Reviewer's report

Title: Teaching Programs for Health Systems Research in Schools of Public Health in East and Central African Universities

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Reviewer: Dan Kaseje

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Teaching Programs for Health Systems Research in Schools of Public Health in East and Central African Universities

Mabel Nangami, Lawrence Rugema2, Bosena Tebeje3, Aggrey Mukose4

1. Is the question posed by the authors new and well defined? The research question is not clearly defined in the introduction, background of the article. There is an allusion to it in the background section of the abstract, then in methods section and then in the discussion but all three statements are not quite the same. The reader is left wondering whether the study is about the relevance of the curriculum, institutional capacity, or delivery of the academic program (competency based) is relevant to Health Systems Research.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work? While the selected methodology was appropriate, the description of the process could be improved to include definition of the study population, sampling design (given that the study had a quantitative dimension), and data analysis design (how quantitative data would be analyzed, and how qualitative data would be analyzed). The question of validity of the tools is raised but not treated adequately.

3. Are the data sound and well controlled? The presentation of data is affected by the inadequate definition of the research question and sub-questions. A better definition would have helped in the organization of presentation of results. As it is the presentation is rather mixed up and demands thorough editing to bring consistent points together in paragraphs, presenting quantitative findings and synchronized with qualitative findings, where possible.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?, see 3 above

5. Are the discussion and conclusions well balanced and adequately supported by the data? Given the available literature on Health Professions (Medical) Education and Health Systems, I expected a more thorough review of existing literature to aid in the contextualization of findings, and thus facilitate the recognition of contribution to knowledge. Often paragraphs in this section brought in new ideas not quite presented in the results section. Not all recommendations derive from findings presented.

6. Do the title and abstract accurately convey what has been found? The absence of one well defined research questions renders an assessment of the
The research questions alluded to are not all captured in the title which is about teaching, while findings dwell on capacity for curriculum development and competency based education.

7. Is the writing acceptable? Writing is acceptable but can be improved by organizing the material better, and paragraphing main thoughts in separate paragraphs. In the present form most paragraphs present mixed ideas not connected within each paragraph. This also applies to sections and subheadings describing content not captured in the sub-heading with some sub-headings designed to try capture a salad of ideas.

Please make your report as constructive and detailed as possible in your comments so that authors have the opportunity to overcome any serious deficiencies that you find and please also divide your comments into the following categories:

- Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

Better definition of the research question in the introduction as well as sub-questions which should improve logical flow and consistency, as well as organization of the findings, discussion, conclusions and recommendations.

Describe the gold standard/measuring tool, perhaps based on key HSR competencies, that was used to compare what is currently being done by schools of Public Health and what ideally should be done.

Describe sampling design and data analysis, to improve presentation of results, guided by research questions and sub-questions.

Describe the data collection process, standardization, validation and reliability of tools.

Describe methods used to analyze the quantitative and the qualitative data.

Present quantitative and qualitative data in findings and synchronize the two where possible.

Reorganize materials presented in sections and paragraphs so that ideas are separated out and not mixed up. E.g. you thrown in a statement on short courses right in the middle of a paragraph describing a degree program (in the section “structure of existing curricula”)

In the section “capacity to design curricula, teach and mentor” each element should be in a paragraph since they represent quite different abilities that were being assessed.

- Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

It would have been useful to have a listing of HSR competencies that the courses should develop in graduates, to guide assessment of curricula in terms of structure, and content (to answer the question as to whether the curricula are appropriate to HSR)

An assessment of methods of delivery is missing, apart from placement in
practicums. Content delivery skills would be useful to bring out.

Presentation of teaching load in terms of teacher student ratio only appears in discussion and not in results. This is an important element of teaching load at the post-graduate level and should be presented clearly.

Table on number of courses and number of staff does not convey the intended message, being quantitative rather than qualitative. It would be useful to reflect the capacity of teaching staff either by qualifications or grades. Having 80 junior lecturers may not be better than having 40 with a better mix of Professors, Senior Lecturers and Lecturers appropriately distributed in the different courses offered.

Strengthen contextualization of findings in the body of existing literature, by additional literature review relevant to key findings, to facilitate identification of contribution to knowledge.

Remove elements in the discussion and recommendations that are not derived from data presented, such as relevance to workplace environments, staff-students ratio, etc and ensure that conclusion is not beyond the implications of the research question, when better defined.

Tables 3 and 4 could be made less busy, yet more informative and 5 could reflect HSR competencies, give the apparent interest in competency based training.

- Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

It is not clear how the lack of a baseline is a limitation, or what baseline is expected. In my mind it should have been possible to agree on what HSR competencies are needed, to assess whether the curricula available address the expected competencies and whether the delivery and assessment of the courses are appropriate.

HSR does not stand out throughout the presentation

Once you have done this, there are also some questions for you to answer, including one that asks your advice on publication.

The authors are encouraged to describe what contribution their paper makes to the current literature.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'