Reviewer's report

Title: Strengthening referral systems in community health programs: a qualitative study in two rural districts of Maputo Province, Mozambique

Version: 0  Date: 15 Sep 2018

Reviewer: Maia Ingram

Reviewer's report:

The manuscript addresses issues related to effective referral systems using CHWs in Mozambique. The paper is well written and the discussion section is relevant to discussions of how CHWs can facilitate the delivery of primary care by linking community members with needed resources. Overall, I think the article would benefit from some reorganization of the background and framing of the study; I think the focus on the role of CHWs in the linkage system should be up front, for example in the title, and it is not clear to me how the authors are defining referrals; they seem to have distilled a broad spectrum of activities into a word that does not adequately describe what they are studying.

Points to consider:

- Add CHWs to the title of the paper. The manuscript seems much more about how to facilitate effective CHW roles than refining a referral process.

- The study appears to be a process evaluation, which is of value, but should be identified as such. Note that the study does not include any outcome measures of CHW referral.

- The first sentence in the paragraph beginning on line 37 is important and needs to be clarified, perhaps broken into two sentences. I would like the authors to give a good definition of what they mean by referral, most important, does it include closing the loop on ensuring that the community member accesses to needed service? The second part of the sentence makes it sound like the referral process impacts the performance of CHWs, what does this mean? The authors go on to give a good description of the importance of the referral process, but it seems to be that they have distilled an array of CHW activities into the word referral. I think this could be addressed by perhaps using a different term, or carefully defining what is mean by referral. In the results section, it is clear that the data is referring to many CHW activities beyond referral.

- Figure 1 is useful, but needs explanation. It appears to incorporate changes that were initiated as part of the REACH OUT study, so perhaps just placing it further down in the text will help. None of these processes, i.e. referral feedback, have been described. A figure should stand on its own. Perhaps a flow chart would be better than a square so that would be one entry point that ended the second would be that they are referred to PHC facility. Not sure how the referral feedback is provided and to whom? What does feedback mean? Then how does CHW document feedback received? It doesn't really seem that the arrow would go back to the center.
- The methods section should make it clear that this is a process evaluation. In the methods section or as a limitation, the authors should address the fact that they did not collect outcome information, for example, how many referrals were completed.

- In the data analysis section, reference [25] is not a qualitative methods reference. The "unifying approach" is not described. The methods described in this section does not seem to translate to the results section, which seems more like open general coding. Queries are referred to but not well described. Inclusion of the code book or description of themes an subthemes is needed. This would also help focus the results section which is unfocused and shifts from one kind of informant to another.

- Table 1 should be broken up by the type of data collection activity and key informant group. I am not sure if all demographic characteristics are relevant to the discussion.

- I may have missed this, but who are the CHW supervisors? What kind of experience, training, expertise do they have?

- I really like the discussion section, I think the points the authors make are very relevant to the integration of CHWs into primary care in low resource settings and how best to optimize their roles through infrastructure, etc. However, I think this can be addressed by better defining referral, or broadening the term to something like linkage.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Unable to assess

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript
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:

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
Do you want to get recognition for reviewing this manuscript? Add a record of this review to Publons to track and showcase your reviewing expertise across the world’s journals. Signing up is quick, easy and free!

No