Reviewer’s report

Title: Assessment of Interventions to Attract and Retain Health Workers in Rural Zambia: A Discrete Choice Experiment

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Reviewer: Michelle McIsaac

Reviewer's report:

- This is an interesting paper on an interesting and important HRH topic.

- This paper is well written and easy to read.

- One of the stated motivations of the study is the current limited generalizability of evidence to the Zambian context. Therefore, it is important for this study to demonstrate that it addresses this stated research gap. A non-representative sample (even if collected in Zambia) is not likely going to be generalizable.

- A table demonstrating the representativeness of the sample would be helpful to the reader. The stated intention to sample purposefully with the goal of obtaining a sample of participants that was diverse, based on key demographic characteristics and generally representative of the Zambian health workforce (particularly with regard to the health worker cadres represented) should be supported with evidence to that effect. Description of the main cadres in Zambia and how closely does the study sample matches this would be of use. Even better if you can compare the demographics in Table 2 to that of the actual health workforce. If data are not available perhaps you can compare your sample to previous surveys in Zambia … eg Human Resources for Health 2014 12 (Suppl 1) :S1. Also, some information on how geographically representative the sample is (ie which districts are represented in the sample) would be important to provide.

- The statement in the discussion of "The sampling strategy aimed to and provided a sample that reflects the national workforce in several key demographic ways, such as in the cadre breakdown, and includes health workers from a wide range of geographic regions" needs to be supported.

- Some context from Zambia could add to the paper. For example, what is the proportion of health workers currently working in rural areas in Zambia? Is that consistent with the over 73% of participants reported that they were likely or very likely to work in a rural area in the future? Or how does that compare with the base or reference level of 41.8% of health workers would take the rural job and 58.2% would take the urban job?

- It is not clear what is the source/reference base for the cost estimates used in the study. How is the estimated base salary of YMW66,576 is estimated, MoH data?
- Why is the salary cost assumed to be the same regardless of the cadre?

- How are the housing cost, vehicle, scholarship or estimated cost to upgrade a medical centre estimated? Are these based on expert opinion or other referencable source?

- A table explaining data sources and methods would be helpful for the cost estimates. What are the assumptions that have been made for the annualized rates?

- How is 20% of the base salary being $932 calculated? 20% of the base salary stated in the table ($7,084) is $1,417…?

- Comparing a financial incentive of a nominal annual value that is roughly equivalent to that of the superior housing would have helped to add merit to the conclusions (ie how does a 40% rural allowance with a marginal cost of approximately $1,800 compare to superior housing).

- In the discussion, the context in Zambia with its reported high staff turnover, especially in rural areas needs to be accounted for. A discussion on how this impact the conclusions could be helpful.

- In the discussion there needs to be careful consideration regarding attribution of findings of the DCE on attraction to rural areas to the retention of health workers in rural posts.

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