Reviewer's report

Title: How do Health Extension Workers in Ethiopia allocate their time?

Version: 1  Date: 10 July 2014

Reviewer: Ferruccio Vio

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Revision by Ferruccio Vio

In my opinion, the manuscript is valid, data are solid and there is internal coherence between them, discussion and conclusion. It is also easily comprehensible and interesting.

1. Is the question posed original, important and well defined?

There is no difficulty to identify and understand the question posed by the authors.

The study presents evidence on HEWs' performance achieved with relatively limited resources.

The Health Extension Program in Ethiopia is proving to be a very interesting and well succeeded experience. I am impressed by the number of trainings and supervision (and by time spent on trainings as a percentage of total activities) reported by the HEWs. If this is valid for all Ethiopian HEWs, it is a remarkable performance of the HEW program as well as of the Ethiopian HR management and training system.

Information focusing on HEWs' performance is still more relevant because the HEW model can be used by other African countries where problems of both physical and cultural access to primary health care in rural areas are common. (Although the cost of a similar endeavor, including training, technical support and supervision, as well as the need to have in place a well-structured and disciplined society (for example, in the systemic use of HDA) should not be underestimated).

Conclusions are clear. As literature on CHW is controversial, study results have been stimulating and I can say that I learned something new.

The research question posed by the authors should be easily identifiable and understood.

It is useful to both the editors and authors if reviewers comment on the originality and importance of the study within the context of its field. If the research question is unoriginal because related work has been published previously, please give references.

Reviewers should ask themselves after reading the manuscript if they have learnt something new and if there is a clear conclusion from the study.

2. Are the data sound and well controlled?
According to the “discussion” section, data were sensibly checked. No controls were used by the study. Results, if referred to the regions where the study was carried out do not require further evidence.

If you feel that inappropriate controls have been used please say so, indicating the reasons for your concerns, and suggesting alternative controls where appropriate. If you feel that further experimental/clinical evidence is required to substantiate the results, please provide details.

3. Is the interpretation (discussion and conclusion) well balanced and supported by the data?

In general, data are presented and discussed in an unbiased way. As it was a study focused on a specific reality (not yet investigated) of a single country, no reference to other works are applicable.

The interpretation should discuss the relevance of all the results in an unbiased manner. Are the interpretations overly positive or negative?

Conclusions drawn from the study should be valid and result directly from the data shown, with reference to other relevant work as applicable. Have the authors provided references wherever necessary?

4. Are the methods appropriate and well described, and are sufficient details provided to allow others to evaluate and/or replicate the work?

The method is clearly explained and straightforward. Explanations are detailed and fully comprehensible. It could be repeated in other Ethiopian regions and the study can be useful in other countries and settings where community workers with promotive, preventive and curative tasks are employed.

No further statistical review is needed

In the discussion, study limitations are correctly acknowledged: e.g., self-administered diaries may under-estimate time spent on non-productive activities; I would just add that recall biases can be present when remembering infrequent activities implemented in the previous 12 months.

Please remark on the suitability of the methods for the study, which should be clearly described and reproducible by peers in the field.

If statistical analyses have been carried out, specify whether or not they need to be assessed specifically by an additional reviewer with statistical expertise.

5. What are the strengths and weaknesses of the methods?

The study has been performed in and is valid for the SNNPR and Oromia regions that account for about half of the Ethiopian population. It should be accurate to show that the HEWs program has been implemented all around the country with the same degree of success before generalizing the conclusions to the national HEW program altogether.

Please comment on any improvements that could be made to the study design to
enhance the quality of the results. If any additional experiments are required, please give details.

If novel experimental techniques were used please pay special attention to their reliability and validity.

6. Can the writing, organization, tables and figures be improved?

The manuscript is logically organized. All tables and the final figure present simple data and are well easily understandable. I would suggest neither any modification nor to use graphics instead of the tables.

Although the editorial team may also assess the quality of the written English, please do comment if you consider the standard is below that expected for a scientific publication.

If the manuscript is organized in such a manner that it is illogical or not easily accessible to the reader please suggest improvements.

Please provide feedback on whether the data are presented in the most appropriate manner; for example, is a table being used where a graph would give increased clarity? Are the figures of a high enough quality to be published in their present form?

7. When revisions are requested.

I would suggest some more explanation regarding the arguments used to support the authors’ conclusions.

According to the manuscript, several cooperation agencies were working in the controlled trial on community-based new-born care. Their specific role should be better explained (in terms of logistic support, supervision, medicine supply etc. to the health posts and staff) as it is capable of influencing results, making difficult to generalize conclusions to health posts not involved in the trial. In fact, better trained staff ad available medicine may have an overall positive effect on increasing public confidence and therefore boosting activities and improving performance. This, in turn, may have even an effect on the percentage allocated to the various activities taken into account by the study. It should be interesting to know how “normal” health posts are supplied and equipped and how many supervisions their staff receive when compared with health facilities supported by the COMBINE trial. Distinction between efficacy and effectiveness should therefore to be considered.

I would suggest to revise the sentence “(the HEWs) have a critically important role in improving the health outcomes of mothers and children in Ethiopia“. It should be said “(the HEWs) can have a critically important role in improving the health outcomes of mothers and children in Ethiopia“. Moreover, the role of other factors, such as life conditions’ enhancement, improvement of female literacy among the poor, as well as strengthening of the health service networks is unknown and can be still more important than HEWs’ action.

Reviewers may recommend revisions for any or all of the following reasons: data need to be added to support the authors’ conclusions; better justification is
needed for the arguments based on existing data; or the clarity and/or coherence of the paper needs to be improved.

8. Are there any ethical or competing interests issues you would like to raise? I did not find any problem related to lack of adherence to ethical standards of scientific/medical research. Moreover, according to the manuscript, written consent was obtained from all study participants and confidentiality of each participant was protected.

9. Reviewers are reminded of the importance of timely reviews.

10. Confidentiality

11. Are the included additional files (supplementary materials) appropriate? The Word additional file contained appropriate details on the study methodology.