Author's response to reviews

Title: Determinants of use of skilled birth attendant at delivery in Makueni, Kenya: A cross sectional study.

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Author's response to reviews: see over
To the Editor,

BMC Pregnancy and Childbirth

Many thanks for the peer reviewer’s comments which have been very useful in improving the manuscript. Below, kindly find a description of the issues that we have addressed.

**CHANGES TO MANUSCRIPT—DETERMINANTS OF USE OF SKILLED BIRTH ATTENDANTS AT DELIVERY IN MAKUENI COUNTY, KENYA: A CROSSSECTIONAL STUDY**

**Reviewer 1: Vishnu Khanal**

**Abstract:**

**Background**
This has been changed in view of the comments given to “the study examines the association of mother’s characteristics, access to reproductive health services, and the use of skilled birth attendants in Makueni County, Kenya.

**Method**
We have included more details on the source of data, extraction of variables and also mentioned the statistical analyses. We have also indicated that we used chi-square tests to test the significance of association between the outcome variables and the independent variables. We also took into consideration cluster and sample weight analysis which changed our sample size and eventually our results.

**Results**
The content has been improved by starting with a description of the sample. We have presented the outcome variable and then reported its association with other independent variables. The bivariate part has been removed from the abstract and we have presented the results from multiple logistic regression. We have equally reported on the effect size in the results section.

**Conclusions**
The conclusion has been re-written based on the findings of the study so that it’s more informative stating the next actions to be taken.
Main Text

Background
This has been made more specific to the Kenyan context and we have added more information on maternal, health status in Kenya on the trends of skill birth attendance and existing challenges in paragraph 3. We have added more information based on similar researches conducted. We have also linked the background with the overall objective of the study.

Methods
We have provided information that details the original study, sampling, and inclusion as well as exclusion criteria. We have provided details on how the participants were selected for the study.

Data analysis
Based on the comments given we have able to revise the data analysis. We used complex sample analysis so as to account for unequal weights. Our sample size changed to 1,212. We conducted Univariate statistics, a binary logistic regression, and proceeded to multiple logistic regression with the variables that were statistically significant. Chi-square tests were used during the analysis of the data to test significance of relationships between outcome and explanatory variables (independent variables).

We included all variables that were significant at $p<0.05$, $p<0.15$ and $p<0.25$ in the multiple logistic regression. These were marital status $p=0.068$ and distance to health facility $p=0.181$. We have re-arranged the tables (table 2 and three) based on findings of the study.

Pearson’s r Correlation for the different independent variables was conducted to determine multicollinearity. We found that there was no strong co-relation among the independent variables $r<0.75$

Results
We have re-arranged our results into characteristics of sample as well as factors associated with skilled birth attendance. We have presented the odds ratios for the respective independent variables.

Discussion
We have presented the descriptive findings, and compared this with other studies in the Kenyan context. We also focussed on the key factors from the multiple logistic regression for discussion. We have also presented the limitations of the study.
Conclusion
We have re-written the conclusion as advised and giving recommendations from the study.

Tables
We have combined the tables as advised into one table (table 3)
Under table 3 we have presented the totals in columns as opposed to the row totals.
Table 6—which was present previously, has been revised to table 3 and we have also changed the titles of the tables.

Reviewer 2 – Lawrence Ikamari

Title of the Study
The title has been revised to “Determinants of use of skilled birth attendant at delivery in Makueni, Kenya: A cross sectional study’: a cross sectional study” initially the title was determinants and contextual influences on the use of skilled birth attendants at delivery in Makueni county, Kenya A cross sectional study.

Research Problem
We have provided the research problem in the manuscript which was to find out the determinants that influence uptake of skilled delivery in Makueni County.

Explanatory variables
We have provided statistics of how these variables were measured and their relationship with the outcome of the study- skilled delivery. This has been provided in the results section.

Use of Family Planning
We agree with your concerns regarding the use of family planning as a variable for this study and revisions have been made to the manuscript.