Reviewer’s report

Title: Early Antenatal Care and Knowledge of Partner HIV Status are Associated with Facility Delivery among HIV-infected Women in Western Kenya; A Community-Based Assessment

Version: 2 Date: 11 June 2014

Reviewer: Carol Wanjira

Reviewer’s report:

Major Compulsory revisions:

Title:
From the title of the research, it is hinted that the authors found an association between Early Antenatal Care and Knowledge of partner HIV status and the choice for a facility based delivery. This has not come out clearly with what the study was aimed at, as the objectives of the study do not come out clearly.

Background:
The point of focus of this paper from the background, to the methods to the results and discussion should be early antenatal care and knowledge of partner HIV status. This is not well presented in the background as there are many ideas which are not linked together to reflect the title as well as the objective of the study.

What is mentioned as the aim of the study (lines 117-118; rates and correlates of facility delivery) and the focus of the analysis (line 160; facility delivery and use of ARVs) seem also to disconnect with the title of the study

Results and Analysis:
The presentation of the results does not flow. For example, since there is a component of comparison between the HIV infected and uninfected, the presentation should be consolidated such that it is clear how the comparison is arrived at.

In the analysis other factors other than antenatal care and knowledge of partner status have been presented and discussed at length rather than those two which should be the backbone of this paper. It would be advisable to either revise the title to include other factors excluded from it for example the stigma, perceptions, use of ARVs or to rewrite the results with a focus on antenatal care and partner HIV status.

Minor Essential Revisions:
Grammatical checks on the whole document to make it coherent. Main focus should be on the results section. It should be a continuous flow of information with not so values in bullets

Sample size determination and selection:
The numbers presented need to be clarified.
What was the actual population sampled? From the calculations, (total no. sampled = 798...enrolled = 652 where are the remaining 146?) (HIV+ = 275, reported 216, where are the 59?)
Was the 275 number from the database sampled randomly?
The 523 random from non-HBCT areas what was the purpose of this?
From the title, the population of focus was HIV infected women, why the comparison that emerges later? What were the actual numbers used for comparisons?
The outcome of interest, (Line 147), on self reporting on place of delivery, what purpose does it serve in the study?
The mothers also did a self report on HIV status. Did it tally with what the researcher knew ahead of the study?
Data for value and morality of stigma is not reported/present (also no explanation of how they were carried out or any background on why they were carried out…..either add that or remove this section)
From the results, there is a mention of comparison between HIV infected women and uninfected women. How was this done as it is not clear from the sample size determination? What value addition did it bring to the objective of this study?
It would also be enlightening to understand what ‘early antenatal attendance’ is and how does it compare to ‘late attendance’ in defining the outcome
How was the community perception brought out in the respondent mothers' responses? From line 154, only mothers who were unwilling to report on themselves why they had non-facility delivery were eligible to answer that question. How many were they and would they really represent the community perceptions on the same?
Check the coherence of Paragraph 11 Lines 151-153
Line 267, are there other studies that can confirm or differ with this finding?
Discretionary Revisions:
Line 288, what are the PMTCT Option B regimen?

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

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests