

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	What is the quality of the maternal near-miss case reviews in the WHO European Region? Cross-sectional study in Armenia, Georgia, Latvia, Republic of Moldova and Uzbekistan
<b>AUTHORS</b>	Bacci, Alberta; Hodorozea, Stelian; Khachatryan, Henrik; Babojonova, Shohida; Irsa, Signe; Jansone, Maira; Dondiuc, Iurie; Matarazde, George; Lazdane, Gunta; Lazzerini, Marzia

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Hemantha Senanayake Faculty of Medicine, University of Colombo, 25, Kynsey Road, Colombo 08 Sri Lanka I am a partner in a research project in which Ms. Lazzerini is also involved. However I do not believe that this connection in any way affected my recommendation regarding this paper. I have no other interests to declare.
<b>REVIEW RETURNED</b>	25-May-2017

<b>GENERAL COMMENTS</b>	The manuscript addresses a difficult area to study - i.e. quality of review of near misses. The authors have painstakingly found a way to do that. This study has produced data that has relevance to almost all low-middle income countries.
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<b>REVIEWER</b>	Marian Knight University of Oxford, UK
<b>REVIEW RETURNED</b>	06-Jun-2017

<b>GENERAL COMMENTS</b>	The authors are to be congratulated on this extensive multi-country evaluation, which is to be complemented and serves as an excellent model for similar reviews of facility NMCR processes. I only have a few minor comments.  Minor points 1. Throughout the paper, the term 'maternities' is used incorrectly and should be corrected to 'maternity units'. 2. Methods p6 – was the sampling of units a stratified random sample or purposive? It is unclear as written. It appears from the discussion that it was a convenience sample – this should be clarified.
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	<p>3. Methods p7 – why was the mean chosen to summarise scores across the domains? Were the data normally distributed?</p> <p>4. Country B is easily identifiable based on the data on implementation dates that has been provided. Do the authors wish to revise the paper to remove the information that Georgia implemented the processes only recently?</p> <p>5. Tables 3 and 4 are labelled the wrong way round according to the text in the results section.</p> <p>6. The ‘article summary’ section does not include any limitations – perhaps the clearest being that in two countries the facilities reviewed appear to have been selected by the Ministry of Health. Can this be added?</p> <p>7. The authors in two places make the assumption that the NMCR processes in other countries (UK, Norway, the Netherlands) are undertaken on the basis of ‘major investment’ when this is not in fact the case (in the UK, at least). It would perhaps be of more benefit to the readership to emphasise that high quality NMCR processes can be implemented without major investment, as their evaluation has clearly shown. Financial resources do not necessarily need to be a limiting factor with ‘champions’ as the authors highlight.</p> <p>8. The discussion is quite long and could perhaps be truncated. I would welcome two or three key messages about how to improve NMCR processes in general, which I found difficult to extract from the discussion as written.</p>
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<b>REVIEWER</b>	Dr Evelyn Jane MacDonald Women’s Health Research Centre University of Otago Wellington Medical School New Zealand
<b>REVIEW RETURNED</b>	27-Jul-2017

<b>GENERAL COMMENTS</b>	<p>Thank you for the opportunity to review this paper. It is important in the field of review of maternal morbidity review and has important messages for other jurisdictions undertaking these processes. My comments are mostly on the grammar and meaning of the text with some queries around references. I think the English translation needs some review and I have pointed out just some examples. My experience of maternal morbidity review is solely from a high resource country so I hope my comments contain relevance to the authors. I commend the authors for the effort and dedication to this severe maternal morbidity review process.</p> <p>Point 5. under Ethical considerations clarification of research ethics - there is no statement (usually required in peer reviewed paper) as to whether ethics board approval was applied for or obtained e.g.in the opening sentence could be amended to read ".....authorities , therefore ethics approval was not required." or something similar if this was the case I note oral consent from participants was obtained</p>
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	<p>8.References  references 19 and 42 states 'submitted for publication' ( not usually acceptable in peer review journal - might be personal communication ???</p> <p>ref 39 - I am unclear that this paper is a systematic review of how NMCR is an effective strategy in improving health care and may significantly reduce maternal mortality - as stated  Its objective was To follow-up on the process of implementing clinical audits of obstetric cases in Morocco as recommended by the Ministry of Health (2001) and to explore both the barriers to and factors facilitating sustainability of clinical audits.  there is no ref 43</p> <p>Point 15. English  Abstract and in other places in text  “maternities” – usually means pregnancies – change to maternity units or maternity hospitals</p> <p>Page 4 – line 43 could be explicit in including obstetricians in list of staff involved</p> <p>Page 5- line 32 – suggest “ but , so far they have not been evaluated using systematic methodology”</p> <p>Page 8 ( and other places) – line 11 “constrains” – I think “constraints” is what is meant here</p> <p>Page 10  lines 6-9  "in some facilities ... singles domains problematic" this sentence does not make sense - suggest " but remained problematic at a country level"  line 43- "attitude" relates to staff presumably - could be more explicit  line 54 " .... gaps in reporting did not always indicate "</p> <p>Page 14  line 44 query - do the authors mean satisfying or satisfactory?  Page 15 line 51 .....facilitate uniform.... ( delete 'and')  there are quite a few other grammatical words either used or missed out which could be improved on to enhance the readers understanding of the text .</p>
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### VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Hemantha Senanayake

Institution and Country: Faculty of Medicine, University of Colombo, 25, Kynsey Road, Colombo 08, Sri Lanka

Please state any competing interests: I am a partner in a research project in which Ms. Lazzarini is also involved. However I do not believe that this connection in any way affected my recommendation regarding this paper.

I have no other interests to declare.

Please leave your comments for the authors below

The manuscript addresses a difficult area to study - i.e. quality of review of near misses. The authors have painstakingly found a way to do that. This study has produced data that has relevance to almost all low-middle income countries.

\*\*\* Thanks for the appreciation

Reviewer: 2

Reviewer Name: Marian Knight

Institution and Country: University of Oxford, UK

Please state any competing interests: None declared

Please leave your comments for the authors below

The authors are to be congratulated on this extensive multi-country evaluation, which is to be complemented and serves as an excellent model for similar reviews of facility NMCR processes. I only have a few minor comments.

Minor points

1. Throughout the paper, the term 'maternities' is used incorrectly and should be corrected to 'maternity units'.

\*\*\* This has been revised as requested

2. Methods p6 – was the sampling of units a stratified random sample or purposive? It is unclear as written. It appears from the discussion that it was a convenience sample – this should be clarified.

\*\*\*We have clarified this as requested and made this explicit also in the "strength and limitation" section after the abstract

3. Methods p7 – why was the mean chosen to summarise scores across the domains? Were the data normally distributed?

\*\*\*We have added means, IQ and ranges will add this later

4. Country B is easily identifiable based on the data on implementation dates that has been provided. Do the authors wish to revise the paper to remove the information that Georgia implemented the processes only recently?

\*\*\* Thanks for this input. We have revised this sentence as suggested.

5. Tables 3 and 4 are labelled the wrong way round according to the text in the results section.

\*\*\* Thanks for this input. We have corrected the labels

6. The 'article summary' section does not include any limitations – perhaps the clearest being that in two countries the facilities reviewed appear to have been selected by the Ministry of Health. Can this be added?

\*\*\* Thanks for this input. We have made explicit this limitation

7. The authors in two places make the assumption that the NMCR processes in other countries (UK, Norway, the Netherlands) are undertaken on the basis of 'major investment' when this is not in fact the case (in the UK, at least). It would perhaps be of more benefit to the readership to emphasise that high quality NMCR processes can be implemented without major investment, as their evaluation has clearly shown. Financial resources do not necessarily need to be a limiting factor with 'champions' as the authors highlight.

\*\*\* Again, thanks for this input. We have revised the discussion as suggested

8. The discussion is quite long and could perhaps be truncated. I would welcome two or three key messages about how to improve NMCR processes in general, which I found difficult to extract from the discussion as written.

\*\*\* Thanks for the suggestion. We have tried to focus on the main suggestions on NMCR but we would rather avoid generalizing as conclusions in some cases are based on the opinion and experience of the authors rather than the study findings

Reviewer: 3

Reviewer Name: Dr Evelyn Jane MacDonald

Institution and Country: Women's Health Research Centre, University of Otago, Wellington Medical School, New Zealand

Please state any competing interests: none declared

Please leave your comments for the authors below

Thank you for the opportunity to review this paper. It is important in the field of review of maternal morbidity review and has important messages for other jurisdictions undertaking these processes. My comments are mostly on the grammar and meaning of the text with some queries around references. I think the English translation needs some review and I have pointed out just some examples.

My experience of maternal morbidity review is solely from a high resource country so I hope my comments contain relevance to the authors. I commend the authors for the effort and dedication to this severe maternal morbidity review process.

Point 5. under Ethical considerations

clarification of research ethics - there is no statement (usually required in peer reviewed paper) as to whether ethics board approval was applied for or obtained e.g. in the opening sentence could be amended to read ".....authorities , therefore ethics approval was not required." or something similar if this was the case

I note oral consent from participants was obtained

\*\*\* Thanks for this input. We have added a statement

8. References

references 19 and 42 states 'submitted for publication' ( not usually acceptable in peer review journal - might be personal communication ???

\*\*\* We have revised this as suggested

ref 39 - I am unclear that this paper is a systematic review of how NMCR is an effective strategy in improving health care and may significantly reduce maternal mortality - as stated . Its objective was To follow-up on the process of implementing clinical audits of obstetric cases in Morocco as recommended by the Ministry of Health (2001) and to explore both the barriers to and factors facilitating sustainability of clinical audits.

\*\*\* Apologies, reference number in the text was incorrect. We have corrected it.

there is no ref 43

\*\*\* Thanks for this input. This has been corrected

Point 15. English

Abstract and in other places in text

“maternities” – usually means pregnancies – change to maternity units or maternity hospitals  
\*\*\* Thanks for this input. We have corrected this

Page 4 – line 43 could be explicit in including obstetricians in list of staff involved  
\*\*\* We have added this.

Page 5- line 32 – suggest “ but , so far they have not been evaluated using systematic methodology”  
\*\*\* We have revised this.

Page 8 ( and other places) – line 11 “constrains” – I think “constraints” is what is meant here  
\*\*\* Correct, we have revised this.

Page 10 lines 6-9  
"in some facilities ... singles domains problematic" this sentence does not make sense - suggest " but remained problematic at a country level"  
\*\*\* Correct, we have revised this.

line 43- "attitude" relates to staff presumably - could be more explicit  
\*\*\* We have revised this.

line 54 " .... gaps in reporting did not always indicate "  
\*\*\* Revised

Page 14  
line 44 query - do the authors mean satisfying or satisfactory?  
\*\*\* Satisfactory, we have revised this.

Page 15 line 51 .....facilitate uniform.... ( delete 'and')  
there are quite a few other grammatical words either used or missed out which could be improved on to enhance the readers understanding of the text .  
\*\*\* we have revised this.

## VERSION 2 – REVIEW

<b>REVIEWER</b>	Marian Knight University of Oxford, UK
<b>REVIEW RETURNED</b>	21-Nov-2017

<b>GENERAL COMMENTS</b>	The authors have addressed all my previous comments, with the exception of point 3. They state in their response that they now present medians and IQRs across the domains, but this does not appear to have been done in the manuscript (the response is annotated 'will add this later', presumably indicating that the authors had intended to add this but may have forgotten?) This is the only remaining minor correction.
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<b>REVIEWER</b>	Evelyn Jane MacDonald senior Research Fellow Department of Obstetrics and Gynaecology
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	University of Otago Wellington Medical School New Zealand
<b>REVIEW RETURNED</b>	03-Dec-2017

<b>GENERAL COMMENTS</b>	The reviewer provided a marked copy with additional comments. Please contact the publisher for full details.
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### VERSION 2 – AUTHOR RESPONSE

Reviewer: 2

Reviewer Name: Marian Knight

Institution and Country: University of Oxford, UK

Please state any competing interests: None declared

The authors have addressed all my previous comments, with the exception of point 3. They state in their response that they now present medians and IQRs across the domains, but this does not appear to have been done in the manuscript (the response is annotated 'will add this later', presumably indicating that the authors had intended to add this but may have forgotten?) This is the only remaining minor correction.

\*\*\* Apologies, we have now added all medians and IQR ranges in Table 2

Reviewer: 3

Reviewer Name: Evelyn Jane MacDonald

Institution and Country: senior Research Fellow, Department of Obstetrics and Gynaecology, University of Otago, Wellington Medical School, New Zealand

Please state any competing interests: none declared

congratulations - this is important work

i have made one or two grammatical suggestions to improve the reading of the paper but the meaning is clear without these in tracked changes

\*\*\* Many thanks for your appreciation.

Thanks for the corrections, I have added them in the revised version

### VERSION 3 – REVIEW

<b>REVIEWER</b>	Marian Knight University of Oxford, UK
<b>REVIEW RETURNED</b>	13-Dec-2017

<b>GENERAL COMMENTS</b>	I am happy that the authors have addressed my comments.
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