**Reviewer’s report**

**Title:** Beyond coverage: Improving the quality of antenatal care delivery through integrated mentorship and quality improvement at health centers in rural Rwanda

**Version:** 0 **Date:** 29 Aug 2017

**Reviewer:** Anthony Ajayi

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REVIEWER’S REPORT

Title: Beyond coverage: Improving the quality of antenatal care delivery through integrated mentorship and quality improvement at health centers in rural Rwanda.

Thank you for inviting me to review this article.

The title of this manuscript is catchy, however, it raises expectations that are not met in the article. Rwanda is one of the few sub-Saharan African countries that achieved Millennium Development Goal 5 and it is important to document strategies used. Indeed, maternal mortality is preventable with the use of quality maternal healthcare. Thus, increasing coverage as well as improving quality are crucial to preventing maternal deaths. This study attempts to examine the effects of a MESH-QI programme on completeness of danger sign assessments. Even though the topic is important, the article did not present scientifically sound evidence that could warrant publication in an international journal. Perhaps this article could be further improved to fix its major failings. Here are some detailed comments:

The major deficiency of this study is the failure to provide sufficient details about the status quo before the implementation of intervention. As such, the quality of the evidence is weak and effect of the intervention reported appears exaggerated. Notable questions to ponder on includes: what was the situation on ground that could make the baseline assessment of danger signs improve from 2.1% to 84.2%? Were the the nurses not ignorant of the importance of assessing the danger signs? Or were they knowledgeable but always ignore such assessments? Or do they do the assessment but do know document? Provision of such information might explain the reason for the huge difference/improvement. What exactly did the intervention impact on that led to such huge improvement?

Another major flaw of this article is the methodology. Currently the method section is not detailed enough and left many questions unanswered. For instance, what is the unit of analysis in this study? Is it the number of cases or the nurses conducting the assessment? A nurse that routinely fails to assess danger signs would do this in 1000 cases; however, if she realises the
importance of such assessment or mentored would also complete such assessment in 1000 subsequent assessments. Thus, reporting 1000% improvement amounts to exaggeration. These are key issues that might have influenced the result reported in this study.

Are the mentees qualified nurses? If not why refer to them as nurses?

The discussion section is lacking. There is no adequate discussion of contextual or implementation factors that could influence effects reported.

Even though the MESH-QI programme is possibly a very important programme that might have improved quality of care in rural Rwanda and could even be adopted in other sub-Saharan Africa countries, the evidence provided in this article lacks scientific rigour. Perhaps reporting the effects of the programme on the mentees would be a better objective of this study.

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

No

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

No

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

No

**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.

I am able to assess the statistics

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