Reviewer's report

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

Version: 1 Date: 24 May 2019

Reviewer: Harapan Harapan

Reviewer's report:

I read the manuscript: Health professionals' willingness to pay for Hepatitis B virus vaccination in Gondar City Administration Governmental Health Institutions, Northwest Ethiopia with interest and I would like to congratulate the authors.

In this study, authors tried to assess the willingness-to-pay (WTP) for Hepatitis B (Hep) vaccination among health care workers (HCWs) in Northwest Ethiopia. The topic is important given HCW is one of the group at risk for HepB.

However, there are major and minor concerns related to this study.

A. Major Concern
1. In this article, author basically did analysis WTP as standard definition which is: the maximum price at or below which a consumer will definitely buy one unit of a product. Authors defined WTP as "willing or not willing to pay for hepatitis B vaccination" This can be seen from questionnaire that they used. This seem to be Acceptance to me. Authors did collect the WTP as the maximum price at or below which a consumer will definitely buy HepB vaccination but they did not analyse them properly. Therefore I recommend authors to re-analysis their WTP data. There are many ways to analysis WTP data that have been used in the context of other vaccines including HepB vaccine (see ref below):

   In addition, Contingent value method is used to measure WTP (he maximum price at or below which a consumer will definitely buy one unit of a product). Or authors should change the term, not WTP.

2. Please added Study Variables subheading within Methods section where authors should explain the dependent and independent variables including the definitions and how they were measured in the study. Here authors should explain for example what is medical advice, Therefore please delete operational definition subheading (the definitions should be included to study Variables subheading).

3. The discussion is too long. Authors should focus on variables that were statistically significant only and to the most important findings that are associated with future prevention strategy.

Minor concerns:
1. Abstract
   Data were analysed using SPSS 20 software -- not essential information
total of 423 health professionals participated -- Maybe authors need to included the groups of HCW in the bracket.
the average and above average price per vaccination -- This is not clear. Author should specify the price? This is the given price during the study not the actual price or give the actual price. Also I recommend author provide the value in US$ so international readers can understand easily or even all value should provided in US$

2. Background
It is a major public health challenge in the world infecting more than 66,000 health professionals each year -- Please provide Ref
However, vaccination against Hepatitis -- Delete However
In Ethiopia, the prevalence of HBV infection in health professionals is about 9% and only 5.4% are fully vaccinated (11) -- Ambiguous. 5.4% from total HWC? Please specify
Other study conducted --Another study such as Dengue virus -- dengue virus perceived risk,; disease related knowledge --Revise
Though limited evidences are available on health professionals' WTP for HBV vaccination, evidences are available on WTP for other vaccinations such as Dengue virus, tick borne Encephalitis, and Influenza. --Please add study in Zika as well as sample of re-emerging diseases (Ref: https://www.ncbi.nlm.nih.gov/pubmed/30739794/) as well as a current study on WTP in HepB (https://www.ncbi.nlm.nih.gov/pubmed/30964934)
However, health workers' WTP for HBV vaccination has not yet been studied in the study setting. ---Please delete in the study setting

3. Method
Institution based cross sectional study design was conducted -- Revise: ....study was conducted OR ... study design was employed
8 health centers -- are they community health centers (Please specify because referral hospital is also can be called as health center.
There were about 1,529 health professionals working in these health institutions -- Please provide the group of HWC whereas health professionals who took all the three doses of hepatitis B virus vaccination (fully vaccinated), -- Please revise, for example whereas health professionals who fully vaccinated for HBV ..... who were already positive for the virus Please revise simple random sampling technique was used for --Please explain how Operational definition subheading should be deleted
The tool was prepared by reviewing by reviewing factors on willingness to pay for Hepatitis B Vaccination --Repetitive words, should be WTP, should be vaccination.
The socio-demographic, economic, and service and knowledge related factors were addressed --Move to Study Variables subheading and explain how they were assessed. Not addressed.
The WTP tool was prepared by using the contingent valuation method (CVM) -- Move to Study Variables subheading and explain how they were assessed. Not addressed.
For data collection, five nurses supervised by two supervisors were assigned with the principal investigator critical follow up -- How? How they were recruited? Invitation or approached directly? Face to face interview or they filled the questionnaire assisted by nurses? presented using adjusted odds ratios and 95% confidence interval -- Give the abbreviations
association between outcome and explanatory variables -- Please be consistent using the term, previously authors used between dependent and independent variables were

4. Result
Sixty two point four percent of the study -- Please revise for example there were ...
health professionals were unavailability of HBV vaccine (47.8%) from health institutions, -- What does it mean? No vaccine available or no free vaccine available? If there is no vaccine available, is it appropriate to ask if respondents willing to pay?
The study also revealed that factors such as occupation, getting medical advice, -- Delete also. getting medical advise of what?

5. Discussion
Too tong. See my previous study comment.
Hepatitis B virus (HBV) infection --HBV only
Willingness to pay for vaccination is a --WTP only
In this multi centered, cross-sectional study -- Is it called multi centered?
The main reasons for not willing to pay for HBV vaccination were unavailability of HBV vaccine (47.8%) from health institutions, considering not being at risk of HBV infection (10.1%), lack of awareness about the availability of HBV vaccine (16.4%), peer pressure (8.8%), lack of time (3.8%), --Repetitive with Results
In this study, of 264 participants who were willing to pay for HBV vaccination, physicians were 71 (26.9%), nurses 122 (46.2%), midwives 31 (11.7%), laboratory 10 (3.8%) and others 30 (11.4%) respectively. -- Should be moved to Results Section

Thank you

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:

Needs some language corrections before being published

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