Author’s response to reviews

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

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Version: 2 Date: 19 Apr 2019

Author’s response to reviews:

Dear editors;

I am pleased to have received your feedback on my manuscript submitted to BMC Public Health.

Please find below my covert letter in response to comments from reviewers.

Best regards

Brendan Kwesiga (Reviewer 1):

Abstract

Line 48-Replace financing alternatives with coping mechanisms

This correction has been made (See the abstract)

Line 49- Restructure the sentence. Some of the consequences such as disrespectful care are not clear
We introduced this precision (See Lines 45-50)

Line 55; are there any recommendations specific to the delivery and financing obstetric care that you think could reduce catastrophic health expenditures? This could be based on the main cost drivers of obstetric care and/or from the factors associated with a higher likelihood of catastrophic expenditure. I find the recommendation about risk pooling too generic

We completed the recommendations of the determinants of CE in the conclusion (see Lines 55-57; 563-579)

Introduction

Line 78- 30% of all health care expenditure NOT health system costs

This correction has been made (see Line 78)

Line 79- US$86 was recommended (and not fixed) for the delivery for an essential package of services

This correction has been made (see Line 79)

Line 81- The sentence that starts with "Given that almost the entire budget...." This is very speculative and I suggest you back it up with data. What proportion of health expenditure is used for administration?

We have given the precision in the text: « Given that one third of this budget (63.9%) is taken up by the administration of the health sector…” (See Lines 82-83)

Line 95- Is it a coincidence that both the reported incidence of CE and allocation to the budget in Abstract Line 28 is 10.8%

Exactly, it's just a coincidence. There is no mistake.

Methodology

Line 213-What was the basis of the choice tests for comparison of the expenditures by type of delivery

We have included the change in the text showing the meaning of the comparison made: “We used Mann-Whitney and Kruskal-Wallis tests to compare expenditures for each type of delivery between women who suffered CE and those who did not to test the hypothesis of differences in expenditures between these two groups. (See Lines 212-214)

Line 221-Provide more detail on specification of the model used to compute the adjusted odds ratio that shows the determinants of catastrophic health expenditures. What are the expected relationships between dependent and independent variables?
We have detailed in the text the relationship between the data used in the multivariate analysis and the expected relationship between the dependent variable and the independent variables. (See Lines 217-223; 228,229)

Results

Summarize the profile of women in Tabular form. In its current form, so many numbers (a lot of information) has been presented and it is difficult to decipher what is important/useful and what is not

This change has been made (see Table 1)

Discussion

Most of the studies you compare with did not include expenditure on transport in computation of out-of-pocket expenditure used in estimating CE. You should state that

We have introduced a few sentences in our discussion showing this nuance and its implication on the comparison of the incidence of CE between the city of Lubumbashi and other cities in Africa. (Lines 455-460)

Line 491- Replace the title with "Coping mechanisms for coping with direct out-of-pocket payments"

This change has been made (see Line 498)

While you document what evidence from elsewhere with regards to potential options for addressing catastrophic expenditures, I do not see any attempt at summarizing the policy implications of this study. You should include a paragraph on implications which are specific to your study.

We added this implication of our study on potential options to prevent CE (See Lines 545-551)

Conclusion

Summarize your conclusion into one paragraph stating:

1. What you set out to find?
2. What you found?—without mentioning the results again as you have currently done
3. And the way forward—so what do we do given these findings

We’ve made this change as it has been suggested by the reviewer (see Lines 562-578)

Reviewer 2 (Reviewer 2): PEER REVIEWER ASSESSMENTS:
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.

We’ve made changes to our manuscript based on these remarks. In addition, the manuscript has been entirely reviewed by a professional in written English.

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. We introduced this nuance into the text (See Lines 142-146).

For both studies, there were 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.

We have included, in the text, the details concerning the inclusion of women in the two approaches of our study (See Lines 125-126; 179-182).

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.

OK, we removed these two variables in the results (See Table 3).

The factors in Table 3, 4, and 5 could be combined into one table.

OK, we combined these 3 tables as recommended by the reviewer (See Table 3).

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

As suggested by the reviewer, we gave the themes to each result of the qualitative study (Lines 377, 396, 407, 417,433)

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.

We have integrated this distinction into the text

2. Provide some brief explanation, such as clan solidarity and trading funds, for readers without appropriate cultural background.

We have provided this clarification in the text: “Mobilization of clan in the form of contributions from close and extended family members to pay for pregnancy – and delivery” (Lines 505-507)

3. Table 1 is in the main text but other tables were listed at the bottom of the manuscript.

We have placed these tables in or at the end of the text based on BMC Public Health's recommendations for manuscript and table preparation. https://bmcpublichealth.biomedcentral.com/submission-guidelines/preparing-your-manuscript

4. Numerous typos and grammar mistakes were spotted. A professional proof-reading could help.

We have corrected our text according to the amendments made by an expert in professional proof-reading

Where a mandatory section is not relevant to your study design or article type, for example, if your manuscript does not contain any individual persons data, please write "Not applicable" in these sections.

For the 'Availability of data and materials' section, please provide information about where the data supporting your findings can be found. We encourage authors to deposit their datasets in publicly available repositories (where available and appropriate), or to be presented within the manuscript and/or additional supporting files. Please note that identifying/confidential patient data should not be shared. Authors who do not wish to share their data must state that data will not be shared, and provide reasons for this in the manuscript text. For further guidance on how to format this section, please refer to BioMed Central's editorial policies page - http://www.biomedcentral.com/submissions/editorial-policies#availability+of+data+and+materials.

All data generated or analyzed during this study are included in this published article and its supplementary information files.