Reviewer's report

Title: Contraceptive use and Unmet need for Family Planning among HIV Positive Women on Antiretroviral Therapy in Kumasi, Ghana

Version: 1 Date: 12 May 2014

Reviewer: Fredrick Makumbi

Reviewer's report:

Please number your comments and divide them into

- Major Compulsory Revisions

The author must respond to these before a decision on publication can be reached. For example, additional necessary experiments or controls, statistical mistakes, errors in interpretation.

• Abstract should have a brief but clear method section

• It is not very clear, if this was “any contraceptive use” or only modern methods? It is important that this comes out clearly

• I also strongly suggest that your analysis has use of methods categorized as 1) None 2) Condoms only 3) at least a modern method. This is very critical because your study population is HIV+ and may be using condoms (whose frequency and consistence you do not know) for HIV co-infection/infection of their partners. Thus knowing use of more effective methods is important.

• The conclusion should reflect the key reasons you set our to undertake the study. Your abstract only makes conclusion on the unmet need, yet it was not the only key objective you set out to conduct the study

• Background: Please ensure that facts from your literature review are well summarized and stated. Sentence one has a lot of miscommunication of facts! We know that HAART has not reduced the prevalence of HIV! Rather HAART has improved survival of the infected persons, and reduced frequency of opportunistic infections. Please restate this first sentence

• You need to state that women on HAART are at increased of conception because of improved physical health that may lead to more frequent sexual intercourse, and improved immunity. These facts are missing in your background yet they form an important background to why you need to study use of contraceptive among HIV+ women

• The whole background should be revised so as to streamline it, be coherent and provide only relevant information that informs your intended study. So please in a coherent manner clearly state what the problem is, its magnitude, its consequences, what is already known from previous studies, what are the gaps in knowledge and so what you will address(objectives). These questions may help guide you in what key information to include in your background, but in a
coherent manner

• Methods; Please provide more clarity in write up on inclusion criteria, how eligible women were identified (see suggested write up in the submitted manuscript).

• You need to justify why you use a design effect, and why it should be 1

• There is almost no description of the data analysis, which is a very important section of any scientific writing!

• It is not clear how the results were obtained without analysis plan

• It is not stated if the OR were crude or adjusted. You need to state this. However, the final analysis from where you draw conclusions should have adjusted measures of associations, and presented as “adj.OR”

• Results of unmet need are so scanty and the definition of unmet need was not provided. These must come out very clearly.

• A key variable in the analysis is duration on HAART in relation to these outcomes, i.e. unmet need and contraceptive use. Can you please have this done?

• The discussion; It seems to only repeat results, again without much explaining the why and comparing with previous studies. You should be able to compare, contrast and explain your findings in the context of Ghana or specifically Kumansi. For example you need to explain why condoms are the most commonly used methods, and what that means for prevention of pregnancies. What about other methods? What is the level of use of those other methods? What does it mean if they are low, what would you recommend? Is the low use of other methods a consequence of availability of FP in this setting?

• A clear example is a desire for children? if you have 50% in Ghana desiring for children, yet Uganda and SA is about 31% what does this mean? Explain these findings and what implications it may have in Ghana.

• Limitation; I think the limitation are not well explained and do not fit to be limitation. Inclusion of infecund women in the analysis for contraceptive use and unmet need can be handled. The re-analysis should be able to exclude these women. Please think of other limitation

• The first limitation indicates a 34% CPR relative to 25% in general population. However, the results section indicated 42% CPR.

• The conclusion represents findings, however, the findings of CPR are driven by use of condoms in this HIV+ population. This can be very miss leading. I strong suggest that you conduct analysis of other modern methods alone

- Minor Essential Revisions

The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

• There is a general need to write in a more clear and coherent scientific writing
style
• Statistical presentation may only require the measures of association, 95% CI, and may be p-values. Note that P-values that are too small, e.g. p=000000 can be presented as p<0.001
• No need to present chi-square, especially if there are no degrees of freedom because they can not be interpreted.

Level of interest: An article of importance in its field

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'