Reviewer’s report

Title: Hepatitis B virus infections among health professional students in Mwanza city, Tanzania in 2016

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Reviewer: Kemal Ahmed Kuti

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AOPH-D-20-00089 Review report
Title: Natural Hepatitis B virus infections among health professional students in Mwanza city, Tanzania

1. Abstract: line 29-31 "Male sex (OR: 1.77, 30 p<0.000), being married (OR: 1.82, p=0.002) and being in clinical practices (OR:1.39, p=0.028) were found to predict anti-HBs positivity." Please specify whether the odds ratios are crude or adjusted ratio.

2. Background: Who is the target for HBV vaccination (mass vaccination/campaign) target groups in Tanzania? Indicate this issue under background section for easy understanding of your justification.

Page 3; line 49-51 "the current vaccination practices in Tanzania and in many low-income countries do not consider the presence of natural antibodies leading to the possibility of unnecessary vaccination in a significant proportion of individuals." Please cite the specific reference for this idea.

Similarly, line 51-53 "Most of the studies in low-income countries have been done to estimate the magnitude chronic HBV infections with few studies on the magnitude of the immunity to HBV." As this idea is obtained from two or more studies you should have cited multiple references. However, I saw none. I hope you correct this.

3. Methods
Sample size, sampling technique and inclusion criteria (line 70-73)
You presented too short and very crude idea (only 4 lines). With this nothing can be understood about how you undertaken this study. So reconsider with reasonably sufficient detail.

Ag and Ab tests (line 76-80)
Indicate the procedures you followed to conduct each type of test from specimen collection to final test result report including how the specimen was handled. And also cite the reference with similar citation style you used in other parts of your manuscript.

4. Discussion
Line 126-130 "The low prevalence of HBs Ag could indicate high natural immunity in this population or high vaccine coverage which was not the case in this population because none of student had received HBV vaccination. In Tanzania, the HBV immunization programme for children below five years of age is just 6 years old, therefore it is unlikely these students were immunized before." It seems good justification. However, re-write using simple, clear and grammatically correct sentences for easy to understand.

Limitation: should be addressed at part of the discussion. So address all the limitations associated with this study.
5. Conclusion
As part of the implication of your study you recommended "screening for presence of anti-HBs for the costeffective implementation of HBV vaccination programme." Clarify what you mean by costeffective implementations. What is your recommendation regarding the factors?

Level of interest
Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

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