Author’s response to reviews

Title: Syphilis and Human Immunodeficiency Virus infections among pregnant women attending antenatal care clinic of Gondar Family Guidance Association, northwest Ethiopia: Implication for prevention of mother to child transmission

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Author’s response to reviews:

Response for Editor in chief comment

Dear Editor,

We thank you very much for your constructive comments and suggestions for the improvement of this manuscript. We have corrected and amended the manuscript based on your comments and suggestions. To visualize the changes made in the manuscript, we enabled the track change feature in Microsoft word.

Editor’s comment:

1. Say more about method of diagnosis, sample size and study setting. How?
   Reply: Thank you very much; Tests used for the diagnosis of HIV infection in require a high
degree of sensitivity and specificity. Some testing methods may have poor sensitivity and specificity. Like comparing enzyme immune assays and simple chromatographic tests, for example the ELISA has good sensitivity and specificity in diagnosing the disease. So the method of diagnosis may have its own contribution for the variation in prevalence.
Small sample size is an important problem for two main reasons. First, in a situation of low HIV prevalence larger samples are required to detect accurately the small fraction of the population infected. Secondly, in situations where HIV is more prevalent small changes in the prevalence of infection can only be detected with any confidence by larger samples. So it contributes for variation in prevalence figure.
Setting, there is variation in prevalence in high and low burden study settings among pregnant women

2. Are women in this facility likely to be more or less well than the general population? Why?
Reply: Thank you very much; the situation is complex in most cases, the pregnant women who are believed to represent most closely the general population. We have not get evidences showing pregnant women and general population in terms of prevalence of syphilis.

3. In pregnancy?
Reply: Thank you very much; yes, it was in pregnancy

Response for reviewers-2

Dear Reviewer,

We thank you very much for your constructive comments and suggestions for the improvement of this manuscript. We have corrected and amended the manuscript based on your comments and suggestions. To visualize the changes made in the manuscript, we enabled the track change feature in Microsoft word.

Reviewer reports:
Reviewer #2: The quality of the manuscript is improving. However some errors could be corrected before publication.

Specific comments:
1. Result section
   1.1. The first sentences of results talk about the number of participants in the study. In which period? It is better to differentiate prevalence for each year. You cannot find a cumulative prevalence for many years. The different years will serve to estimate trends.
   Reply: Thank you very much, we have amended the paragraph. Regarding the prevalence we have put it in the next paragraphs of the document. We have omitted the prevalence and the trend from the first paragraph in order to avoid repetition based on the previous comment.

   1.2. On paragraph 3.3. The risk for syphilis infection was higher and significantly associated among women aged 20-29 years. You should be moderate in your statement. It was a cross-sectional study. It would be better to say that there is a positive association.
   Reply: Thank you very much; corrected as your suggestion
1.3. Paragraph 3.4. There was a decline in trend seroprevalence of HIV p-value of 0.09 is not significant. There no evidence of decline. In chi-2 for trend we need one value of chi-2 showing the significance of the trend of variable to be analyzed.
Reply: Thank you very much; It is corrected as: The overall seroprevalence of HIV and syphilis between 2011 and 2015 among pregnant women was found to be 4.1% and 1.9%, respectively. There was a non significant decline in trend of seroprevalence of HIV from 5.2% in 2011 to 2.1% in 2015 (\(\chi^2=8.03, P\text{-value}= 0.09\)), and a non significant decline in syphilis seroprevalence from 2.6% in 2011 to 1.6% in 2015 (\(\chi^2=4.81, P\text{-value}=0.31\)). Syphilis shows significant association in each consecutive year but in the overall trend neither was statistically significant. It is clearly stated in the figure 1.

2. Tables should be stand alone
2.1. Table 1. The kind of test is not specified in the title. Is it syphilis, HIV?
Reply: Thank you very much; we have corrected as: blood group, Syphilis and HIV test status

Reply: Thank you very much; it is from January 2011 to April 2015

2.3. I suggest deleting years of diagnosis in table and including them in narrative report, because there is confusion for readers.
Reply: thank you very much; corrected as your suggestion

2.4. Table 2. The Table should be stand alone. There is no year
Reply: Thank you very much; it is corrected

2.5. Table 3. Add year and star to 14.6 (8.49-25.18)* because it is significant
Reply: Thank you very much; it is corrected accordingly