Reviewer’s report

Title: Contraceptive use and pregnancy rates among women receiving antiretroviral therapy in Malawi: A retrospective observation cohort study

Version: 0 Date: 16 Aug 2017

Reviewer: Abebaw Gelagay

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Comments:

1. In Plain English summary section: Line # 16-23, by what aspect HIV positive women differ from the general population in terms of accessibility to family planning services? What challenges HIV-infected women are facing in accessing a preferred contraceptive method unlike the general population?

2. In Abstract section:

2.1 The background should show the knowledge gap

2.2 In the method subsection: you didn’t say about the analysis method except mentioning the study design.

3. Introduction section:

3.1 Use consistent term! In the abstract, you used the term 'Background' while the term 'Introduction' here.

3.2 It is good to use the latest report on HIV instead of using the 2013 report.

3.3 Line # 27: what reference style did you use?

3.4 Line # 47: You noted that "Efforts to implement more integrated FP services within MPC were initiated, by mid-2013" but this is not consistent with the first sentence of the background section of the abstract.

3.5 Line # 59: You said "We compared pregnancy rates among women on ART to (i) pregnancy rates observed in the previous MPC study". Do you mean you have made a comparison with others study (which is not a component of this study)? If yes, is it appropriate because there may be methodological difference? Why you compared your finding with the finding observed in urban women in the country? because your study participants (HIV positive women) are different by different characteristics for instance birth intention and residency.
4. Methods section:

4.1 You didn't explain about the study design in the main body of the method section. Readers may be confused whether it is a retrospective cross-sectional or cohort.

4.2 line # 19/20 you noted "....for management of ART patients." What do you mean by 'ART patients'? Rewrite it.

4.3 What is your exclusion criteria? Did you exclude HIV positive clients who did not start ART? If yes, why? because both those who are on pre-ART and ART services at ART clinic are equally important in reducing unintended pregnancy and paediatrics HIV/AIDS.

4.4 Who should be the study and/or the sample population? Why did you consider all HIV-infected women to assess contraceptive use rate? The denominator should be only sexually active HIV positive women. The contraceptive is not an issue for those who are not sexually active.

4.5 Look references style in Line # 33/34-Ref [19-21] and Line # 37/38-Ref [11][14], the reference style is not consistent.

4.6 In data management and statistical analysis section, it is clinically important to focus on modern contraceptives excluding the traditional ones because they are less effective and are not recommended.

4.7 line # 10-14 It says ”Use of intrauterine devices, tubal ligation and vasectomy were classified as "more effective contraceptives". What is the definition of 'more effective methods'? Don't you think there are other contraceptives which are highly effective which are not included in your case? Please review it. Please cite references for the definition;

5. Results section:

5.1 You have excluded 3,093 (23%) of women on ART but you said nothing about the exclusion criteria in the method section.

5.2 Please rewrite the result after considering the comments given on the definition of "more effective methods".

5.3 pregnancy rate, Line # 56, you mentioned that the pregnancy rates remained stable at 3.1 per 100 person-year however you noted a varied pregnancy rate which as low as 1.6% at 6 months and as high as 10% at 36 months. How do you see it.
5.4 In the result section, you are not expected to compare your findings with others but you compared your TFR result with previously done one. It is expected in the discussion section. Instead, note you findings (TFR, # of births...)

6. Discussion

6.1 Well written but it is good to enrich it mainly the contraceptive rate by comparing with the results of many other similar studies.

6.2 Consider the reference style

7. Table-2

7.1 reconsider the proportion of more effective contraceptives based on the comment given.

7.2 It is good to show the trends in graph

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