Author’s response to reviews

Title: Analysis of strategies to attract and retain rural health workers in Cambodia, China and Vietnam and context influencing their outcomes

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Reviewer #1: HRHE-D-17-00232


Reviewer's Report: 14-02-2018

The study addresses an important area of health workforce retention. The work is well planned and well presented including a comprehensive search of relevant literature. However, authors may wish to address following points in regard to a few references they used. In references 5 and 8, referring to two important WHO documents made accessible through (Google Books) which allow limited access. Instead, WHO site should be a better source for the two documents. Authors are advised to change sources in reference list (Reference 5: http://www.who.int/whr/2006/whr06_en.pdf and Reference 8: http://www.who.int/hrh/retention/guidelines/en/). Reference 14 is a repeated reference; same as Ref. 5. Authors are advised to delete ref. 14 and amend text to refer to ref 5 instead of 14 in background section, page 5. Again, on references, it is strange, in a scientific publication, to look for GDP in a CIA website (refs. 21-23) as a source and ignore available sources like e.g. World Bank, OECD, or UN agencies! Furthermore, data on GDP given in manuscript need verification.
Response:

Thank you for the helpful comments and suggestions. We have made the following changes.

1. References 5, 8, 14, 21-23 have been updated or revised.

2. GDP per capital of Cambodia, China and Vietnam has been revised based on World Bank 2016 data.

Reviewer #2: This study aims to explore the effects of "contexts" -socio-economic and health system features- on rural health workforce interventions in Cambodia, China, and Vietnam. The following are major and minor comments I have upon reviewing the manuscript:

Major comments:
-Case selection: The rural provinces chosen in each country raises two questions about within and between case selection. First, how are they representative of all rural provinces in each country. For example, is Bac Giang a developed or developing region in Vietnam, as per line 50 pf p.9? Second, how are they comparable to one another?

Response:

Thanks for the comments.

Inclusion criteria for rural provinces have been added in the part of sampling strategy, which include: 1) rural and remote location; 2) with interventions on attraction and retention of rural health workers; 3) wiliness to collaborate. Therefore all three provinces in the three countries are from developing regions.

As we have mentioned in the discussion of limitation, “the selected sites might not be representative of the whole country.” In this qualitative study, we used purposeful sampling to have in-depth understanding of the phenomenon of attraction and retention, rather than to enable generalization from the study sample to population.
The three provinces are all from developing rural and remote areas in the three countries, but direct comparison between the three provinces is beyond the scope of this study. Rather, this study tried to explore how attraction and retention of rural health workers are influenced by specific local socio-economic and health system contexts.

-Sampling: The 28 interviewee sample from the three country cases is based on the principle of "information saturation" (p.6, line 43). I reviewed the O'Reilly & Parker (2012) paper you cited, or reference #15, which questions researchers' acceptance of the concept of saturation in qualitative research. While I agree with their argument that the aim of qualitative inquiries is not to acquire a fixed number of participants, but to gather sufficient depth of information as a way of fully describing the phenomenon being studied, I don't think you've achieved the latter aim based on my comments on your results. On an equally important note, if you review the Glaser & Strauss (1976) book they cite, it's referred to as "theoretical saturation" and not "information saturation".

Response:
We re-write on the sampling methods based on your valuable comments. Our sample process tried to cover a variety types of key informants so that they could provide rich information on the topic being studied. This is more like to concept of "theoretical saturation" rather than “information saturation”.

-Analytical approach: It is not clear to me whether your analytical approach is inductive, deductive, or abductive. I was under the impression that it's inductive until the latter of the paragraph following the sentence: "Key interventions...", which suggests a deductive approach to data analysis. Put another way, if your approach is an inductive one, then I would suggest further interrogating your data because no clear themes cutting across all the three country cases or, more specifically, provinces are stated. If your approach is a deductive one, where you are slotting the data into a framework, then I would suggest expanding Table 3 to include the interaction of the six contextual factors by the three key interventions (in Table 2). You did not refer to any theory to suggest that you are taking an abductive approach. Regardless of approach, the two tables are problematic.

Response:
Qualitative analysis of this study applied combination of deductive and inductive approach (Forman, et al, 2015). First, the codes in the thematic framework were largely from existing frameworks (deductive), for example, the four types of interventions as in the WHO
recommendations (2010), the general categories of context factors as in Collins (1999) and Liu et al (2015). Second, after reading the interview transcripts and getting familiar with the data, new codes emerged from the analysis, for example, a new category of context factors, decentralization, emerged as a new code. This is more an inductive process. Third, after the coding process, the summary and interpretation of coded data is again an inductive process.

For table 2 and 3, a context factor from one country may not reappear in another country. Most context factors are relevant to more than one type of intervention. Therefore, it is too complicated to draw a cross table between context factors and interventions.

We have made this process more clearly in the paper.

Table 2 is missing a column for regulation, one of the four key interventions from the WHO (2010) report.

Response:

Regulation was reported from the interviews, including compulsory rural services before promotion in China and allocation of rural health workers by Ministry of Health and Provincial Health Department in Cambodia. Now they are added to table 2.

In Table 3, with the exception of two cells, I do not see unifying comments in the cells under the Description and Implications columns. For example, you talk about dual practice in Cambodia and Vietnam, but shift the discussion in p.16 to private hospitals for China. The comparison should be flushed out for all three countries, whereby you talk about dual practice in China and private hospitals in Cambodia and Vietnam as well, else it would seem as if you're comparing apples and oranges and you're cherry picking from the data collected.

Response:

The main purpose of this study is to explore the implications of social economic and health system contexts on attraction and retention of rural health workers, rather than comparing contexts of three countries. Each country has its unique contexts. It is hard to have rigid comparison of all the context factors between the three countries. For instance, the poor primary education system that did not meet the selection criteria for medical education was only found in Cambodia, but not the in the other two countries. But when all three countries have the same context factor emerging from the interview, we presented them all (like economic development and health financing).

Having said that, the example cited in this comment (dual practice and private sector) is caused by unclear presentation. Here dual practice also means practice in private sector. Private health
sector is prosperous in all three countries, although in different forms. We have tried to make this clearer.

-Results: The presentation of your results suggest that you have not thoroughly interrogated your data. For instance, the cluster of codes under each theme is not clear, per my comment on the inductive approach. Second, the number of times a code is mentioned to support a given theme is not mentioned. Lastly, a quote from one country is presented in each section, but not comparable or conflicting quote(s) from the other two countries.

Response:

Thanks you for the helpful comments. We added the number of coded segments in table 3.

As previously explained, direct comparison of context factors between the three countries is not the key objective of the study, and is technically impossible due to the uniqueness of some context factors. Additionally, due to word limitation, this paper presents representative quotes for each section to show implications of context factors, rather than repeats each context factor for all three countries.

Minor comments:

-Background section, p.4, line 9: There is no SDG solely devoted to UHC. UHC is a target of SDG 3.

Response:

Here is the revised sentence. “A sufficient and qualified health workforce is vital to achieving the universal health coverage as stated in the sustainable development goals (SDGs).”

-Study design subsection, p. 5, line 50: "Existing collaborations was used as the other selection criteria for location". Existing collaborations among whom? Also, I think you meant "criterion", not "criteria".

Response:

Here is the revised sentence. “The authors had existing collaborations with country partners.”
- Data collection subsection, p. 6, line 20: Take out duplicated "in".

Response:

The duplicated "in" has been deleted.

- Data collection subsection, p. 6, line 38: Take out the period before "Local".

Response:

The period before "Local" has been deleted.

- Cambodia sub-sub-section, p. 10, line 18: "Interviewees" not "Interviews".

Response:

"Interviewees" has been replaced by "Interviewees"

- Cambodia sub-sub-section, p. 10, line 18: "...and a high..." not "...and high...".

Response:

"...and high..." has been replaced by "...and a high...".

- Contextual factors...subsection, p. 10, line 43: "table" should be capitalized.

Response:

"Table" has been capitalized.

- Conclusions and recommendations, p. 20, line 18: Do you mean landscape analysis and not systematic context analysis?

Response:

We changed this to ‘landscape analysis’.
Conclusions and recommendations, p. 20, line 27: "in" should not be capitalized.

Response:

“In” has been replaced by “in”.

Minor changes were also made on the part of acknowledgement.