Author's response to reviews

Title: Risk factors for reported obstetric complications and near misses in rural northwest Bangladesh: Analysis from a prospective cohort study

Authors:

Shegufta S Sikder (ssikder@jhsph.edu)
Alain B Labrique (alabriqu@jhsph.edu)
Abu A Shamim (shamim.jivita@gmail.com)
Hasmot Ali (h asmot.jivita@gmail.com)
Sucheta Mehra (smehra@jhsph.edu)
Lee Wu (lwu@jhsph.edu)
Saijuddin Shaikh (saiju.jivita@gmail.com)
Keith P West Jr (kwest@jhsph.edu)
Parul Christian (pchristi@jhsph.edu)

Version: 3  
Date: 17 August 2014

Author's response to reviews: see over
Responses for Manuscript # 9605543871238965
Risk factors for reported obstetric complications and near misses in rural northwest Bangladesh: Analysis from a prospective cohort study
Submitted to: BMC Public Health
July 15, 2014

To BMC Public Health,

Point-by-point responses to the reviewer’s questions are given below. Note, as text has been added, some line numbers that the reviewers reference are now changed. The new line numbers have been mentioned.

Editorial Comments:
1. Please explain reproductive age range 13-45. I can see why but the authors need to explain in the methods section. This age range is consistent with age cutoffs for reproductive age used in previous cohort trials in this same study area (West, 2011, Klemm, 2011). This age range reflects the lower and upper limits for women who met eligibility criteria at enrollment. At the outset of this study, a census of all households within the study area was used to generate a comprehensive list of non-pregnant married women who were living with their husbands. As the lower and upper limits for the age range of eligible women was 13 and 45 years, this age range was used to define women of reproductive age. We have added this explanation to the methods section pages 5-6 lines 122-126.

2. Also a discussion of induced abortion in Bangladesh given the MR program needs to be addressed in this paper. We have added a paragraph on menstrual regulation to the discussion section on page 14 lines 341-351.

3. Explain abortion category. Why are all types of forms of pregnancy loss in the same category? In this analysis, the independent variable of adverse obstetric history indicates history of previous spontaneous abortion or stillbirth. This category does not include previous induced abortions. To clear up confusion, we have replaced abortion with “miscarriage.” Previous typos associated with this terminology have been corrected.

Referee 1:

MAJOR COMPULSORY REVISIONS
1. Line 94: In the sentence beginning with “Adverse obstetric history,” are the authors using the term “abortion” to refer to induced abortion? Or spontaneous abortion (i.e., miscarriage)? Or both? We thank the reviewer for raising this point. In this analysis, the independent variable of adverse obstetric history indicates history of previous spontaneous abortion or stillbirth. This category does not include previous induced abortions. To clear up confusion, we have replaced abortion with “miscarriage.” Previous typos associated with this categorization have been corrected. Language has been clarified to indicate whether the authors are referring to miscarriage or induced abortion.

2. Line 146: When referring to “women with abortions,” are the authors referring specifically to induced abortion? This confusion persists throughout the manuscript; it is not clear when or whether spontaneous and induced abortions are being combined into one category. I feel quite strongly that for the research questions presented in this study, it is not appropriate to combine them in a single independent variable. In this analysis, the independent variable of adverse obstetric history referred to history of previous spontaneous abortion or stillbirth. This category does not include previous induced abortions. To clear up confusion, we have used the replaced abortion with “miscarriage” and corrected typos associated with this categorization. Language has been clarified to indicate whether the authors are referring to miscarriage or induced abortion.
3. Line 181: “Adverse obstetric history” is defined as stillbirth or abortion, but again, it’s not clear what kind of abortion falls in this category. Furthermore, stillbirth is a very different pregnancy outcome compared to induced abortion or spontaneous abortion. The factors associated with spontaneous abortion would be different from those associated with history of induced abortion. Adverse obstetric history in this analysis refers to history of previous miscarriage or stillbirth. All terminology and categorization associated with this variable has been corrected in the revised manuscript and the line numbers referenced by the reviewer. Corrections have been made to Lines 96, 155, 190, and throughout the document.

4. Lines 235-243: These findings on skilled attendance, antenatal care, and place of delivery are interesting. Are the data not shown in tables? In addition, what is the authors’ rationale for not accounting for these variables in the analyses as potential predictors of the outcomes of interest? We have added a table (Table 3 on page 28) illustrating the findings describing skilled attendance, ANC, and place of delivery. Antenatal care information was collected for women who had live births only. Data on place of delivery and skilled attendance was collected for women with live births and stillbirths only. Because data on these variables was not available for all women, we did not include these variables as independent variables. However, in sub-analysis we did include ANC as an independent variable of interest for obstetric complications among women with live births only. This table is now included as Table 7 on page 34.

5. Lines 336-340: The authors discuss how antenatal care could be important in identifying and addressing obstetric complications. Given that the authors presumably had access to data on antenatal care uptake among participants, this paragraph invites the question of what association the authors found between antenatal care and the outcomes. Same with skilled attendance and facility deliveries. We thank the reviewer for raising this point. Antenatal care information was collected for women who had live births only, whereas data on place of delivery and skilled attendance was collected for women with live births and stillbirths only. In sub-analysis, we did include ANC as an independent variable of interest for obstetric complications among women with live births only (Table 7 on page 34). We also included a sub-analysis of live births and stillbirths only with place of delivery as an independent variable (Table 8 on page 35). Skilled attendance was not included as it was highly collinear with place of delivery.

MINOR ESSENTIAL REVISIONS
1. The superscript “a” in the flowchart is not defined in the image. Thank you, this has been removed.

2. Lines 126-135: This paragraph is confusing, and I’m not sure it corresponds to the flow chart on the final page of the manuscript. The text says that women who had stillbirths, miscarriages, or induced abortions were interviewed one month following the pregnancy outcome, but both Table 1 and the flow chart suggest that women with stillbirths underwent the same data collection procedures as those with live births (i.e., postpartum interviews), not the interviews for women who had miscarriages or induced abortions. Lines 128-137 have been revised to reflect these changes. The reviewer is correct, the same data collection procedures and type of data was collected for women with live births and stillbirths, while the data collected for women with induced abortions or miscarriages was similar as indicated in Table 1 and Figure 1.

3. Similarly, the text implies that only those who had a live birth were interviewed two weeks after delivery, but why wouldn’t those who had stillbirths also participate in that two-week interview? The reviewer is correct, women who had live births and women who had stillbirths were asked about labor and delivery complications two weeks following their pregnancy outcomes. Line 128-137 has been corrected to reflect this information.
4. In the flow chart, I see no mention of this two-week interview. Is the “birth assessment form” in the chart referring to this two-week interview? Yes, the birth assessment form was administered at the two-week interview for women with live births or stillbirths. This has been clarified in Lines 128-137.

5. In line 132, it seems that the sentence beginning with “At 1 month postpartum” actually is referring to all women, not just those who delivered. So the use of the word “postpartum” is confusing. Aren’t women who miscarried or induced abortion also being asked about near misses? Correct, all women with pregnancy outcomes (including those with live births, stillbirths, induced abortions, or miscarriages) were asked about near misses. The terminology in line 135 has been corrected to reflect this.

DISCRETIONARY REVISIONS
1. Line 121: Why is reproductive age defined as 13 to 45, rather than the more standard 15 to 49? Please see response given above for Editorial Comment #1 on page 1.

2. A discussion of induced abortion in Bangladesh seems lacking if menstrual regulation (MR) is not mentioned. There is a difference between MR (which can be quite safe and regulated) and clandestine, unsafe abortion, but this distinction is not addressed in the manuscript. A good overview can be found at: http://www.guttmacher.org/pubs/IB-Bangladesh-MR.htm. A paragraph on MR was added to the discussion on page 14 lines 341-351.

Referee 2:

Minor Essential Revisions

Abstract
1. Abstract: Background section; Line 37: Since this was a cohort study; the authors should described incidences instead of prevalence. Although the parent trial was a cohort study, the variables used in the analysis for the paper were not the primary outcomes collected in the trial. The parent cohort trial study was designed to measure the effect of daily antenatal supplementation with multiple micronutrients on six-month infant mortality. As outlined in Lines 395-398 of the Strengths and Limitations Section, the data in the parent trial were not exclusively collected to determine risk factors for obstetric complications over time. Thus, the estimates reported for risk factors of complications represent prevalence rather than incidence estimates.

2. Abstract conclusion: The conclusion should focus on the main findings of the study and not on the recommendations. The abstract conclusion was revised on lines 62-64 to focus on the main findings rather than recommendations.

Methods: Definitions of morbidity categories

3. Paragraph Tree; Line 162: the authors should briefly describe the kind of injuries excluded by IMPAC. Were these Obstetrics injuries? Physical injuries and accidents were excluded. This is clarified on page 8 line 171.

Data Analysis
4. Paragraph 1 Line 194: The authors should tell the readers the Chi square test used since they had more than two groups of morbidity categories. This was corrected in line 204.

Results Section 5. Paragraph Four Line 242: The authors should Insert one between at least and antenatal. This correction was made in line 251.

Discussion: main findings;
6. Paragraph one; Line 281: the authors should replace that with the so that the sentence reads ---- while parity was the only factor that was significantly------- This correction was made in line 286.

Discussion Interpretation
7. Paragraph Three Line 302: Again the authors are reporting prevalence instead of incidence. See explanation given for Question #1 for Reviewer 2’s questions.

8. Paragraph four: Line 317-319. Since the paper is on morbidity, can the authors find relevant literature on morbidity to back up this finding instead of using literature on mortality? Lines 292-312 discuss findings from relevant studies on morbidity compared to the findings of this study. In addition to these numerous examples of morbidity studies, the authors included the mortality study referenced in lines 328-329 because this Nepal cohort study was designed as a sister trial to the Bangladesh study with similar study population characteristics, design, and research questions. We found the findings from this study to be relevant as it covered a comparable population.

Strengths and limitations

9. Paragraph Two; Line 359: The authors should replace prevalence with incidence. Please see explanation given for Question #1 for Reviewer 2’s questions.

Sincerely,

Shegufta Shefa Sikder, PhD