Reviewer's report

Title: Audit-identified avoidable factors in maternal and perinatal deaths in low resource settings: a systematic review

Version: 2
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Reviewer: Hannah Blencowe

Reviewer's report:

This paper addresses an important topic within maternal and perinatal health, and as such would present a welcome addition to the published literature. However, I believe that this paper requires some revisions and clarifications to fulfil its full potential. Whilst the background is well laid out – both the methods and the results could be made clearer, and the discussion would benefit from further critical discussion.

Major Compulsory Revisions

1. Please could the authors provide more details in the paper as to how the quality scoring was done. I (and other readers) may not be familiar with this – I presume that it was out of nine with one point for each criteria met – but how do you assess if they are met/ are there standard guidance etc..? would it be possible to add details to the supplementary material?

2. The authors rightly assert that few studies are available on this subject (39 since 1967 – and almost half in referral hospitals and 82% in Africa). The paper would benefit from discussion as to why a systematic review of the published literature was undertaken in isolation. Did the authors consider other, unpublished sources, program reports etc… especially as most audits would not be published. How likely do the authors think it is that these audits will be representative of all maternal/ perinatal audits? In particular only 13 datasets reported fetal/ neonatal outcomes.

Minor Essential Revisions

1. It would be very helpful for the reader if relevant standard definitions were provided eg ‘maternal death’ ‘perinatal death.’ ‘avoidable death'

2. Please check the references for the last paragraph of the background section (ref 3 to 5 are given – but do not fit well here and ref 12 to 14 are missing)

3. The authors site one inclusion criteria. Please can they clarify is there were any exclusion criteria?

Discretionary Revisions

1. Please review whether ref 16 is the best reference for ‘snowball searching’ perhaps the authors could describe here what it is to inform the reader, instead of referencing another review.

2. It would be helpful if a sensitivity analysis could be undertaken to look at if
factors are different in maternal deaths compared to perinatal deaths and comment on the findings in the paper.

3. The methods include a section on statistical analysis/reporting and describes meta-analyses. It may strengthen this section if the authors state which methods were used rather than just adding references. The results are reported in table 3, please could the authors include forest plots in the supplementary material. Some discussion on the relevance of these results would further strengthen the paper.

**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