Reviewer’s report

Title: Factors affecting utilization of skilled maternal care: A multilevel analysis of individual, communal and health facility characteristics in North West Ethiopia.

Version: 1 Date: 17 December 2012

Reviewer: Eyob Zere

Reviewer's report:

Major compulsory revisions
- There is a lengthy literature review in the background section. I suggest that it is kept short to put the research problem in context and the rest be used in the discussion section to explain the findings.

- For a reader who is not familiar with the region, it is helpful to provide a short profile of the study site (zone) in the methods section.

- The multilevel model is clearly explained in the narrative; however, the notations need to be explained thoroughly. What do the estimated parameters tell us in terms of explaining the effect of the variables at both levels on use of maternal care services (in general terms)? As this study is relevant for policy and planning, we have to assume a wider target readership and simplify concepts. The full model should also include the “eij” – the random error term at the individual level. It is also good to indicate from the full model, which part is the fixed effect and which is the random effect to ease understanding.

- There is a repetition of the results in the discussion section. Avoid this repetition and instead, try to tie up the findings with the existing literature. For example (Page 12, Para 3), “Maternal service utilization as any other health seeking behavior requires a behavior change that arises through different processes….” – What are these processes? Is there any theory related to behavior change that we can count on to explain this?

Minor essential revisions
• Title is a bit long. It can be shortened as “Factors affecting utilization of skilled maternal care in North West Ethiopia: A multilevel analysis”
• Abstract, Section on “methods” Line 5: … predictive value…: remove as it is taken care of by effect of cluster variation and …
• Methods section:
  o First paragraph not needed;
  o Sample size has not been estimated a priori; it has only been validated for its adequacy after selection. Please explain why this was the case and provide justification.
  o It would be clearer if the methods section has sub-sections such as study population; sampling; data collection; data analysis etc.
we examined the predictive value … - preferred to say “we examined the effect of …, as we are not only estimating the value (magnitude or quantity), but also the qualitative dimension (sign of the parameter – positive or negative)

- Results:

- The initial sample was 1730, whereas only 1668 were included in the analysis. What happened to the 62? Explanation is needed.
- The descriptive statistics at the beginning of the results section would be better presented in a table form.
- Page 9, Paragraph 2: … details…were presented… in another paper: please give a citation of the paper;
- Page 9, Para 3: The multilevel analysis … empty …: suggest to remove empty, intercept-only model is explanatory and clear; the same applies for the subsequent use of empty

- A different font type is used in the “references section” – be consistent and follow the journal style

**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:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests