Author’s response to reviews

Title: Factors associated with health facility childbirth in districts of Kenya, Tanzania and Zambia: a population based survey

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Author’s response to reviews: see over
Dear Sir/Madam,

RE: Submission of re-revised manuscript

I am a PhD candidate at the University of Bergen, Centre for International Health, Department of Global Health and Primary Care. I am submitting, and on behalf of my co-authors, the attached revised manuscript after responding to reviewers’ report. We find it relevant as it compares similarities and differences in three districts in sub-Saharan Africa in terms of factors associated with facility childbirth.

The manuscript is: Factors associated with health facility childbirths in districts of Kenya, Tanzania and Zambia – a population-based survey. The study reveals strong socio-economic inequities associated with facility childbirth common in the three districts. Differences exist in facility childbirth associated with perceived distance, and trust in quality of care likely due to differences in health system delivery of care. The study also shows a positive association of HIV testing and counseling in favor of giving birth at a health facility, suggesting positive effects that can be attained by strengthening integrated approaches in maternal health service delivery. These findings are important to help inform policy makers about the extent of inequities that need to be addressed in order to help improve maternal and neonatal outcomes at childbirth as we aim to achieving millennium development goals 4 and 5.

The point by point response to the reviewers’ report is attached below. We will greatly appreciate consideration of the revised manuscript and publication in your journal.

Yours sincerely,

Selia Ng’anjo Phiri.
Reviewer's report
Title: Factors associated with health facility childbirth in districts of Kenya, Tanzania and Zambia: a population based survey
Version: 3 Date: 3 March 2014
Reviewer: Terhi Lohela
Reviewer's report:
MAJOR ESSENTIAL REVISIONS
The results section needs some re-writing as the reported results do not always fully correspond to the data presented in the tables.
- In general, when discussing the results, it should be mentioned whether the authors refer to crude or adjusted results.

Response: Unadjusted and adjusted (AOR) have now been specified.

- Based on the data presented in the Tables, it can hardly be stated that “SEP was strongly positively associated with facility childbirth in all the three districts as well as rural and urban areas (Tables 3-5).”

Response: This section has been rewritten. The point is that there was a positive association in all the districts and in rural and urban areas, but only borderline significant in rural Malindi and urban Mbarali.

- The authors report that the odds of health facility birth were higher for the highest SEP (OR 2.35) compared to those belonging to the lowest SEP in rural areas of Malindi. However, none of the OR’s presented for the association of SEP and facility birth in rural Malindi show a significant association (Table 3). Also, the confidence interval is very large and it includes the value OR 1 (95% CI 0.52-12.33). Therefore, it is unlikely that the association would be statistically significant (what is the p-value?).

Response: We are as the norm not presenting both the confidence intervals and the p values since it is seen as over-reporting. Yes indeed the confidence interval for SEP in rural Malindi includes the OR 1, meaning not statistically significance. Thus, a clarification is now given by re-phrasing the statement in the results section. P values are now presented together with the confidence interval in the table to show the strength of the association, although not seen as preferable and we will like to remove them if indicated by the Editor.

- Similarly, it is reported that the odds of facility birth increased with increasing SEP in urban Mbarali. Based on Table 4, the adjusted OR for SEP in urban Mbarali (in the full model) is not significant. Furthermore, the 95% confidence interval is large and includes the value OR 1 (95% CI 0.85-18.49) indicating that the association is not significant (what is the p-value?).

Response: The p values have been included in the tables to show the strength of association, and a statement added to the result section to indicate that the strength of the associations did not change substantially when adjusting for the other model variables, but the associations in rural Malindi and urban Mbarali appeared borderline significant.

- The authors state (Discussion):
“Furthermore, there were indications that repeated exposure to ANC services
and to HIV related counselling and testing increased health facility deliveries.”
The authors imply that HIV related counselling and testing increases facility deliveries. Due to the methodology used in this study, it cannot be known whether delivery in a facility increased HIV related counselling and testing or vice versa. Rephrase the sentence as it is implying causality. A similar revision was already requested in my previous review.

Response: This statement has been rephrased: “Furthermore, there were indications that repeated exposure to ANC services and to HIV related counselling and testing was positively associated with health facility deliveries.”

- Show p-values for Tables 3, 4 and 5.

Response: In the tables 3, 4 and 5 symbols *, ** and *** have been indicated against the statistically significant results and in the notes below each table (3, 4 and 5) an explanation is given: Significant odds ratios indicated in bold at *p<0.05, **p<0.01 and ***p<0.001. This was done so as not to overcrowd the tables and over-report by including actual figures of p values, and also for ease in reading the tables.

- The authors state (Discussion):
“This study showed educational attainment as the most important of the two indicators of SEP in influencing place of giving birth.”
If the importance of education is to be highlighted in the discussion section, education should be presented in the results section as a separate variable. Now the importance of education is only reported in the methods section where the construction of the SEP variable is described.

Response: We have removed this from the discussion since not seen as a critical issue and also it might be confusing.

DISCRETIONARY REVISION
- Reporting of the results could be made clearer by reporting them separately for underlying factors and proximate factors (as they are presented in the tables). Why are SEP and proximate factors reported together in the results section?

Response: The underlying factors and proximate factors have now been reported separately in the results section.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests: I declare that I have no competing interests.