Reviewer’s report

**Title:** Evaluation of the maternal deaths surveillance and response system at the health district level in Guinea in 2017 through digital communication tools

**Version:** 0  **Date:** 01 Oct 2018

**Reviewer:** David Walugembe

**Reviewer’s report:**

This article is useful in this field and can be improved prior to its publication. Using the Introduction, Methods And Discussion (IMRAD) approach to reviewing this manuscript, I would like to provide the following feedback to the authors:

Alignment of title with study aims and purpose

The title, aims, methodology, results and conclusion need to be aligned to enhance the coherence of the content in this article. The title of the article states "Evaluation of the MDSR System at the health district level in 2017 through digital communication tools". According to the abstract, the aim of this paper reads as follows "To identify the strengths and weaknesses of the MDSR system at the health district level and propose solutions". This aim eliminates the digital communication tools component as stated in the title. Furthermore, the Page 1, line 58 of the manuscript states that the purpose of this study was "To highlight that [how] digital [communication] tools can be used to rapidly evaluate an intervention at the health district level, assess the MDSR system at the health district level in Guinea to identify strengths and weaknesses and propose solutions for improvement. In my opinion, the plausible aim of the study would be "to explore how digital communication tools can or were used to evaluate the MDSR system at the health district level in 2017" or something along those lines!

Establishing a coherent study aim would also greatly help to align the methodology, results, discussion and conclusion sections of the manuscript. In other words, it would help focus the methodology to describe how the digital communication tools were used to achieve the study objectives. It would also help to align the reporting of the results to show which digital communications tools enabled the researchers to get the findings they got, discuss these tools further and conclude accordingly.

Page 4 line 50- Pg 5 line 55 could be moved to before the methods section (End of line 13 page 4 would be an ideal place for this content). In their current position, they seem to just crop up from nowhere!

Page 5 line 30, "open interaction" instead of "opened interaction"

Methodology section
Currently there is absence of coherence between the elements covered under the methods sections. It should flow coherently from describing the study design, setting, study population, sampling, data collection methods, analysis and ethical considerations.

Study population and selection (Page 6)

This section could be rewritten to highlight more details on the sampling procedure for the 38 DMOs that were contacted via e-mail. Lines 9-11 need to be edited and moved accordingly. The reporting of the 23 DMOs that took part in the study is a result/finding while the bit on voluntary participation belongs to the ethical procedures of the study that have not been described in detail in this study. Thus, the authors need to provide additional details on how potential study participants were sampled and recruited into this study as well as the ethical procedures followed.

Conceptual framework

This section could be rewritten, and the conceptual framework revised to highlight how the digital communication tools were used to facilitate data collection under each of the WHO criteria. In other words, the conceptual framework would highlight the Theme/Criteria, Individual Components/Elements and Digital Tools Used to collect data. Regarding re-writing this section I would suggest that this section is edited as follow; "To guide the data collection and analysis, this study adapted the WHO criteria for exploring the organization and implementation of the MDSR at the health district level. These criteria......

Page 7 line 42, It is statistical analyses not "analyzes"

Results Section

The section that describes how many DMOs participated in the study as well as the response rate belong here. "Out of the 38 DMOs contacted via e-mail, 23 responded and participated in this study. This represents a response rate of 61%.

For coherence purposes, this section could be written highlighting how the digital communications tools facilitated or enabled the authors to generate the study findings reported. Aligning these to the conceptual framework would enhance the comprehension of the study findings. For instance, which tool and how did it or they enable the authors to generate findings under the identification and notification of maternal deaths; review of maternal deaths, analysis and interpretation, response and follow-up?

Page 9 line 28 "a" maternal death review committee

Page 10 line 14, it may be helpful to break the sentence into two that is; "In 2016, on average, less than half (45%) of recommendations of review committees were actually implemented at the
district level. Only 15% of the districts implemented all recommendations of the review of maternal deaths (Table 3).

Page 10 Line 26, the R in response should be r!

Page 12 line 40, "Engagement" rather than organization of the community in mutual health or (health initiatives) would read better

Page 12 line 59, "Insuffisance d'informations sur le fonctionnement du système MDSR" needs to be translated to English

Page 13 line 6, Participants (HDMTs, Actors of the intermediate and central levels) [in] instead of (to) the online discussion proposed solutions to improve MDSR in Guinea.

Page 13 lines 11-60; It would be a great idea to include some verbatim quotes from your study participants. However, this depends on whether they consented to have their responses used for this purpose during their recruitment process.

Page 13 lines 16-28 are not so clear.

Page 13 line 21, it is right not "rights"

Discussion

Overall, there is a lack of coherence in the presentation of the discussion. It also needs to be aligned with the study title, aims, methods and results. Given your comprehension of this study, this section would have explicated your opinion on whether digital communication tools can used to rapidly evaluate an intervention at the health district level based on the results presented above. It would emphasize how combination of the said digital tools enabled you to assess the organization and implementation of the MDSR, identify the strengths and weaknesses as well as generate solutions. Additionally, it would highlight examples of usage of these digital tools for similar or related purposes elsewhere. Finally, it would benefit readers to read about the shortcomings of these digital communication tools.

Transitions from one component of the study to the next would also enhance the readability of this work. For example, transiting from the digital tools to the outstanding MDSR challenges a paragraph such as the one below would be helpful;

"Despite the feasibility of digital tools in assessing/evaluating the MDSR system at a health district level, major challenges still abide. These include; inadequate human resources; undocumented maternal mortality ratio, maternal deaths etc."

Page 14 line 9, I think this could do well in the conclusion section

Page 14 line 31, recommendations would do better instead of "recommended directives"
Conclusion

This needs to be revisited to align with the study aims, and results.

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

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