Reviewer's report

Title: Factors Associated with Utilization of Long Acting and Permanent Contraceptive Methods among Married Women of Reproductive Age in Mekelle Town, Tigray Region, North Ethiopia.

Version: 2 Date: 20 October 2011

Reviewer: Sia Msuya

Reviewer's report:

General:
The objective of the study is timely and relevant for developing country setting where maternal and child health indicators are poor and contraceptive use is low. However the manuscript needs a major revision before it is accepted for publication.

Comments:

Abstract:
The main conclusion that was reached i.e. that more than half of the participants had negative attitudes towards LAPMs, yet this was not supported by the statistical analysis.

Major Compulsory Revisions

Background:
The introduction needs to be brief and focused.

Methods:

• Sampling sub-section is not clear. There is lack of flow and poor use of language so the author is lost on multistage sampling was done.
• The authors should start the sampling section by describing the administrative structure of districts in Ethiopia, then it will be easy to understand when they are referring to ‘Kifle Kitema’, ‘Ketena’ or ‘Quiha’. The letters K1, k2 etc what do they mean? These terms just spring out and the reader is lost.
• The authors need to explain FGD in details. How did they sample the participants? How did they gain entrance into the community to select them? Where were the FGDs conducted? Which topics were addressed in the FGD?
• The tool for quantitative data collection is not well described. Which variables were collected?
• How do the authors differentiate beliefs and attitude? Looking at Table number 5 and 6 the questions are the similar and they do not address attitude or beliefs.
• Table number 5: Implant is one of hormonal contraceptive and one of the side effects just like COC is irregular bleeding. That is fact and side effect which is
known. How can it then be a belief????? Similarly question number 2 address pain and sometimes inexperienced provider may influence this, so how can this be a belief?. I think beliefs addresses broader issues than raised here and the tool used doesn’t collect the information is intended to collect. There are tools which address beliefs on contraceptives, authors should try to read these.
• Likewise the tool to assess attitudes seemed insufficiency. The authors also say they used a mean value to classify attitudes. Wasn’t there a priori cut off point based on literature? Mean can be pulled by extreme values.

Results
• Like in the methods section there is a problem of flow and language.
• There is a mismatch in what is presented in the Table For example the authors said the mean monthly income is 69 in the text and it is 1103 in Table 1.
• Lots of repetition of what is presented in the text and tables.
• Presentation of the knowledge regarding IUCD and implant can be shortened in the text because the authors are repeating everything that is written in the table.
  o Why did the authors calculate the mean score in knowledge? That is not the way it was elaborated in the methods section. Which method did they use to classify the women using mean score or percentages?
• The results in Table number 5 and 6 are addressing knowledge rather than beliefs or attitudes towards long acting contraceptives. Actually what came out in FGD e.g. in page 11, the last paragraph, the participant came up with the attitude that ‘he is discouraging use of permanent methods and in his opinion nobody should use it, because men will tend to divorce their wives if they cannot have more children’
• In page 11 there is a repetition about attitudes on long acting contraceptive methods and beliefs on LAPM is not addressed.
• The main aim of this study was to assess factors that influence the use of LAPMs among married women in Makelle town. However there is no table which is showing in the bivariate analysis of important factors associated with LAPMs which the authors flagged e.g. comparing a group of women with positive vs. negative attitudes towards long acting methods.
• There are too many Tables and most of the information has been repeated in the text. Some of the data presented in the tables can be presented in the text e.g. Table 3, Table 7

Discussion
• The authors mixed results in the discussion part e.g. paragraph number two in the discussion section
  o Long and not focused
• The authors just mention the percentages and fail to bring scientific arguments in the discussion.
• No discussion about the implication of the findings to the policy makers
• Conclusion does not match with the results and there are unclear sentences e.g. 1st sentence in the conclusion
• Recommendations do not reflect the results and the discussion

Limitations
Need to elaborate in detail the study limitations

Minor Revisions
Background:
Use recent estimates and references when giving figures for maternal and neonatal deaths
Is family planning use in Makelle town (37%) higher than the national prevalence? Is that figure correct because the prevalence of use of long acting methods is similar i.e. < 1%

Methods:
• Translation and back translation is not measurement
• The authors measured knowledge by using 10 questions which I presume are shown in Table number 4. In Table number 3 they are also referring to knowledge of long acting and permanent methods. Why separate the two?
• Looking at question number 3 in the knowledge category, that is a subjective and not objective question.

Results
• The authors need to start the paragraph by explaining how many participants were approached and how many participated in the study
• Please explain what does ± mean?
• Please put a subsection on prevalence of women using long acting contraceptive methods just after the demographic characteristics
• In general awareness calculate the percentage out of the total number of participants e.g. 227/440
• Table 3 it is misleading to say knowledge about purpose of LAPM. That is overall advantage of all methods of contraceptives. There is mixing on general awareness of different methods of long acting and permanent methods and knowledge. When participants can mention the method is it knowledge or awareness?
• The authors could also address knowledge components in one Table.
• Overall the authors have failed to use qualitative methods to complement the quantitative aspect.
• Information in Table number 7 should have come earlier because it is giving the reader the proportion of women who are using long acting contraceptive methods and types which they are using. The authors could put this information right after describing briefly the socio-demographic characteristic of their participants.
• When the authors are referring to IUCD they should specify which type of IUCD they are talking about Copper T or Mirena?
• Figures should be removed and incorporated in the text

References
• Typo mistakes e.g. in reference number 17
• Why some references underlined and others are not?

Tables
There are typo mistakes in nearly all the tables
• Table 1:
  o Compress the age range.
  o Put SD after the mean income
  o Put an explanation of ETB equivalent in US dollars
• Table 2:
  o The title of this Table is not clear
  o There are some variables where the totals do not add to 440, yet there is no explanation given for the missing values.
  o What do the authors mean by the following sentences; number of abortion face? responsible for making the number of children? Or face child death? It is not clear what the authors are trying to convey.
  o What does ± means? Explanation in the brackets after mean.
  o
• Table 3:
  o It would be better to calculate proportion of women who could mention different types of long acting/ or permanent methods out of the total participants.
  o Knowledge on purpose of LAPM is not quite true because that question is addressing advantages of modern contraceptive methods in general.
• Table 5 and 6: What is the difference between belief and attitude? It is not clear
• Title are not clear for both tables
• Table number 7:
  o Change into text
• Table number 8:
  o What is COR or AOR? Please explain what they mean.
  o * what does this symbol mean?
  o Age at delivery ?? categories??

General comments:
1. The authors need to have the manuscript edited by a native English speaker.
2. In general the paper is difficult to read and follow.
3. The conclusion and recommendations given are not supported by the results

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**
'I declare that I have no competing interests’