Reviewer’s report

Title: Determinants of first and second trimester induced abortion in Ethiopia - results from a study taken place after a recent abortion law reform

Version: 4 Date: 10 July 2014

Reviewer: Divya Vohra

Reviewer’s report:

MAJOR COMPULSORY REVISIONS

1. Page 3-4, “Study Population” section: For all groups of women recruited into this study, please explain how gestational age was determined. Did women self report this?

2. Page 4, line 4: It is unclear here whether the women identified as having unsafe first and second trimester abortions are combined with the women previously identified as having safe abortions. This becomes clearer later on in the paper, but should be spelled out here. Additionally, please explain why women having safe and unsafe abortions have been combined. The determinants of seeking and obtaining a safe abortion are likely to be different from the determinants of seeking and obtaining an unsafe abortion.

3. Page 4, lines 9-10: Please clarify why women attending antenatal care were selected as a reference group. They are likely to be very different from the women obtaining safe and unsafe abortion services. What percentage of women in Ethiopia receive antenatal care? Is this group an accurate representation of all pregnant women?

4. Page 4, lines 27-29: Again, please clarify that safe and unsafe abortion cases appear to have been combined in table 1.

5. “Results” section (and throughout): I am not convinced that comparing women who obtain first and second trimester abortions to those who seek antenatal care provides compelling evidence about how to direct services, as you claim to want to do in your introduction. A more appropriate comparison group might be women who don’t get pregnant, or perhaps those who have an unintended pregnancy but choose to continue the pregnancy rather than terminate it. Given that antenatal care is still underutilized in Ethiopia, the women you capture in your comparison group are not likely to be representative of the broader category of all women who become pregnant. At the very least, this paper needs a clearer explanation of why this comparison group is appropriate.

6. Page 7, lines 19-24: you have not specifically studied knowledge of the legislation in Ethiopia, and you don’t know if it is true that more highly educated women are better informed of the law. This is speculation that doesn’t follow directly from your results, and should be revised to reflect this or removed from the discussion section.
7. “Discussion” section: there is no mention made of the limitations this study faced. In particular, I am concerned about the use of antenatal care as the comparison group, the decision to group safe and unsafe abortions together, and the potential for bias and issues with small cell sizes (possibly reflected in some very large ORs and confidence intervals). A discussion of data sources and quality would also be helpful.

8. Page 9, line 11: you have not studied “access to contraception” and therefore do not know that the women most at risk for abortion had the least access to contraception. This should not be in your conclusion.

9. Table 3: It is not clear what the difference is between your categories of contraceptives (“contraceptives” vs. “condom” vs. “hormonal contraceptives”). This should be explained in your methods section. Similarly, you should explain why ever use of contraception was the measure you used. This does not necessarily tell you anything about whether contraception was used prior to the pregnancy in question.

10. Figures 1 and 2: It would help to see levels of contraceptive use among the antenatal care group as well as the two abortion groups.

MINOR ESSENTIAL REVISIONS
1. Page 2, line 16: the first word, “have,” should be “has.”
2. Page 2, line 16: “physical” should be “physically.”
3. Page 2, line 20: “It appears as Ethiopia...” should instead read “It appears that Ethiopia...”
4. Page 3, line 7: “Periode” should say “period.”

DISCRETIONARY REVISIONS
1. Page 2, line 25 – Page 3, line 2: This paragraph could benefit from a bit more detail (and a more thorough review of the existing literature). How do you know that Ethiopia’s family planning and abortion services are not evidence-based? And why do you think that identifying determinants of first- and second-trimester abortion will help create this evidence base?

2. Page 4, lines 17-19: It would be helpful to state which variables were controlled for in the logistic regression analysis.

3. Page 5, line 2 (and throughout “Results” section): it might help to remind the reader what you mean by “increased odds for having a first trimester abortion.” You mean increased odds for having a first trimester abortion relative to receiving antenatal care. Spelling this out a few times in the results section may help your readers to follow what you are saying.

4. Page 8, lines 2-13: you suggest that women who seek second trimester abortions might have less information about family planning services. Is it at all possible, however, that women did not use family planning at the time of conception because they wanted to become pregnant? Similarly, it is also possible that many of the women attending ANC were not using contraception and/or had unintended pregnancies. I don’t disagree that family planning
education and services must reach all young girls, but it could help to remind the reader that we do not know why these women were not using contraception, or why some chose to terminate their pregnancy while others chose to continue it.

**Level of interest:** An article of limited interest

**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.