Author’s response to reviews

Title: Health professionals’ acceptance and willingness to pay for Hepatitis B virus vaccination in Gondar City Administration Governmental Health Institutions, Northwest Ethiopia

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Author’s response to reviews:

Dear Editor-in-Chief,

We are very grateful for your handling our manuscript and critically commenting on it. We would like to thank the reviewers for their excellent work in reviewing our manuscript. We made point-by-point responses for each of the comments given by the reviewers.

The following changes are made based on the reviewers’ comments and our further analysis:

1. We re-proofed the manuscript as per the reviewers’ comments.

2. We clearly indicated the distinction between acceptance and willingness to pay for Hepatitis B virus vaccination.

3. Overall, we tried to incorporate all the comments given by the editor and the reviewers.

Please see the point by point responses given below.

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BMC Health Services Research operates a policy of open peer review, which means that you will be able to see the names of the reviewers who provided the reports via the online peer review system. We encourage you to also view the reports there, via the action links on the
left-hand side of the page, to see the names of the reviewers. Thank you. We checked the reports of the reviewers via the action links.

Reviewers’ Comments
Harapan Harapan (Reviewer 1)
Authors have addressed my previous concerns adequately. However, I still have minor concerns. Thank you for your time and critical comments. We tried our best to incorporate your comments as the data allow us.

A. LANGUAGE
This manuscript need to be re-proofread since some typos and grammar issues can be found such as: We re-proofed the manuscript as per your comments.

Abstract:

1. L25: willing to pay not WTP Corrected.
2. L39: "pay" is missing Corrected.
3. L45: Delete Table Deleted.
4. L49: Type of workplace rather place of work Corrected.
5. L51-53: Is it supported by finding? Authors seem talking Acceptance instead of WTP here.

Please use WTP and willing to pay correctly in the entry manuscript. Yes, it is supported by the study. The mean amount of money the participants were willing to pay for HBV vaccination (325 ETB = USD 14.39) was much less than the market price for HBV vaccination around (900 ETB = 3USD3.33).

We edited the terms WTP (willingness to pay) and willing to pay and used them in appropriate way as per the comment.

Introduction:
7. P4L4: HCWs Corrected.
11. Page5: "All health professionals working in the health institutions during the study period were included in the study". In fact authors sampled the participants from the population. Please revise. You are right we sampled the participants from the population. What we tied to describe here is the inclusion and exclusion criteria.
12. P5L52-60: please revise. What does mean 1st, 2nd here? The use of 1st and 2nd is now avoided.
13. P6L6: use was. Avoid is, was&amp;was in one sentence. Please provide the correct definition of WTP here. WTP definition IS NOT willingness of HCWs to pay HBV vaccination. It is simply the full form of WTP. Corrected.
Dear reviewer,

We acknowledge your recommendation to re-proofread the manuscript. We have revised the manuscript to address the issues you raised.

B. ANALYSIS

I recommend this manuscript to be rechecked by a statistician. Dear reviewer, we acknowledge your recommendation, we consulted a statistician and read similar evidence. We still believe that the method we used is appropriate for this kind of study/outcome variable.

C. CONCEPTS

This is my major concern that hasn't been addressed adequately. Authors used the term of WTP to refer to two concepts (one is the true WTP and the second is not WTP). Authors used WTP just by simply as "Do you want to pay for HBV vaccination". This is not WTP. Therefore in point A, I recommend authors to give a clear definition of true WTP. The true WTP results are given in Table 3. Table 2 is not WTP. It is more as Acceptance to me. In my perspective, there are two response variables in this study: One true WTP (Table 3) and another is "Acceptance-like variable" (Table 2). By mixing these variables together and calling them WTP, some parts of this study are confusing in particular when authors using WTP term while it is not true WTP. In short, I recommend authors give a clear definition of Response Variables in this study and use different terms for the question: "Do you want to pay for HBV vaccination?" Dear reviewer, thank you for the critical comments. We revised the outcome variable based on the comments. Willingness to pay (WTP) was the primary outcome/response of this study, and acceptance, as you commented, was the secondary outcome/response variable. We tried to differentiate between the two variables under the methods section, study variables.

Cristina Masella (Reviewer 2)

Dear Author

Thanks for your revision, that improved your paper. I still have some minor concerns.

1 Results section - pg 8 line 14-34: the 6 sentences might be collapsed in 3 without losing their meaning

Thank you for the valuable comment. We revised the paragraph, and reduced it to 3 sentences without losing information as per the comment.

2 You reduced the discussion as requested also by the second reviewer; however I think that something got missing.

For instance your data do not find any role of information/education on WTP; it's a counterintuitive result for me and perhaps it is useful to add some comments

Moreover you don't comment WTP of different professional roles. It's a problem of sample? or income might be used as an indirect factor? are professionals paid the same amount of money in hospital and in health centers?

Thank you for the critical comment.

As we described in Table 1, majority (77.3%) of the study participants were 1st degree holders, and the rest were diploma (6.9%), 2nd degree/Master (14.1%), and 3rd degree (1.4%). Therefore, in the bivariate analysis, education as an explanatory variable was not significantly associated with
the outcome variable, WTP for HBV even at p-value 0.2. This could be due to lack of representativeness from each health professional category. Health professionals with the same qualification and service year may have the same salary. However, health professionals with different qualification and service year do not have the same salary. Actually salary may not reflect the actual income of the health professionals, as some health professionals may get additional money extra-activities. Our study did not measure the actual income of the study participants. This could be one of the limitation of the study/ we do not have data on actual income.

3 Limitations: it's clear that your paper focus on health professionals and not on population. why it is a limit? Thank you for the comment. We accepted the comment and deleted the sentence “The study only considered health professionals and is not generalizable to the population”.

4 I’m not fully convinced of your conclusion: why only in referral hospital? and how much does it cost? Is your government able to support this investment? Thank you for the comment. We revised the sentence as follows: Availing the vaccine with affordable cost in governmental health institutions such as hospitals and health centers may increase WTP of health professionals for HBV vaccination.

The market price for HBV vaccination was around 900 ETB (US$ 33.33) during the study period.

The government might able to supply the vaccine. However, it might not cover the cost for HBV vaccination for all health professional. Thus identifying the WTP of health professionals for HBV is crucial.