Author's response to reviews

Title: Determinants of Maternal Health Care Utilization in Holeta Town, Central Ethiopia

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Version: 4 Date: 9 April 2013

Author's response to reviews: see over
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Determinants of Maternal Health Care Utilization in Holeta Town, Central Ethiopia

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Reviewer's report
Title: Determinants of Maternal Health Care Utilization in Holeta Town, Central Ethiopia
Version: 2 Date: 28 December 2012
Reviewer: Maurice Yé

Reviewer's report:

1. General remarks
The study addresses the determinants of Maternal Health Care Utilization in Holeta Town in Ethiopia with emphasis on factors underlying home delivery. This topic is therefore relevant toward attainment of MDGs 5 where Ethiopia is still far to achieve regarding the inadequate utilization of antenatal care and delivery care highlighted in this paper.

In terms of policy implication this study could contribute to raise more awareness on the necessity to take strong political decision bridge the between health service and community.

Data provided in results section seems to be consistent and follows the standard of data reporting. Both dependent variables and independent variables were considered into the results.
A sufficient literature reference acknowledging study done in this area was provided and all contributors in the study were also acknowledged. However the policy implication of the paper was not addressed and the relevant literature on the topic and discussion section should be improved.

The policy implication of the paper indicated as suggested by the reviewer in the introduction section last paragraph. “The identification of socio-cultural barriers to the utilization of maternal health-care services is an important component in the design of effective strategies for increasing maternal health care utilization.”

Also when considering that the ANC four is the minimal quality required according to WHO standard, than emphasis should be put on understanding ANC 4 coverage à 34% which seems to be very low instead of using ANC1 (87, 1%) as the ultimate goal is to act in such a way that women come to deliver at Health Facility and ANC 4 is the entry point to raise awareness about coming to deliver at HF

Emphasis given on the discussion part that the only 34% of the women had at least 4 ANC visits which is recommended by WHO

2. Major compulsory Revisions

Background: study objective does not appear clearly and could only be seen at methodology section, it is advised to take this into account

In the background section we try to show the main objective of the study “ the purpose of this study is to assess the factors that determine utilization of maternal health care - antenatal care (ANC) and delivery care (DC) - services in Holeta town, central Ethiopia”

Methods section

-In the method section, the study design is not so explicit, although it’s a cross-sectional study, we don’t know at this stage whether there is a combination of qualitative and quantitative method, a descriptive study?. This appears only at the sampling section.

In the method section we specify that the study design combines both the qualitative and quantitative study methods as the interviewer suggests “A cross-sectional study that employed both qualitative and quantitative data collection methods was carried out…”
-The sampling and sample size determination appeared confused as it seems that the sample for the quantitative and qualitative study is the same although you mention non probabilistic purposive sampling technique which does not necessarily suggest random sampling or selection of a large number of participants in the case of qualitative study.

Are the two groups of women 7 and 8 included in the focus group are part of the 422 interviewed? In the paragraph 3 Are these numbers different to the 2 focus groups conducted with 15 women mentioned in the Data collection section, paragraph 2? Definitely this section needs to be reorganized so that to have a clear split between the quantitative and qualitative sample size calculation so that to have:
*Quantitative data and sample size determination
*qualitative and sample size determination

Usually when referring to non probabilistic purposive sampling, there is no need to perform statistical sample size calculation since it’s a kind of convenience sampling. But please explain the difference in the Focus group discussion size in paragraph 2 of sampling section and the one in paragraph 2 of data collection section

The sample for the quantitative and qualitative study the two groups of women consisting of 8 each included in the focus group were not a part of the 422 interviewed. We try to clarify that in the method section.

Discussion section
Some new information such as tetanus toxoid for women appear in the discussion section, paragraph 3(73.6%) of women received at least two during ANC visits which was not presented in the results section. Please include this number in the results section.

We did excluded the tetanus toxoid information in the discussion section, since it was not was not presented in the results section.

The discussions shouldn’t be a point by point discussion of the results; it rather focused on key significant findings. The discussion section should be shortening reasonably at not more than 4 pages.

We try to shortening the discussion section only by focusing on the major results and avoid the point by point discussion of all the results.
4. Minor Essential revisions

Introduction: literature, please update the maternal deaths: there is 2010 data available on Trends in maternal mortality estimates 1990-2010 from WHO, UNFPA and World Bank

We updated the maternal deaths data by 2010 data by Trends in maternal mortality estimates 1990-2010 from WHO, UNFPA and World Bank.

Keywords are missing in the document

The key words are included in the abstract part

Research questions: It is not clear whether the research aim is also the research question in the last paragraph of the introduction section

We clarify that in the last paragraph of the background section.

Paragraph 2 of methodology section about the study subjects, it is not clear that the sample are from the selected Kebeles (4 out of 8 kebeles that compose the Holeta town) please clarify or provide response.

The four Kebeles are selected from the total of eight kebeles in the town using simple random sampling method. The samples were selected from the four kebeles using simple sampling method. We clarify that in the method section.

Paragraph 1 of results section: Demographic profile should be labeled socio demographic profile

The demographic profile labeled as the socio-demographic profile as the interviewers suggests.

Paragraph 1 of results section: Please also write antenatal care instead of anti-natal care correctly

anti-natal care corrected as antenatal care

Results section

Paragraph 1 In the Maternal Health Care Utilization section, the ANC users (33.7%) who had less than four ANC visits should be harmonized with the 34% in the abstract results section.

In the abstract results section, the ANC users 34% who had less than four ANC visits harmonized with the 33.7% in the Maternal Health Care Utilization section Paragraph 1

Respondent’s perception about the quality: need to precise always the total number of respondents as it can vary.

Respondents perception about the quality of the service of ANC shown with different questions like personal respect of health workers at ANC unit, o waiting time for ANC services, lack of privacy at ANC unit etc. And it is discussed in the result section.
Reasons for preferring home delivery, the other reasons (9.3%) should be listed or explained briefly in the text as there could be some important reasons hidden that need to be seriously addressed

The 9.3% other factors listed

Reference: number 18 is missing in the discussion section

The reference list is rearranged again and the reference 18 is included

Limitations of the work

There is no mention about the limitations of the work in the study although it should have according to the nature of the study. Indeed having interviewed women in the past three years should have introduced some recalls bias that needs to be addressed in the limitation section.

The non response from the initial sample could also introduced some statistical bias, are the number of non response fewer in the way it has no effect in your final analysis in significance of the results?

When assessing the quality of care using perceived quality by ANC users, this does not reflect the real quality of care if there was an observational quality assessment. Also interviewed women could tend to overestimate the quality or underestimate the quality regarding the person who is conducting the interview. This constitutes a limit of the study although the method is very often used to assess quality.

The limitation of the study included and stated as “Despite the contribution of the study to the literature on maternal health care, this study has some limitations. First, it is a cross-sectional study in which temporal relations could not be assessed. There could be recall bias since the women were asked for events within the last three years prior to the survey despite the fact that, the most recent births were considered”

The non response from the initial sample couldn’t introduce statistical bias, because the number of non response fewer in the way it has no effect in final analysis only thee non response from the total of 422 respondents.

Policy implication and the added value of the paper were not addressed

We try to add the Policy implication of the study in the last paragraph of the background section

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that i have no competing interests

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**Determinants of Maternal Health Care Utilization in Holeta Town,**

**Central Ethiopia**

Kidist Birmeta, Desalegn Woldeyohannes, Yohannes Dibaba

**Review**

**Overall comment**

The paper is relevant, interesting, overall sound and well-constructed. It should be published after the English text is polished and essential revisions are taken in consideration.

We try to polish the English text

WHO recommendations need to appear early on in the paper, i.e. in the abstract and the introduction

Make the introduction and discussion more coherent with one another. Make the conclusion shorter and more to the point.

We made modification on those parts as indicated by the reviewer. We add the WHO recommendation to in the abstract section, and try to make the introduction and the conclusion coherent and more to the point.

Add considerations about limitations of the study.

The limitation of the study included

1. **Major Compulsory Revisions**
   - polish the English
   
   We made improvements on the English of the paper
   
   -revise abstract and introduction (as detailed further)

   **Modification made**

2. **Minor Essential Revisions**

   **Abstract**
   
   -methods too long and detailed in the abstract (from “using SPSS…” could be cut)
   
   -in abstract, first say how many women are involved in the study then introduce percentage.
   
   -MMR is Maternal Mortality Ratio (not rate)

   We made those corrections
Introduction
-explicitly state what the standard recommendations are in addition to saying “Such levels of service coverage are considered low even”. Do not assume the reader knows this information.
-present information relevant to the study (i.e. figures in urban areas) to keep the paper coherence. See comment about discussion
We Made those modifications and stated the figures in the urban, rural and in the country level to avoid confusion.
Methods: OK
Results:
-the statement: “More than half (68%) of the respondents were educated; whereas about 32 % of the respondents were illiterate.” Corresponds to “schooling/no schooling” in table 1
However literacy ( in the text) vs. schooling (in the table) are 2 different things. A person having gone to school may not be literate and it is possible, although unlikely, that a person can read and write without having gone to school. Saying that a person is “educated” is vague. Be more specific and refer specifically to the questionnaire question that gives this piece of information.
We made correction in that part as indicated by the reviewer by stating as the respondents attended school and respondents have never attended school.
Discussion:
discrepancies between figure given in intro:
- 2011 EDHS of ANC utilization for urban area which is 76% - intro says 34%.
In the introduction section we stated the country level which is 34% but the 76% is for urban but to avoid confusion we listed the three figures for urban, rural and country level ANC figures
- EDHS 2011 which is 48.8 % of births taken place at home in urban areas – Intro say 90%.
Be coherent (i.e. urban area only) or put the figures in context (urban, rural, national) .
Similar to ANC level in the introduction section we stated the country level which is 90 % but the 48.8% is for urban but to avoid confusion we listed the three figures for urban, rural and country level of DC figures
-no mention of tetanus injection anywhere else in the paper, if introduced, it should be in the results
We did excluded the tetanus toxoid information in the discussion section, since it was not was not presented in the results section.
-1000 birr: give USD equivalent once in the paper (or put in local economic context).

We gave the equivalent of the birr for USD at the bottom of the table and in the result section.

**Conclusion:**

Avoid a simple repeat of earlier statements. Put in context of WHO recommendations. Could be shorter and emphasize the key results of the paper.

*Modification done as the reviewer indicates*

**Tables and figures**

Table 1
- Present all decimal number with 1 digit after the decimal point (even the means, SD)- do the same in the text and the entire paper.

*Modification made as indicated by the reviewer*
- Give N (total women, either for the whole table (in legend) or per category of it differs from)
- Give units systematically (e.g. income)
- Recheck alignment

*Modification made as indicated by the reviewer*

Table 2:
- Define RC, B, sig (is this p?), exp (B) = OR?

These factors are now described as indicated by reviewer, P = sig, exp(B) = OR

Table 3:
- Check alignment, in particular for **Average family monthly income**: ref category has result line
- Fig 1 (danger signs): write % with only 1 digit after the decimal point
- Fig 2 (reason for non attendance), why the red in the first bar?

**References**
- Ref 13 comes in introduction after ref 2 – not in order.
- Check consistency (bold title)

*Modification are now made for these factors*

**3. Discretionary Revisions**
- Figure 2 and 3 may be better presented in the format of fig 1 (horizontal) because of log text in axes. Also better to be consistent throughout the paper.

*Format for the figures are now changed as indicated by the reviewer*

**4. Questions in relation to review:**

1. Is the question posed by the authors well defined?
   OK

2. Are the methods appropriate and well described?
   Yes

3. Are the data sound?
   Yes

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?
   Yes

6. Are limitations of the work clearly stated?
   No

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
   Ok

8. Do the title and abstract accurately convey what has been found?
   Title ok but revise abstract: methods too detailed, small changes in results as mentioned above. For conclusion, give wider context of current standard recommendation to allow objective interpretation by the reader that conditions are still inadequate.

9. Is the writing acceptable?
   -the writing is borderline and should be polished. The text is understandable but a number of mistakes have to be corrected (verb missing, verb tense, commas missing) – highlighted in yellow in pdf. RECHECK spelling. Some format issues.
   Some – not exhaustive- related points noted as follows (those making the text particularly difficult to read)
   -keep the use of acronyms to a minimum (using only those widely used in the field literature)
   - ensure all acronyms are spelt out on the first use (also in abstract) and in tables and figs, which have to be self-standing.
   -housewife (one word)
   -the livelihood of the majority of the resident depends on […] employees : sentence structure
For the qualitative study, non-probabilistic purposive sampling technique used to obtain a group of women for focus group discussion (FGD). A group of seven and eight women of different demographic and socio-economic status included for the two FGDs. 

Redundant:

The study subjects are sample of women in the child bearing age, who had given birth in the past three years prior to the survey and residents of the town.

AND The study subjects are sample of women in the child bearing age, who had given birth in the past three years prior to the survey and residents of the town.

The questionnaire includes:

- (FGD) guide designed: was designed

-Revised English of “Respondents’ knowledge on danger signs of pregnancy” paragraph (verb and commas missing, verb tense)

- respectful for them: of them

**Modifications made now on those parts as indicated by the reviewer**

- “nearby than Health Institutions (HIs), 20.5%, 19.3%, 18.9% and (9.3%) prefer to: rework sentence by moving the % near the entity that they describe.

- rephrase: This finding is somehow consistent than to the findings of the studies in Ayssaita and Dubte towns of the Afar region which is 54.2%, 30% and 54% in Jijiga town and Bahir Dar Special zone; respectively, births practiced at home.: (for one thing, bring % near the place they refer to; sentence structure)

- considerable women: a considerable number of

- are desireD

- utilized ANC four times more likely than respondents

**Change made as indicated by reviewer**