Author’s response to reviews

Title: Measuring the quality of maternal and care processes at the time of delivery in sub-Saharan Africa: Development and validation of a short index

Authors:

Vandana Tripathi (vtripathi@engenderhealth.org)
Cynthia Stanton (cstanto2@jhu.edu)
Donna Strobino (dstrobi1@jhu.edu)
Linda Bartlett (lbartlett@jhu.edu)

Version: 4 Date: 22 Feb 2019

Author’s response to reviews:

February 22, 2019

To the Editors of BMC Pregnancy & Childbirth:

Thank you for your response to the resubmission of our manuscript. We have made formatting changes in response to the editorial letter dated February 19, 2019:

1. Title Page: Please include the email addresses for all authors on the title page. The corresponding author should still be indicated. Please also ensure these email addresses match the email addresses provided in the editorial manager system.

Authors’ response: The email addresses were included in the revision, but have been labeled as such. The email addresses provided match the authors’ entries in the Editorial Manager system. Institutional affiliations (reflecting affiliation at the time of this research), addresses, and corresponding author designation are also provided. (Lines 4-20)

2. Declaration Heading: Please add the heading "Declarations" before you list the Declarations subheadings. In your manuscript, this will be directly before the “Ethics and Consent to
participate” heading. Please provide the missing sub-section section of Declaration and reformat the list as seen below.

Authors’ response: The “Declarations” heading has been added and the remaining sub-headings have been clearly formatted. The two missing sections, “Ethics approval and consent to participate,” have been added. The “Availability of data and material” sub-heading has been corrected. (Lines 410-469)

3. Please rename "Data Availability" to "Availability of data and material".

Authors’ Response: This change has been made. (Line 428)

4. Please rename "Figure titles" to "Figure Legends".

Authors’ Response: This change has been made. (Line 615)

5. Figure File: Figures should be attached to the manuscript as separate files, and each figure of a manuscript should be submitted as a single file.

Authors’ Response: The figures have been separated into three separate files and resubmitted.

Due to the detailed response to reviewers provided with the February 15 resubmission, we have provided that letter below.

Sincerely,

Vandana Tripathi, MPH PhD

Phone: +1.917.532.1731 | Email: vtripathi@engenderhealth.org

Response to reviewers appended to February 15 revision:
February 15, 2019

To the Editors of BMC Pregnancy & Childbirth:

Attached, please find the revision of our manuscript formerly entitled “Development and validation of a short index to measure the quality of care processes at and immediately following delivery in sub-Saharan Africa.”

For background, this manuscript was originally submitted in January 2016 and provisionally accepted for publication by the journal editor in November 2016. Changes were made in February 2017 been made in response to the Editor’s Letter dated January 17, 2017. These were submitted on February 14, 2017. On May 4, 2017, we received a further request for revision, and we sent an explanation of the changes that could not be made. After this, we did not receive a response to further requests for feedback. Following communication from the new Editor in November 2018 and February 2019, we have prepared the attached, updated revision.

All changes (from February 2017 and February 2019) are itemized below. Page and line numbers below refer to the revised documents. The manuscript files submitted do not have changes tracked or highlighted.

Editor Comment January 2017:

Please ensure that all tables and figures which were included in your previous publication and which has been included in the paper above is removed. We cannot have a duplication of the tables or figures in this new paper as this would constitute as plagiarism and a serious concern. You can however, still refer to the data within the text. To provide guidance, we have provided the plagiarism score and document as an attachment. As you can see, the tables have been highlighted (tables 1,2, text after table 2 lines 181-195 page 11, tables 4, and 5 etc). Please ensure that where text overlap exists, these text are reworded. We understand that in certain cases there are limited ways to phrase but we ask that you try to reduce the level of text overlap.

Editor Comment May 2017:

Thank you for submitting your revised manuscript and please accept our apologies for the delay in responding. We have now assessed your revised manuscript and we like to thank you for making the revisions to cut down the overlap between your current submission and your previous publication. However, during assessment we noted that you have kept tables 4 and 5 (current
tables 1 and 2) which still show significant overlap with your previous article. There is also overlap in some sections of your Methods. We would ask that you remove any data in tables that has been previously published and try to re-word those sections of text where there is significant overlap.

Revisions:

1. Title changed – The title was flagged by the plagiarism scoring software and has been revised.

2. Tables 1, 2, and 3 have been removed and references to the prior study/article [reference 39] have been added.

3. All three supplementary materials have been removed. Citations 39 and 45 are provided for the content in Supplement 1, and citation 39 for the content in Supplements 2 and 3.

4. Textual revisions to reduce similarity to citation 39 can be found in:

   - The descriptions of maternal mortality (lines 53-54) and newborn mortality (lines 57-58). The maternal mortality description was also updated to reflect more recent data.

   - The descriptions of skilled care utilization and its limitations (lines 59-60, 66-67).

   - The description of challenges in maternity care quality assessment (lines 69-70).

   - The description of routine data sources (line 81-82).

   - Lines 121-123, which now list the dimensions of QoPIIPC identified by the Delphi group, rather than relying on the original Table 1 (which was identical to the previously published material and has been deleted).
• The description of the secondary data source (lines 136-143).

• The description of the QoC sample design (lines 150-156).

• The description of the process by which deliveries were assigned total and index scores (lines 160-165).

• The descriptions of validation benchmarks in lines 167-177 (reflecting the deletion of the original Table 2).

• The description of consent procedures (lines 231-240).

• The description of the sample included in analysis (lines 246-257), addressing the deletion of the original Table 3.

• The descriptions of study limitations (lines 345-354).

• The description of program implications (line 362-387).

5. Textual revisions to acknowledge our prior study and the rationale for the current comparative validation study can be found in:

• A description of the development of the earlier comprehensive index and its limitation in use (lines 99-103).

• A description of the explicitly comparative rationale for and approach of this study (lines 107-113)
• A description of earlier comprehensive index as a reference point, and the methods used in its development and validation (lines 116-130).

• Explicit confirmation that the validation measures and analytic sample used in the current paper are identical to those used to develop the earlier, comprehensive index, in order to enable appropriate comparison (lines 176-178, 257-258).

6. Reference 3 was replaced to reflect updated data in the two years since the paper was originally submitted.

Items NOT revised:

A few items red-flagged by the plagiarism software and/or noted above cannot be changed. These are described here. We hope the summary below indicates the degree to which these are definitions, statistical terms, or the names of ethical review boards or donors that were “automatically” identified because they are in fact the same concepts or institutions as in the prior study.

1. In the abstract and main body, the phrase “quality of intrapartum and immediate postpartum care processes (QoPIIPC)” is red-flagged. This is the concept defined by the Delphi team and underlying the validation of this quality of care index. We cannot substitute another term.

2. Lines 173-176 in the revised manuscript provides a precise explanation of how terms that frequently bear multiple meanings in the public health literature are defined for the purposes of this study. Particularly with the removal of Table 2, describing the validation domains and quantitative benchmarks, this sentence cannot be changed.

3. Lines 196-202 in the revised manuscript describe the definition of area under the receiver operating characteristic curve, our chosen statistical means of assessing the discriminatory strength of our quality of care index. It is not possible to reword this text without garbling the definition.
4. Lines 226-231 in the revised manuscript list the ethical review boards that approved the study protocol in country and the findings of the Johns Hopkins University institutional review board. This text cannot be changed because the names of these IRBs are identical to those in the prior paper. Amendments have been made as possible to the remainder of the ethical considerations paragraph, for instance the consent procedures.

5. The current Table 1 (previously Table 4) was given a red flag because of the indicators in the leftmost column. However, this table must be retained to show the degree to which the comprehensive quality of care index developed previously and the delivery-only index reported here are similar or different – comparing the indicators included is essential to this conclusion. The data and comparisons presented in the results columns are new to this publication.

6. The current Table 2 (previously Table 5) received a red flag because of the validation benchmarks in the leftmost column. However, this table must be retained to show how well the delivery-only index reported here performs against validation benchmarks, as compared to the gold-standard comprehensive index described previously. The data and comparisons presented in the results columns are new to this publication.

7. Lines 278-295 provide reports on statistical comparisons and tests conducted during validation. Several lines in this section were red-flagged by the software; however, these are standard terms for reporting the interpretation of odds ratios, AUROCs, etc., and cannot be readily amended.

8. Lines 312-316 list the validation domains on which the delivery-only index reported here performed well. These are category names that have been precisely defined for statistical validation and cannot be amended. Similarly, the sample sizes and headings for the current Table 4 (previously Table 7) were red-flagged; however, the sample size cannot be amended, and the headings are validation domain category names that must be retained. The data presented in the results columns are new to this publication.

9. The funding and acknowledgement statements were red-flagged. The same donor supported the previous study and the one reported here has standard requirements for naming/citation, the funding statement cannot be changed. Similarly, the same group of technical experts provided non-authorial support to both studies, and this list cannot be amended.
Sincerely,

Vandana Tripathi, MPH PhD

Phone: +1.917.532.1731 | Email: vtripathi@engenderhealth.org