Author's response to reviews

Title: Beneficial Newborn Care Practices in Rural Eastern Uganda: a Cross-sectional Study.

Authors:

Michael Odoi Owor Dr (owormichael@gmail.com)
Joseph KB Matovu (jmatovu@musph.ac.ug)
Daniel Murokora Dr (murokora@gmail.com)
Rhoda K Wanyenze Dr (rwanyenze@musph.ac.ug)
Peter Waiswa DR (pwaiswa@musph.ac.ug)

Version: 4 Date: 24 November 2014

Author's response to reviews: see over
November 24th, 2014

The Editor,
BMC Pregnancy and Childbirth

Dear Editor,

Re: Response to the Editor’s Comments for Manuscript#: 1261033346145405

We thank you for reviewing the above-mentioned Manuscript and for providing us with an opportunity to revise it for further consideration.

We have revised the Manuscript as advised and provided a point-by-point response to the comments raised.

We look forward to receiving your further guidance on this subject.

Regards,

Owor Michael Odoi
Corresponding Author
<table>
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<th>Comment</th>
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| #1      | Lines 113-114 "Luuka and Buyende are relatively new districts ... became functional on 1 July 2010." Is this relevant information - does it help to understand the findings? Consider deleting.  
**Response:** Information pertaining to the date when the new districts were created has been deleted as advised. The new sentence now reads; “Both Buyende and Luuka districts are part of Busoga region which contributes 10% of the population of Uganda” (see page 6, line 124-5 for details). |
| #2      | Lines 114-119 "Luuka is bordered by Buyende ... Kayunga District to the west.” It is hard to see why the reader should know the names of neighboring districts. Consider deleting.  
**Response:** All reference to the districts neighboring the two study districts has been dropped from the revised manuscript, as suggested. |
| #3      | Line 121: Replace "leave" by "live"  
**Response:** We have replaced the word “leave” with “live” as advised. The new sentence now reads: “Over 80% of the population are peasants and live on less than US$1 a day.” (see page 6, line 126 for details). |
| #4      | Lines 121-122: "The crude birth rate ... per 1,000, population” - not clear. Please reword  
**Response:** The sentence, “The crude birth rate … per 1,000, population” has been revised to read as: “The crude birth rate in both districts averages that of the country at 42 live births per 1,000 population” (see page 6, line 127 for details). |
| #5      | Line 153-154: "used as a proxy for increased survival ... all newborn care practices” - why not stick to the outcome of interest as “good neonatal care”? I am not sure you are doing yourself a service by claiming that good care is a proxy for survival - this is a big assumption. Consider deleting  
**Response:** The statement, “…used as a proxy for increased survival … all newborn care practices” has been deleted as advised, and replaced with: “…beneficial newborn care practices, which were dichotomized as “Yes=1”, if the mother practiced all the beneficial newborn care practices and “No=0”, if the mother practiced neither or just a few.” (Please see page 7, line 184-87 for details) |
In the chapter "Statistical analyses" I miss the indication which statistical tests have been used for which purpose, and which significance level was chosen

Response: We thank the Editor for making this important observation. We have now included information on the statistical tests used and explain how the significance levels were chosen. Specifically, we used the maximum likelihood ratio test to assess the association between the outcome of interest “beneficial newborn care” and mother’s characteristics during the bivariate analyses. All variables with a p-value of P<0.1 at the bivariate analysis were considered for the multivariable analysis. At the multivariable analysis, a p-value less than 0.05 (P<0.05) was considered significant. The text has been amended to reflect this level of detail (Please see page 8, lines 221-28, for details)

I understand that the sample was comprehensive - all 1,616 mothers were included. It would be useful to present a power calculation - which difference or odds ratio can be demonstrated as significant at the 5% level with such a sample size

Response: Our study aimed at assessing the prevalence of use of beneficial newborn care practices and the factors affecting their utilization in two districts to inform the design of a maternal health intervention in the two districts. The power of the intervention to detect a difference in the utilization of beneficial newborn care practices between the two districts will be determined at an appropriate time.

Lines 228-230: "distance to health facility (Do not know vs. ≤ 5km: OR=0.62, 95%CI=0.43,0.89) were significant predictors of utilization of all beneficial newborn care practices among mothers." This is difficult to understand - an unknown distance protects against beneficial newborn care compared to a short distance. I think this should be presented as inverse, i.e. short distance predicts beneficial care. Not sure that unknown distance is a good category - should it not be short vs. long distance?

Response: We thank the Editor for raising this issue. We have reversed the reference category in order to have “distance unknown” as the reference category as opposed to our earlier analysis where the reference category was ≤5km. Using the new reference category, we found that the adjusted OR associated with living in a distance ≤5km was 1.57 (95%CI: 0.99-2.51) while that associated with living in a distance of >5km to the health facility was 1.69 (95%CI: 1.00, 2.85). Based on these data, we can infer that living in a distance of >5km from the health facility was associated with using all beneficial newborn care practices. We have amended the text to reflect this level of description. (Please see page 10, lines 313-320 for details).

Table(s) 3, 4: State, e.g. in a footnote, on which statistical test(s) the p-values were based.

Response: We have shown the statistical tests on which the p-values were based in a footnote on Tables 3 and 4 as advised.

Table 4: State, e.g. in a footnote, which variables the odds/rate/risk ratio was adjusted for, e.g. by saying "Adjusted for all other variables in the table"
Response: Thank you for raising this important observation. We have included a footnote on Table 4 to show the variables that were used in the adjusted analysis.

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<th>Table 4: It is curious that for e.g. Number of ANC attendances, only one AOR is presented - why are the others omitted? It would be better to report the complete set of AORs</th>
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<td>Response: We have corrected this anomaly. All the adjusted odds ratios are now presented. See Table 4 for details.</td>
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