Reviewer's report

**Title:** Timing of abortion among adolescent and young women presenting for post-abortion care in Kenya: A cross-sectional analysis of nationally-representative data

**Version:** 0  **Date:** 03 Jun 2017

**Reviewer:** Joemer Maravilla

**Reviewer's report:**

Introduction and Methods section were well written. The introduction presented the need for this research while the methods outlined the recruitment process done. My concern with the analysis is the modelling conducted. It seems that the model created was a predictive model and therefore, it needs critical approach on putting the variables together in a single model. I suggest for the paper to reconsider having at least four models. For example, apart from univariate analysis, the authors can conduct all socio demographics (1), 1+ all reproductive history (2), and having a final model wherein all variables with a pvalue of 0.2 from model 2 are included.

**Results**

From the results in Table 3, I suggest the following:

1. Don't use the word prediction as your data is cross-sectional. Correlates or the term association maybe more appropriate.

2. Why does this model only explains second trimester abortion? This was not explained neither in the methods nor in the results section.

In Table 2, Im just wondering why bivariate analysis was only done instead of regression? Moreover, the three variables in this table can be incorporated into the Models in Table 3. Why is it not done?

3. The authors maybe want to perform stratified analysis by age to see the difference in effect estimates by age group.

**Discussions**

I feel like the author is putting interpretations which are not shown in the results. For example, contraception was not found significant after adjustment. Therefore, accounting its protective effect indicates further explanation such as the temporality of contraceptive use in this dataset - which should be acknowledged in the limitation of the study.
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.

No

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I recommend additional statistical review

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