Author's response to reviews

Title: Readiness of district and regional hospitals in Burkina Faso to provide comprehensive emergency obstetric and newborn care: a cross-sectional study.

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Author's response to reviews: see over
Response to Reviewers

Dear reviewers and editor,

It is with a great pleasure that we submit a revised version of our article entitled “Readiness of district and regional hospitals in Burkina Faso to provide comprehensive emergency obstetric and newborn care: a cross-sectional study.”

We would like to thank editor and reviewers for their comments and input to improve the article. We hope that we have sufficiently addressed each of your concerns. As requested by the editor a colleague who is native English speaker has revised the manuscript to correct the language.

Please find below a point by point response to the concerns.

Many thanks and we look forward to hearing from you.

Sincerely,

Dr Georges Compaoré, for the authors
Reviewer 1: Albert Manasyan  
Reviewer's report:  
The manuscript provides important information for EmONC practices in the country; however, I would like to suggest the following changes/additions. All my comments are categorized under "Minor Essential Revisions":  
1. The authors did not explain why only these 2 indicators were chosen? If there exists a baseline of all EmONC indicators, then I suggest they be included in the manuscript.  

We offered some explanation for this choice when we wrote that “We used the availability and frequency of caesarean section and blood transfusion to judge the readiness of hospitals to provide CEmONC, since these are the key functions distinguishing CEmONC from BEmONC.” So we chose to focus on those EmONC functions that one would expect to find only in district hospitals and above, not in health centres. We did not collect data on other EmONC functions. To increase clarity we now write:  

We used the availability and frequency of caesarean sections and the availability of blood transfusion services to judge the readiness of hospitals to provide CEmONC, since these are the two key functions distinguishing CEmONC from BEmONC, i.e. the two EmONC functions expected to be provided by district hospitals and above only, not by health centres.  

2. This manuscript would be much stronger if they quantify the problem - maternal mortality - before the intervention, during this study, and 4 years later, which period, with its gaps, are mentioned in the manuscript.  

Our study is a descriptive and a cross-sectional study – we do not assess the impact of an intervention on maternal mortality. However, in the discussion section we now compare our findings with the results of a survey undertaken by others four years later – see our response to the other reviewer below.  

3. The minimum number of required staff (in facilities and during surgeries) is very interesting and important, but needs a citation or explanation on where that figure was derived from.  

The figure was derived from theoretically considerations,  
We have added the following details regarding this comment in the Methods section of the article:  

For the purpose of this study we defined as the absolute minimum number of required staff in CEmONC facilities to be as three midwives (one each for morning, afternoon and night duty) to guarantee the presence of a skilled birth attendant twenty four hours a day, seven days a week in the maternities, and as two surgical assistants and two anaesthesiologist assistants for providing 24/7 assistance to physicians with surgical skills.  

We have added the following comment in the Discussion section of the article:
The scarcity of qualified staff should be considered as even more pronounced than suggested by our figures: in reality more than two physicians with surgical skills, two surgical assistants, two anaesthesiologist assistants and three midwives are necessary to ensure continuous availability of CEmONC, since the need for rest after night duty and for replacing staff on annual or sick leave need to be taken into account.

4. C-section rate is very high. Can the authors explain why?

We agree with the reviewer that the C-section rate is very high but this is related to the fact that our survey is hospital-based, not population-based - many eutocic deliveries took place outside of hospitals.

5. What is the main cause of maternal mortality in the country? If it is due to PPH, then the chosen EmONC indicator can be justified and the manuscript will aid in policy development.

We confirm that in Burkina Faso post-partum hemorrhage is a major cause of death. We take this comment into consideration in the Background section of the article and write:

In Burkina Faso like in other sub-Saharan countries haemorrhage is the major cause of maternal deaths, with a prominent role of post-partum haemorrhage.

Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published
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.

Reviewer 2: Sherri Bucher
Reviewer's report:
No Major Compulsory, minor essential or discretionary revisions.
General comments:
This is a well-designed study and well-written article. The research question is clearly defined as an attempt to assess the readiness of hospitals in Burkina Faso to provide comprehensive emergency obstetric and newborn care services…

Thank you sincerely. We are grateful for the positive general comments made.

Reviewer 3: Ana Garces
Reviewer's report:
Major Compulsory Revisions
Because this manuscript reports on selected elements of CEMONC, the title should be adjusted to report on this.

Agreed. The title has been changed to:

*Readiness of district and regional hospitals in Burkina Faso to provide caesarean section and blood transfusion services: a cross-sectional study*

- This article reports on data from 2007. It reports a similar study was repeated in 2011. In order for this to be most valuable, it should have a comparison of both rather than report only on the oldest data.

Agreed. We have clarified in the Introduction:

In this article we report on the readiness of district and regional hospitals of Burkina Faso to provide two key functions of CEmONC in 2007. Since then, Burkina Faso has conducted a national EmONC needs assessment in 2011, so that we could, within limitations, assess changes over time for some indicators.

We have compared our results with those of the national assessment of CEmNOC in Burkina Faso in the Discussion section. The relevant sentences read:

- ‘A comparison of our results from 2007 with those of the national CEmONC assessment in 2011 shows an increase of the proportions of district hospitals with at least one gynaecologist, surgeon, GP-BES and surgical assistant, but not with at least one anaesthesiologist assistant (figure 2).’

- A comparison of our results from 2007 with those of the national CEmONC assessment from 2011 suggests that some progress may have been made in the continuous provision of caesarean sections (53.5% in 2007 vs. 88.4% in 2011) and of blood transfusion services (20.9% vs. 76.7%) in district hospitals. A direct comparison of these results, however, is problematic, since the two studies used different definitions of continuous availability: in 2011 continuous availability of relevant staff alone was sufficient to declare that caesarean sections were available continuously, while in 2007 shortage of supplies, electricity, water etc. as well as shortage of staff could have led to caesarean sections to be declared as not continuously available. For blood transfusion, similar limitations for the comparison of results from 2007 versus 2011 apply. Progress may have been more modest than suggested by the figures, but Burkina’s health system has probably moved in the right direction.

What is the relevance of this data and availability of services to health indicators in the region? If the data is from 2007, It would be interesting to compare and evaluate over time.

We are not quite sure we understand how this comment differs from the previous one. We believe to have addressed these issues when responding to the comment above.