Author's response to reviews

Title: High maternal mortality estimated by the sisterhood method: a rural area of Mali

Authors:

Ingvill Aa (ingvill.aa@gmail.com)
Mari A Grove (mari.aarsland@student.uib.no)
Anita H Haugsjå (ahaugsja@gmail.com)
Sven G. Hinderaker (Sven.Hinderaker@cih.uib.no)

Version: 3 Date: 10 June 2011

Author's response to reviews: see over
To the Editor
BMC Public Health

Re: 2063542242505378-R1 manuscript: High maternal mortality estimated by the sisterhood method: A rural area of Mali.

We hereby return the modified manuscript. All changes are highlighted in YELLOW in the modified manuscript. Copy editing has been done and a native English speaking doctor has reviewed it. The style used conforms to the journal style.

We are grateful to the reviewers for very constructive and detailed comments and advise. We attach a modified and improved version of our manuscript. Below we have outlined your reviewers’ comments and our modifications done, point by point. Also, we changed consistently 100 000 into 100,000. Reviewer 1 wanted more description of study area. We have added some information. However, the specific data we needed was requested from colleagues in Mali but had not reached us before the deadline. We hope the manuscript is OK in the present form.

Best regards,
On behalf of the authors,
Sven Gudmund Hinderaker
Reviewer 1: I.T.

Background: The time of the launching of the National referral system in Mali was wrong in the paper.

We have changed the sentence in Background.

Methods: 1. There is a need for description of study area, coverage and distance.

Info from DHS-2006 about health services accessibility in region of Kayes is given. DHS also states that rural is less accessible, but exact figures are not given. We do not have access to distance to health centres.

Methods: 2. The initials IA and MAG are not explained in methods

These were initials of two of the authors, now deleted.

Main concern 1. The finding may induce decisions of policy makers

Very good point, we have modified the abstract, discussion and conclusion. We underscore that the impact of the latest intervention CANNOT BE captured by this study. In this way it will rather show that the govt. made a commendable resolution to improve these services.

Main concern 2. Adjustment factors need review.

The adjustment factors to calculate the number of sisters exposed are figures calculated by Graham & al. and are assumed to be independent of location. Our former statement that the adjustment depended on location was incorrect. It is an ASSUMPTION in the calculation of Lifetime risk.

Main concern 3. The influence of migration on the estimate of MMR estimate.

We added a paragraph in discussion, p 7-8. Deleted statement in in methods, no good references found. Migration may lead to information bias, if so it may miss deaths more than missing births.
Reviewer 2 SD

Major compulsory revisions
Paper need considerations about Data quality
This is added in discussion, p.8, penultimate paragraph of discussion

Confidence intervals needed for all MMR.
Confidence intervals are added in the text of background, results and discussion. We give exact calculated estimates and drop rounding as advised.

Assessment of BIAS from data quality issues.
Paragraph on data quality and potential bias from ectopic/abortion is added in discussion p.8

Improve information on TFR
a. check cited values of TFR.
   TFR values and references checked and corrected.
b. TFR in Kayes should be given
   TFR in Kayes is given, and Bamako as comparison
c. TFR use in MMR calculation: which one?
   TFR from Kayes from DHS 1996 is used, TFR=6.9
d. Sensitivity analysis of various TFR should be given.
   In result we show calculations of MMR with lower and higher TFR as well.

Minor essential
About the sample
The interviews were done at public places, not in households. Methods modified p.5

About translation:
A new sentence is written in methods. Backtranslation not done. The period of 42 days was well taken and understood, often using “6 weeks”.

About “infrastructure”
Modified in most places

MMR definition
Pregnancy-related death is more correct where cause of death is unavailable, but reflects mostly maternal deaths. Comment added in Methods, and definitions of both are given.

Proportion rural in Mali?
The proportion rural population in Mali is given from DHS data in “background” (p.3).

Background para 1
For reported MMR we keep Hogan’s systematic analysis with uncertainty range
Methods, para 3
Reference of cultural norms:
    Good reference not identified, sentences deleted
Sample size. a. and b.
    Sample size calculations may not be needed in this paper, only used for protocol preparations, confidence intervals suffice here, I think.

Methods para 5
Tried avoid siblings. How successful?
    Graham advised sisters not to be respondents in Graham, but the she also comments that the method is robust to this challenge. Hence we decided to delete the sentence as it confuses rather than clarifies.

Table 1
Delete row 60+
    Done
Headings errors
    Done

Table 2
Footnote 4 "strong traditions"
    The sentence is deleted. Added distance to health centre instead.

3. Discretionary revisions
Abstract: specify MMR
    Done

4. Minor issues not for publication
    All comments modified. Thanks for sharp eyes!