused analyses, with implications for health services in mind.

- Major Compulsory Revisions

Objectives: The interest of the study to the readership of the journal would be increased if the main objective of the paper, as stated on page 5 (Lines 123-124) was less general and more focused. For example, Lines 230-231 read: “Potential interactions between covariates such as distance to facility and availability of services were explored and added to the model if significant …”. Interactions should not be added based on p-values; instead they should be conceptualized beforehand, and ideally included as part of the objectives. For example an interaction between wealth and distance to facility would help examine if the effect of distance on care seeking behavior varies by wealth status, a finding which may have implications for service delivery.

Methods:

- Variables: The variable on couple’s wantedness of the pregnancy deserves further clarifications. Were husbands’ reports obtained from husbands themselves or from their wives? If the latter, the authors should explain why the couple variable (yet obtained from only one source) is superior to wantedness from mothers’ perspectives only, as widely used in the literature on maternal and newborn health. If the former, the description of the data source should clarify that husbands were also interviewed. Importantly, were the question to capture the idea of mistimed pregnancy (parents would have preferred to delay the pregnancy), or unwanted pregnancy (not wanted at all), or both?

- The first two paragraphs of the section on data analysis (Lines 207-219) should be part of the section on variables.

- The sentence in Line 221 (We tabulated …) is implicit and may be deleted.

- Why do the authors use both RRR and OR?

- Lines 235-237 refer to the Chi-squared test, yet none of the results tables (especially Table 1) shows the Chi-square.
- As stressed earlier, interactions terms are not to be added in the models the way described by the authors. They should have been thought through during the design of the paper’s objectives.

Results:
- As mentioned earlier, the analysis lacks focus. There are many tables and figures, yet the rationale of the analyses is not clear, and the linkages between these analyses less explicit.
- The first paragraph (lines 242-246) and the associated Figure 2 are not really part of the characteristics. Figure 2 should be used in the methods section to clarify the target samples for the analyses. Since the analyses use different sub-samples, it is critical that these sub-samples are clearly described in the data section (NOT in the results section).
- The inclusion of sub-sample sizes in the column headings of Tables 2-4 is confusing. The authors might want to use the text in the footnote of these tables to improve the titles, and then drop the “(n=xxxx)” from the column headings.
- Lines 252-253 mention p-values, yet these are not indicated in Table 1.
- The sub-section on care-seeking patterns (Lines 255-274) is based on Figures 3, 4 and 6. What about Figure 5? The version of the manuscript I have only has Figures 1-4. Most readers will grapple with the content of Figure 4, yet the issue it is supposed to describe is very straightforward.

The authors need a better way to report in the text the figures from the tables. Writing for example (RRR 1.51 95%CI 1.33-1.75) as in Line 281, may not be acceptable. An improved version may be (RRR of 1.51; 95%CI of [1.33-1.75]).
- There is no transition from the results in Table 2 to the ones in Table 3 (i.e. from Lines 280-284) to Lines 285-291).
- The expression “… pregnancy wantedness discouraged any care …” (Line 309), is not acceptable. The phrase “decreased distance” (e.g. Line 311) should be replaced with "short distance”

Others:
- Reference #47 is listed for the first time (in Line 140) before the references #39-46.
- There are few instances where citation of references is not clear. For example, since the sentence in Lines 115-117 is pretty obvious, did studies in references 27, 34, and 35 make the same (obvious) point or did they indeed improve the understanding of factors that influence care seeking from formal and informal providers?
- The expression “lack of pregnancy wantedness” (Line 278) is not adequate. The right expression is “unwanted (or unplanned) pregnancy”. Respondents are not members of wealth quartiles; instead, they fall into the wealth groups. The expression “membership in the highest household wealth” (Line 280) is thus not adequate either.
- Minor Essential Revisions
- The section on strengths and limitations could focus on limitations only, and the first paragraph (Lines 381-388) moved to the beginning of the discussion or the conclusion section.

- Discretionary Revisions
- Line 160: Is it about definition or classification of providers? I would vote for the former.
- Distance variable: Given that about 80% of the sample falls in the category >10km, it may be good to split this category into two (e.g. 10-15km, and >15km).

**Level of interest:** An article of importance in its field

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

**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