FYI

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From: **PLOS ONE** <[em@editorialmanager.com](mailto:em@editorialmanager.com)>  
Date: Thu, Sep 3, 2020 at 8:58 PM  
Subject: PLOS ONE Decision: Revision required [PONE-D-20-23422] - [EMID:3e3b9ddd5a602dc8]  
To: Md Jamal Uddin <[jamal-sta@sust.edu](mailto:jamal-sta@sust.edu)>

PONE-D-20-23422  
Cesarean delivery and early childhood diseases in Bangladesh: An analysis of Demographic and Health Survey (DHS) and Multiple Indicator Cluster Survey (MICS)  
PLOS ONE  
  
Dear Dr. Jamal,  
  
Thank you for submitting your manuscript to PLOS ONE. After careful consideration, we feel that it has merit but does not fully meet PLOS ONE’s publication criteria as it currently stands. Therefore, we invite you to submit a revised version of the manuscript that addresses the points raised during the review process.  
  
Please submit your revised manuscript by 28 September 2020. If you will need more time than this to complete your revisions, please reply to this message or contact the journal office at [plosone@plos.org](mailto:plosone@plos.org). When you're ready to submit your revision, log on to <https://www.editorialmanager.com/pone/> and select the 'Submissions Needing Revision' folder to locate your manuscript file.  
  
Please include the following items when submitting your revised manuscript:

* A rebuttal letter that responds to each point raised by the academic editor and reviewer(s). You should upload this letter as a separate file labeled 'Response to Reviewers'.
* A marked-up copy of your manuscript that highlights changes made to the original version. You should upload this as a separate file labeled 'Revised Manuscript with Track Changes'.
* An unmarked version of your revised paper without tracked changes. You should upload this as a separate file labeled 'Manuscript'.

If you would like to make changes to your financial disclosure, please include your updated statement in your cover letter. Guidelines for resubmitting your figure files are available below the reviewer comments at the end of this letter.  
  
If applicable, we recommend that you deposit your laboratory protocols in [protocols.io](http://protocols.io/) to enhance the reproducibility of your results. Protocols.io assigns your protocol its own identifier (DOI) so that it can be cited independently in the future. For instructions see: <http://journals.plos.org/plosone/s/submission-guidelines#loc-laboratory-protocols>  
  
We look forward to receiving your revised manuscript.  
  
Kind regards,  
  
Russell Kabir, PhD  
Academic Editor  
PLOS ONE  
  
Journal Requirements:

When submitting your revision, we need you to address these additional requirements.

1. Please ensure that your manuscript meets PLOS ONE's style requirements, including those for file naming. The PLOS ONE style templates can be found at

<https://journals.plos.org/plosone/s/file?id=wjVg/PLOSOne_formatting_sample_main_body.pdf> and

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2. Please ensure you have thoroughly discussed any potential limitations of this study within the Discussion section, including bias introduced during data collection.

3. Please include your tables as part of your main manuscript and remove the individual files. Please note that supplementary tables (should remain/ be uploaded) as separate "supporting information" files

[Note: HTML markup is below. Please do not edit.]  
  
Reviewers' comments:  
  
Reviewer's Responses to Questions

**Comments to the Author**  
  
1. Is the manuscript technically sound, and do the data support the conclusions?  
  
The manuscript must describe a technically sound piece of scientific research with data that supports the conclusions. Experiments must have been conducted rigorously, with appropriate controls, replication, and sample sizes. The conclusions must be drawn appropriately based on the data presented.

Reviewer #1: No

Reviewer #2: Yes

Reviewer #3: No

2. Has the statistical analysis been performed appropriately and rigorously?

Reviewer #1: No

Reviewer #2: Yes

Reviewer #3: No

3. Have the authors made all data underlying the findings in their manuscript fully available?  
  
The [PLOS Data policy](http://www.plosone.org/static/policies.action#sharing) requires authors to make all data underlying the findings described in their manuscript fully available without restriction, with rare exception (please refer to the Data Availability Statement in the manuscript PDF file). The data should be provided as part of the manuscript or its supporting information, or deposited to a public repository. For example, in addition to summary statistics, the data points behind means, medians and variance measures should be available. If there are restrictions on publicly sharing data—e.g. participant privacy or use of data from a third party—those must be specified.

Reviewer #1: Yes

Reviewer #2: Yes

Reviewer #3: Yes

4. Is the manuscript presented in an intelligible fashion and written in standard English?  
  
PLOS ONE does not copyedit accepted manuscripts, so the language in submitted articles must be clear, correct, and unambiguous. Any typographical or grammatical errors should be corrected at revision, so please note any specific errors here.

Reviewer #1: No

Reviewer #2: Yes

Reviewer #3: No

5. Review Comments to the Author  
  
Please use the space provided to explain your answers to the questions above. You may also include additional comments for the author, including concerns about dual publication, research ethics, or publication ethics. (Please upload your review as an attachment if it exceeds 20,000 characters)

Reviewer #1: This statistical method used in the study are not appropriate to the question being asked. Most models were statistically insignificant, but the authors made claims they were supporting their hypothesis despite this. The article was not well written, leading to confusion by the reader on what the main arguments and outcomes actually are.

Reviewer #2: This paper is very interesting. The data is good and well organized.  
The information is clear, includes ethical aspects in the redaction.  
It would be important to do comments about the main limitations of the study.

Reviewer #3: The study titled “Cesarean delivery and early childhood diseases in Bangladesh: An analysis of Demographic and Health Survey (DHS) and Multiple Indicator Cluster Survey (MICS)” aims to examine the association between C-section and childhood diseases. This is a very timely article with distinct merit of linking c-section and childhood diseases in Bangladesh. However, I have some observations as follows:  
1. The authors wanted to examine the association between C-section and childhood diseases. The temporal sequence suggests that childhood diseases should be the outcome variable and the authors also pointed that out. But in the analysis the descriptive and bivariate analysis was conducted and presented in relation to characteristics affecting C-section and normal delivery. I would suggest the author to present the occurrence of childhood diseases in relation to different maternal and child characteristics in Table 1.  
2. In discussion (line 243-245), the authors mentioned “We found that the risk of childhood diseases for children born in C-section was substantially higher than children in normal delivery. This finding over the databases is consistent.” However, in the findings, the crude RR and adjusted RR are not significant for c-section for childhood diseases across the years.  
  
3. Moreover, the authors did not justify the inclusion of three survey data from two different surveys in the study. If capturing time trend is the objective, please also justify why the study did not include BDHS 2011 data? Since MICS was conducted in 2012, any similar results would have been a stronger proof of the time trend.  
  
4. Another important methodological issue is not clear in lines 110-123, where the authors mentioned about inclusion and exclusion criteria for the study. Did the authors include mothers who gave birth in two years preceding the survey for MICS 2012, and it 3 years for the other two surveys? If that is the case, why is this discrepancy?  
  
5. Finally, the article needs to be thoroughly edited for grammatical errors.  
  
My other comments are as follows:  
  
Abstract:  
1. Line 30: Please rewrite this line “In Bangladesh, not enough research is done to examine health consequences of C-sections.” To include childhood diseases.  
2. Line 36: Not clear, Did the authors create a binary variable or count variable, or separate outcomes for each condition?  
3. Line 38: It should be "geographic". Again, what did the authors mean by geographic location (is it rural-urban residence) or division?  
4. Line 38: Only "religion" would suffice.  
5. Line 40: What are other count data models used?  
6. Line 41: “Caesarean deliveries”- please stick to one term "C-section" for consistency.  
7. Line 42-44: “The crude RR for the C-section as compared with normal delivery was…. “ not clear, is it the association between childhood diseases and C-section?  
8. Line 45-46: Why don't the author say all the RRs in one sentence? As I get that you are using three different data sets from two different surveys, the authors are focusing on the trends over 2012-2019 period. However, the temporal sequence would have been useful.  
  
Introduction:  
8. Line 57-58: “This choice may increase unnecessary C-section and harm the mother and child health”, please be clear about this choice, rewrite like "unnecessary elective c-sections may increase...."  
9. Line 60: how many decades?  
10. Line 62-64: “This choice is influenced by several factors, including..”, this sentence is garbled. Please rewrite this sentence with categorizing individual preference factors and medical factors.  
11. Line 59-66: This paragraph should be rewritten. Since the author is making the point that unnecessary CS is on the rise, so focus should have been the factors driving the unnecessary cs. The medical factors often lead to medically indicated cs, therefore, should have been discussed in separate premise.  
12. Line 68: it should be "rate" instead of "rates."  
13. Line 69: Can the author give more recent data?  
14. Line 72: Use the full term "C-section".   
15. Lines 79-85: The focus of current study is the association between c-section and childhood diseases. The readers would like to read lit review on that association.  
16. Line 86-87: “In Bangladesh, young children in general, are suffering from several common diseases such as fever, the difficulty of breathing, blood in stools, and diarrhea [22].” And how these diseases are linked to c-section?  
17. Line 90: The authors examined association using cross-sectional studies, therefore, I would be cautious to use terms, like consequences, which imply "causation".  
18. Line 92: Only "C-section" would suffice.  
19. Line 93: "Other" key factors.  
  
Materials and Methods:  
20. Line 99: What does this parallel survey mean? Is there any connection between these two surveys?  
21. Line 102: What does this "multi-dimensional" mean? Are the authors trying to say these surveys have different modules? Please be judicious in using terms which are not quite commonly used.  
22. Line 124: “we used several variables are fever….”rewrite, "whether the child suffered from.....”  
23. Line 126: “The first outcome is...” verb is missing.  
24. Line 128: What is the basis of creating this variable, I think no disease=0 and <1=1 would have been a better option. Please give reference for such arbitrary classification.  
25. Line 138: I would prefer division/region instead of geographic location.  
26. Line 142: It should be “adjusting for...”  
27. Line 145: The outcome is childhood diseases, right? So, why shouldn't you conduct the bivariate analysis for differences in other characteristics and childhood diseases?  
28. Line 149: Did the author check the overdispersion for the samples? Please provide the relevant statistics.  
29. Line 155: It should be "sensitivity analysis.."  
30. Line 156: Not very clear about the use of propensity score matching here, if the authors are matching what is the requirement for adjusting on regression models?  
31. Line 166: Why two software were used? Can’t it be done in one software?  
  
Results  
32. Line 186: Interesting remarks, what about the disease occurrence in percentages?  
33. Line 202-220: please use standard format for reporting relative risk and 95% CI, like (RR:.., 95%CI:..).  
34. Line 218: It should be “negative binomial”  
  
Discussion:  
35. Line 242-243: “While the trend towards cesarean delivery is rising over time, there is a  
significant disparity between databases”. What does it mean, the rising trend is not observed between databases?  
36. Line 248-249: Can the author justify these discrepancies?  
37. Line 264: What kind of benefits?  
38. Line 268: “Nowadays’ is one word.  
39. Line 268-269: “Now a day educated pregnant women want to avoid vaginal delivery in fear of labor pain and other conveniences.” Any reference for this claim?  
  
Recommendations  
40. Line 310-313: “various strategies must be taken, such as the implementation of standardized protocols, requests of a second medical opinion prior to surgery, improving maternal empowerment during pregnancy and delivery, maternal and medical collaboration on birth plans” Is there any reference for the effectiveness of these measures?

6. PLOS authors have the option to publish the peer review history of their article ([what does this mean?](https://journals.plos.org/plosone/s/editorial-and-peer-review-process#loc-peer-review-history)). If published, this will include your full peer review and any attached files.  
  
  
If you choose “no”, your identity will remain anonymous but your review may still be made public.  
  
  
**Do you want your identity to be public for this peer review?** For information about this choice, including consent withdrawal, please see our [Privacy Policy](https://www.plos.org/privacy-policy).

Reviewer #1: No

Reviewer #2: No

Reviewer #3: No

[NOTE: If reviewer comments were submitted as an attachment file, they will be attached to this email and accessible via the submission site. Please log into your account, locate the manuscript record, and check for the action link "View Attachments". If this link does not appear, there are no attachment files.]  
  
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Attachments area