Reviewer’s report

Title: Incidence of catastrophic expenditures linked to obstetric and neonatal care at 92 facilities in Lubumbashi, Democratic Republic of the Congo, 2015

Version: 1 Date: 13 Feb 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?
Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?
No - there are minor issues

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?
No - there are minor issues

Statistics - Is the use of statistics in the manuscript appropriate?
Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?
No - there are minor issues

OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?
Maybe - with major revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: This study is a serious effort to discover the factors contributing to the catastrophic expenditure (CE) in obstetric and neonatal care in Lubumbashi, Democratic Republic of the Congo (DRO). The authors used the mixed methods to provide complementary evidence to demonstrate the severity of the problem in Lubumbashi. However, due to the cross-sectional nature of the study, the causation is unable to draw and some factors, such as the transportation methods, are unlikely to cause the CE. Instead, they are just the intermediate
outcome of more fundamental factors, such as poverty. Moreover, the writing needs to significantly reorganized so the qualitative and quantitative studies can be presented effectively.

REQUESTED REVISIONS:
This paper actually covers two studies, one qualitative study and one quantitative study. The authors need to clarify the relationship between these two studies. It seems that the qualitative study addresses the consequences of the CE, which was unable to discover from the data. For both studies, there was no selection criteria of these samples (58 in the qualitative study and 1,627 in the quantitative study). Therefore, it is unclear how representative these samples were. Moreover, the transportation method and whether knowing the fee to pay are unlikely to cause the CE. They are more related to fundamental factors, such as income or education. Therefore, they need to be excluded from the studies. The factors in Table 3, 4, and 5 could be combined into one table.

It will be better if the results in the qualitative study can be structured into a few themes.
A few minor comments:

1. It seems that Lubumbashi is both a city name and health zone's name. Please clarify these two terms when using.
2. Provide some brief explanation, such as clan solidarity and trading funds, for readers without appropriate cultural background.
3. Table 1 is in the main text but other tables were listed at the bottom of the manuscript.
4. Numerous typos and grammar mistakes were spotted. A professional proof-reading could help.

Note: This reviewer report can be downloaded - see attached pdf file.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

This reviewer has been recruited by a partner organization, Research Square. Reviewers with declared or apparent competing interests are not utilized for these reviews. This reviewer has agreed to publication of their comments online under a Creative Commons Attribution License attributed to Research Square and was paid a small honorarium for completing the review within a specified timeframe. Honoraria for reviews such as this are paid regardless of the reviewer recommendation.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.
I agree to the open peer review policy of the journal