Reviewer’s report

Title: Factors influencing choice of skilled birth attendance at ANC: evidence from the Kenya Demographic Health Survey

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Reviewer: Xu Qian

Reviewer’s report:

The study explored factors associated with choice of skilled birth attendance. The findings will be helpful for developing interventions in African and other undeveloped countries. Authors are suggested to address the following questions:

1. It will be helpful if authors could give mapping information in the background regarding the routine antenatal care model, the rate of skilled birth attendance of the country in the Background. This will help audience understand the research rationale.

2. It seems that all participants were recruited from the ANC clinic. Thus those who did not attend the antenatal care were missed from the study. This will result in the limitation of generalizability of the research findings. However, the utilization rate of skilled birth attendance is always consistent to the rate of antenatal care. If the rate of ANC attendance is not high, only the acknowledgement of its limitation in discussion will be not enough. Authors should consider the revision of the study title.

3. In Outcome variables Methods, the definition of skilled attendance at delivery was described as delivery attended by a "health professional-such as a midwife, doctor, clinical officer or nurse. Do they have support from health system once urgent situation happens when providing care at home? Is the EmOC available?

4. In Predictor variables, what are the criteria of small problem and large problem when categorize the opinion on quality of services?

5. Has traffic condition considered as a factor of the choice of skilled birth attendance?

6. How was the information of 'geographical region of residence' collected? Does this mean the availability of the skilled birth attendance?

7. For skilled birth attendance at home, is the service paid? Or is there incentive for skilled birth attendants from the home delivery?

8. Is the childbirth covered by the health insurance in the study country?

9. Please give more information of free maternal services in Kenya. This actually has the implication for the service utilization.
10. Table 1 & 2 are not in a correct format- too many horizontal lines.

11. Authors only involve factors significantly associated with choice of skilled birth attendance in the final multivariate model. However, authors are suggested to involve all factors in the final model.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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