Reviewer’s report

Title: "Doctors ready to be posted are jobless on the street…” the deployment process and shortage of doctors in Tanzania

Version: 0 Date: 25 Jun 2018

Reviewer: Sunanda Ray

Reviewer's report:

General impressions: The research and discussion presented in this paper are useful, topical and of public health importance. Some specific comments follow:

1. The paper is long and could be cut by at least 30%. Many of the repetitions throughout the paper could be removed to make the paper tighter and more readable, and for the key points to stand out more (for example lines 70 and 81 are repetitions, also lines 157 and 169, among others). The language could be condensed significantly with sentences made shorter with fewer extensions. Some sentences are hard to follow and require re-reading several times. For example, line 89, the phrase "among other health workers" is not clear. The relevance of lines 101-107 is not apparent. The section on study setting repeats what is in the introduction, when this should be strictly about the setting the 20 respondents were based in, where they were working (public or private sector, urban or rural) and what specialities they worked in, if any.

2. Since this is a journal for an international audience, some brief background on human resources in the Tanzania health system is necessary. For example, readers may not understand how a District Medical Officer does not have a degree or the kind of cadre an AMO is, since they also called medical officers.

3. Study design line 166: the interviews were carried out with doctors who are the subjects of the study. Key informant interviews would have been with policy makers, HR managers and so on, people who have specialist insights of the situation. It would have been useful to interview key informants from the MoH for explanations on points raised - are there publications that could be referred to on this? For example, line 141 refers to implementation of retention strategies having failed - is anything known about why they failed?

4. Line 193 - the abstract states sampling was done by snow balling, while the data collection section states chain referral, so terminology needs to be consistent.
5. How did the interview guide address each stage of the conceptual framework, ie the pool of available staff, recruitment and placement?

6. It is not apparent what the advantage is of Table 1 when the content is repeated in the text following it, and which explains the situation more clearly.

7. Synchronization, line 286: This idea is not clear. Presumably the intern posts are needed for the next batch of interns, so what kind of posts would be filled by synchronization of internships with new appointments? Are there a limited number or could all interns move into such posts? Is this a first come first served situation? It is not clear how this would be a solution for more than a few doctors, unless they are linked to specialist training, in which case some kind of selection process would be applied.

8. What proportion of medical doctor posts are vacant in regional and district hospitals? Who are the employers? What is the role of local government in these hospitals? Were the respondents expecting incentives similar to or above what their colleagues get in central hospitals? Is there a government policy on this? In some countries mid-level workers are treated as substitute doctors and have been running the peripheral health services for a long time, often without recognition. It may be disruptive to have relatively junior doctors coming for a year or so and then leaving, to be replaced by another junior person. Changing these relationships would need more than deployment, including some consideration of the relative skills mix of the MDs and AMOs.

9. Discussion: The methodology used does not speak to the conceptual framework, though it provides some understanding from the respondents’ point of view what some of the barriers to deployment are, specifically for recruitment and placement. In relation to the pool of available doctors and employment opportunities, what data was collected on this? The proportion of vacant posts in urban and rural areas is not provided. Is the problem the shortage of posts rather than shortage of doctors, or is it the preference of doctors to be in certain areas? Perhaps the MoH is deploying doctors to areas of greatest need which are not the ones the doctors selected for themselves? It is difficult for the reader to assess these factors. The person quoted who has stayed in his/her preferred place for more than 10 years was a specialist in a consultant hospital (line 340) which is somewhat different from being in a rural hospital.

10. If parts of the conceptual framework (the pool of available staff) were to be addressed from findings of previous studies (line 423), this should have been part of the methodology (ie literature and document review). One possible source of data that was not mentioned is the regulatory body that registers doctors as qualified professionals.
11. Trustworthiness: The readers have not been provided with information on the 20 interviewees other than approximate age, gender and that 14 out of 20 graduated from the same institution, so it is difficult to assess credibility (line 536). Lines 541 and 542 are not clear. What does "thick description" mean? This is a qualitative study with interviews of 20 doctors, so only represents their views and cannot be seen as representative of the wider medical profession in Tanzania, though it provides ideas which could be followed up using other research methods. The reader is also only given one side of the story. A weakness of the study is the absence of key informant interviews on government policy, or interviews with other cadres as to how they perceive the role of doctors in district and regional hospitals.

12. The paper would be stronger if the findings, which identify some of the problems, were directly linked to meaningful and sustainable solutions. Short-term, mid-term and long-term strategies should include how to achieve the suggested changes. For example, the lack of teamwork was identified as a problem; what suggestions do the authors have on how this can be improved, based on evidence from the literature of methods of creating teams among different cadres of health professionals? Perhaps part of the problem is that doctors are going into rural hospitals at a junior level without the management skills needed to be team-leaders, and are providing services at the same level as AMOs, which leads to some territorial conflict. Who performs caesarean sections in rural hospitals in Tanzania? Also Family Medicine as a newer speciality for doctors, providing a specialist qualification as well as a career path for doctors working in rural areas, and now established in many African countries, could be referred to, with its emphasis on leadership skills and oversight of primary health care (provided by mid-level health workers).

13. The authors could refer to the significant literature on incentivizing health professionals to work in less advantaged areas and the role of rural attachments (community based education) in medical education.

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

An article of importance in its field

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

Needs some language corrections before being published
Declaration of competing interests

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

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.