Reviewer’s report

Title: Factors influencing access of pregnant women and their infants to their local healthcare system: a prospective, multi-centre, observational study

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Reviewer: Hubert Amu

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Manuscript title: Factors influencing access of pregnant women and their infants to their local healthcare system: a prospective, multi-centre, observational study

My comments

This is an interesting and nicely written manuscript which seeks to assess predictors of access to healthcare facilities among mothers and their infants. The purpose of the study is to identify potential barriers to future participation in clinical trials having to do with maternal vaccination. There are, however, some minor corrections that I suggest should be done before the manuscript is accepted for publication in BMC Pregnancy and Childbirth.

1. I suggest that the authors go through the work again and conduct minor language editing of it. For instance, on page 3, line 48-49; "Among the 3145 women with live-born infant", 's' should be added to "infant". Also a comma should be brought after 'duration' in the sentence; While heterogeneities were observed at site level, mode, duration and cost of transportation....... (page 3 line 52). Once there is a listing system being referred to, it is required to bring a comma after the last item on the list before the "and" which precedes the last item. This is repeated throughout the manuscript.

2. The authors should be consistent with the spelling of "healthcare'. For instance, on page 2, line 37, it is spelt as "healthcare". On page 3, line 51, however, it is spelt at "health care"

3. The background information is scanty. More literature should be added to provide more context. The authors for instance started the background information by indicating that; "Despite steady decline in child mortality, the number of neonatal deaths has been difficult to reduce". I suggest that they provide more context on this. Evidence should be provided of the steady decline that the authors are alleging, even though a citation has been provided to support their assertion. Thus, at what point was child mortality very high? How high was high? When did this trend start to experience a decline? How fast as this? Thus, I suggest that the authors decouple the write-up on the decline in child mortality by fully addressing
the above comments. After this, then they can indicate that even though child mortality in
general has decline, neonatal mortality has been difficult to reduce.

4. The 5.9 million deaths being referred to by the authors on page 3 line 67 of the background,
is it global? If it is, then they should indicate it as such because, it is misleading as it stands
now.

5. In the methods, the authors provided the centres where the study was conducted. Is this list
conclusive? If not, how many sites were there and what methodology was adopted in
selected those that were used for the study? Thus, what informed the choice of these cites?
Providing the context is very important for the readership of the study especially since it is
for global consumption.

6. The authors should justify why they chose 90 days of age for the follow-up as indicated on
page 5 line 114. My concern is borne out of the fact that the authors indicated in the
background that it has been difficult to reduce neonatal mortality and neonatal mortality
occurs in the first month of life = 28 days. So, they should just provide a justification for
selecting 90 days.

7. Page 6, line 123 "If needed, a home visit was undertaken". This statement should be
expatiated.

8. Page 6, line 141. Which specific logistic regression models were used? Was is binary? This
should be indicated and if possible, the formulae underpinning the model provided.

9. Page 7 line 157-162. The following statements should be sent to the methods section "In
total, 3614 women were approached for enrolment. Of these, 300 (8.3%) women did not
give consent, 67 (1.9%) were not eligible for enrolment, and 4 (0.1%) were not enrolled for
other reasons (Figure 1). Reasons for not participating in the study varied by site; overall,
gestational age outside eligibility window was the most common reason. Other reasons
included language difficulties, relocation or living outside the study area, family reasons,
and lack of interest in 162 participating."

10. I appreciate the fact that the authors took time to spell out the possible limitations of the
study. Were there any steps taken to address these limitations? If there were, they should be
indicated.

11. The conclusions seem generally to be a recapitulation of the results and discussion sections.
Conclusions should be about the possible implications of the findings for policy and
practice. The suggestions on how to improve the status-quo I suggest, should be sent to the
discussion section, just before the limitations. Considering the robustness of the findings
made by the study, I was actually expecting a more detailed conclusion that is currently
presented. The authors should work on improving this by ensuring that the barriers which the study sought out to ascertain are re-emphasised.

12. Thanks for the opportunity to review this manuscript.

**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.

Yes

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

No

**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:

Needs some language corrections before being published

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