Reviewer’s report

Title: Factors Affecting Adherence to Anti-Retroviral Therapy among Pregnant Women in the Eastern Cape, South Africa

Version: 0 Date: 29 Jan 2018

Reviewer: Salem Gugsa

Reviewer’s report:

Overall:

Use of a wide range of sociodemographic and behavioral variables collected from routine delivery of health services, and the choice of mixed methods make the message of this study very strong. The manuscript is able to triangulate to validate its findings and build on previous studies conducted on the same topic.

General:

Please be consistent about using the term "Anti-Retroviral Therapy", "highly active anti-retroviral therapy" or "Antiretroviral Therapy".

Please caption all quotes in the Results section, unless description was provided as part of the narrative preceding or after the quote.

There have been a recent lessons on this topic that this manuscript is not building on. Consider the following from Malawi, a country that has been implementing Option B+ since 2011, and draw general lessons and comparisons in background and discussion sections to inform other similar settings:


Minor:

Line 19: please fix the 6th affiliation to read as 6th.

Line 105: please avoid the term "near-perfect". It is subjective.

Line 200: consider sexual partner (70.3%) "or" a family member (70.9%) References to partying/parties are not understood in the same way in different settings. Please consider using another term.

Abstract:

Lines 43-45, 132:The methods section of the abstract reads as though 177 in-depth interviews were conducted. Is that right? If not, please revise the last sentence in methods. Further in line 132, it sounds like 177 interviews were actually conducted, but the interviews lasted 20 minutes. That statements then brings the question of whether the interviews were actually "in-depth" or "semi-structured interviews".

Line 57, 433: The general idea is well stated except for the recommendation to do screening "at every antenatal clinic visit". Is this feasible, cost-effective or efficient?

Main:

Lines 143-149: In this section and throughout the manuscript, the term adherence seems to be used in place of 'retention to care'. However, the two terms are different. In this section, it sounds like 'retention to care' was used as a proxy of adherence.

Line 148: Please clarify how you differentiated between 1 and 2. Did you give same weight for 'retention to care' (drug refill) and 'self-reported adherence'. If yes, it is not ideal - but at least it needs to be stated as such, so readers can gauge possible limitations.

Lines 175-176: The description of qualitative data analysis does not fit under the heading of statistical analysis. Consider splitting the paragraph and heading, or renaming the heading.

Line 176: Please state what was used to process qualitative data analysis. Even if it is manual, it needs to be stated.
Lines 182-185: Is the consent described here in reference to the 1709 or 22 women? Also, please state how (at what point) consent was obtained?

Line 198: Does the 82.5% to refer to those with "a minimum of" or "less than" grade six level education, or exclusively for those with grade six level education?

Line 199: "at" or "after"? What about those who came for antenatal care at third trimester?

Line 256: consider not using specific names of facilities, for the purpose of confidentiality.

Line 322: What is TCA?

Line 336: What is 'perfect adherence'?

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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