Author’s response to reviews

Title: Trends in maternal and neonatal mortality in South Africa: A systematic review

Authors:

Damian Jeremia Damian (d_jeremy5@yahoo.com)
Bernard Njau (njxber001@myuct.ac.za)
Esther Lisasi (lssest001@myuct.ac.za)
Sia Msuya (siamsuya@hotmail.com)
Andrew Boulle (adrew.boule@uct.ac.za)

Version: 3 Date: 04 Feb 2019

Author’s response to reviews:

Dear Editor

Systematic Reviews

Date: 03/02/2018

RE: RESPONSES TO REVIEWER’S REPORTS

We thank the reviewers for their critical review and valuable comments. We appreciate your commitment and time taken to review our manuscript entitled: “Trends in maternal and neonatal mortality in South Africa: A systematic review”. Please find below point-by-point responses to the reviewer’s comments. Changes to the text are indicated in red. The changes are also highlighted on the new manuscript using Track Changes.

Peer reviewer comments:

Thank you for the responses to peer review and use of track changes to indicate the changes in the paper. In reviewing the peer review comments, one discrepancy stands out in particular, and that is related to the assessment and reporting of risk of bias by study design. It was highlighted in peer review, and I note Table 1 is alluded to respond to this issue. However, table 1 does not differentiate included studies by methodology/method nor does it indicate whether risk of bias instruments were specific to the included study designs, and I believe this needs further clarification.
For example, suggesting a survey has low risk of bias does not appear to reflect the limitations generally associated with cross sectional studies. I note that table 1 does not indicate what scale or how ROB was assessed for the varied study designs, Table 2 does not report study design, while the key table for ROB - table 4 does not indicate what scale was used for the very varied included study designs. Can you please update to address this particular issue.

- We have now modified the 4th criteria for ROB assessment to incorporate the study designs and sampling procedures so that reports from government and other agencies can be explicitly assessed. Nonetheless, all selected studies were assessed using similar ROB criteria as stated below.

- Although they are subject to misclassification and under-reporting; our risk of bias assessment criteria did not classify all the included empirical studies as having high risk of bias. There are some empirical studies classified as having low risk of bias as they qualified all criteria for overall low risk of bias.

- Data from Stats SA; National Department of Health and WHO are however included based on publications. Stats SA are the custodians of vital registration and a number of data sources reported by them are included. The Dept. of Health are the custodians of the confidential enquiries which are included, and the WHO estimates are included from their publications.

- Low risk of bias in study design/sampling was assigned to publications or reports that come from a census, vital registration, survey with nationally representative sample or Systematic analysis involving the use of data from the fore-mentioned techniques. Reports or publications with unclear study design/sampling techniques, used provincial or sub-national sample were categories as having high risk of bias. The risk of bias statement read as follow: -

“Assessment of risk of bias was done at a study and outcome level. Two authors assessed study quality based on the following quality assessment criteria: 1) definition of maternal mortality; 2) definition of neonatal deaths; 3) completeness of ascertainment of maternal and neonatal mortality; 4) completeness of ascertainment of live births; 5) sampling technique/design; and 6) data quality. Studies were assessed based on each criterion and were rated as “high risk of bias” or “low risk of bias” accordingly. Studies rated as “high risk of bias” on any criterion were assigned an overall rating of “high risk of bias” while overall rating of “low risk of bias” were only assigned in studies with “low risk of bias” in all criteria. For model-based estimations, risk of bias was assessed based on the input data used. Reports by government and other agencies such as Stat SA, National Department of Health and WHO were assessed using similar criteria as empirical studies. Table 1 shows the assessment criteria of risk of bias in individual studies.”