Author’s response to reviews

Title: Home based records for poor mothers and children in Afghanistan, a cross sectional population based study

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Author’s response to reviews:

28th February 2019

Dear Sir/Madam.

Re: PUBH-D-18-03825R1. The Afghanistan maternal and child health handbook for poor mothers and children attending primary care services, a population based study. Sayed Saeedzai; Iftekhar Sadaat; Zelaikha Anwari; Yohei Ishiguro; Shafiqullah Hemat; Shakir Hadad; Keiko
Osaki; Megumi Asaba; Rasuli Mudassir; Jane Burke; Ariel Higgins-Steele; Khaksar Yousufi; Karen Margaret Edmond BMC Public Health.

Thank you for sending the reviews of our paper. We have responded point by point below and have uploaded the clean and marked versions. The page and line numbers refer to the clean version of the manuscript. We look forward to your feedback.

Best regards, Karen Edmond for the study team

Reviewer 1. Asieh Moudi

1. Reported eligibility criteria do not match.

There were two types of eligibility.

(i) As part of routine service delivery, all women were eligible to receive a handbook if they were pregnant or had a child aged less than 24 months.

(ii) Women were eligible to be a respondent in the evaluation if they were married, aged between 15 and 49, had a child born in the past six months and lived permanently in Kama or Mirbachakot district from July 2017 to March 2018. We restricted the respondent population for the evaluation to women with a child less than six months of age because the handbooks had only been distributed for six months.

This has now been clarified on page 4 lines 114-117 of the revised manuscript.

2. It’s better to be explained about the effect of using the handbook on quality or quantity of care.

This is not an effectiveness study ie it is not a study of effects of the MCH handbook. We realise now the title is confusing, so as suggested by reviewer 3, we have changed the title to “Home based records for poor mothers and children attending primary care services in Afghanistan, a cross sectional population based study” on page 1. (We have also changed the abstract on page 2 line 43 and the methods section on page 4 line 106 to ‘cross sectional’).

We have also discussed the evidence about effectiveness of home based records in the discussion on page 7.

3. It’s better to be explained about the factors affecting the distribution, retention and use of the handbook
Factors affecting distribution, retention and use include: the many different types of standalone records, their complexity and the different places they are kept. Health service providers also do not appear interested in standalone HBRs or ‘ask’ the family if they have brought HBR to their clinic visit. Thus, there is no reinforcement of their importance or modelling of their use by health care providers. These problems are especially prevalent for families with low levels of literacy and migrant families who use multiple different service providers. This information has now been provided on page 3 and lines 82-87 of the revised manuscript.

4. Statistical tests have not been reported to compare districts and demographic characteristics.

The tables without statistical tests (tables 1-3) are just describing the study population. It is not usual to conduct statistical tests between these basic descriptive characteristics, especially as there is a risk of type 2 errors. However, we are happy to do so if the editor wishes it.

5a. P value of the Characteristics of the districts (table1) and Characteristics of MCH handbook respondents by district (table 2) and Characteristics of MCH handbook respondents by maternal wealth status (table 3) have not been reported

Please see point 4 above.

5b. P values for table 4 have not been reported.

Our primary and secondary objectives were to assess retention and distribution not use. We have written on page 3 ‘’Our primary objective was to compare the distribution of the new Afghanistan MCH handbook between poor and less poor women in two pilot districts. Secondary objectives were to assess retention and if there were important differentials in distribution across specific strata (maternal education, maternal age, parity).’’

We intentionally wrote in a separate sentence on page 3 ‘’We also assessed if there was variation in in how health care providers and mothers utilised the handbook across wealth quintiles.’’

Because of the problem in generating type 2 errors with multiple statistical tests, we only wanted to use statistical tests for our primary and secondary objectives. We only wanted to assess utilisation descriptively which is why we included it as a separate sentence.

Table 5 has the confidence intervals and p values for the associations between socio demographic characteristics and ‘distribution’. We could not assess retention statistically because only 10 women did not retain their handbook.

Table 4 has the detailed descriptive data for ‘utilisation’. This table was included so the reader could be clear about all the numerators and denominators for utilization and distribution. It was not meant to provide statistical tests. We would be happy to do this if the editor would prefer.
6. Despite the secondary objectives, the association between socio demographic variables and MCH handbook retention and use has not been done by regression test.

Please see point 5b above.

7. It is better to discuss the reasons for the better results of this study than to DHS.

Thank you. We have now written on page 7 lines 252-260 ‘In contrast, cross-sectional Demographic and Health Survey (DHS) studies of retention of ‘‘vaccination specific’’ HBRs have been published.9 Low rates (30-60%) of retention were reported across the 180 DHS surveys that were assessed. It is encouraging that retention in our study was higher (88%) than those DHS studies and the recent Afghanistan DHS report (56%).1 Qualitative studies indicate that this is because integrated HBRs are more highly valued and ‘remembered’ by mothers because the same source of health information is repeatedly used across the antenatal, postnatal and infant life course.11,20 In addition, our study was conducted only six months after distribution commenced and longer term follow up of our study is needed. All ten women who lost their book in our study had held the book for over four months’’

Reviewer 2. Sholeh Shahinfar

1. Abstract should be between 150 to 250 words.

We have checked the BMC Public Health author guidelines and the author guidelines say that the abstract should be 350 words or less. Our abstract is 341 words, so we have not changed this at present, but we are happy to do so if the editor wishes it.

2. Key words should be written below conclusion.

This has now been done.

3. The method is not well described.

We have re-reviewed the STROBE guidelines and this checklist has now been attached to this submission. We have added information on design, study population, study setting, data collection and data analysis. We feel this has substantially strengthened our paper.

4. Design. Exclusion criteria have not been written.

There were no exclusions. We have now included this on page 4 line 127-128 of the revised manuscript.
5. Exclusion and inclusion criteria should be written in another part (study population).

We have now included this on page 4 line 116-117 of the revised manuscript.

Reviewer 3. Marzieh Araban

1. Title: considering the fact that the study did not have any follow-up, the type of study seems to be a cross-sectional study.

Thank you, yes it was a cross sectional study. We have revised the title, abstract and design sections on pages 1, 2, 4 respectively

2. Abstract: the method section should clearly explain the measurement.

Thank you, this has now been revised on page 2 lines 45-48.

3. Introduction: You should focus on the problem and explain why such a study is needed. Why integrating MCH HBR in the complex environment of rural Afghanistan is needed. Is there any problem with utilization of MCH care? What the study added to the body of literature.

Thank you, we are sorry we weren’t clear. We described the problem but we used the word coverage instead of utilization in the first paragraph, this has been revised on page 3, lines 68-74. ‘’Afghanistan still has amongst the worst utilisation of the health services in the world. 46% of mothers use health services for immunization and less than 15% mothers use services for growth monitoring or promotion.1 Only 48% of women use health facilities for delivery and 17% use clinics for postnatal care.’’

We have now described the importance of HBRs on page 3 lines 80-92 ‘’Some countries use single ‘standalone’ HBRs (e.g. vaccination cards, growth monitoring cards, antenatal cards).4,5 Advantages include simplicity and low cost. However, many countries use integrated (also called combined) maternal and child health (MCH) HBRs instead.6 Integrated MCH HBRs include health promotion messages and health records across antenatal care (ANC), delivery, birth registration, postnatal care (PNC), vaccinations, nutritional and early childhood development services.3,5,7 In mid 2018, after a series of detailed systematic reviews of MCH HBRs,3 the World Health Organization (WHO) concluded that integrated MCH-HBRs can improve communication and continuum between health service providers and can improve the communication of important health information to families.3,11 WHO also reported that integrated HBRs can increase utilisation of clinics and hospitals for MCH services, though effects were variable and dependent on the quality of the interaction with the health care provider.’’
We have now described the gaps in the literature on page 3 lines 90-92. ‘However, no studies appear to have been published which have assessed distribution, retention, and use of integrated HBRs, especially in the poorest families in fragile states such as Afghanistan who need them most.’

4. Method section: please either adhere to guidelines for reporting cross-sectional studies, or if you do believe that the study is a trial, give an appropriate reference for this type of study, then adhere to the consort statements.

Thank you, this is not a trial. We described it as a population based study but we agree it is not clear what the design is and we should have used the term ‘cross sectional’. As described above we have revised the title and design sections and we have now used the STROBE guidelines for cross sectional studies and have attached the checklist.

5. Intervention: how were the contents of the handbook validated?

All the health records, illustrations and health promotion messages were directly replicated from existing materials that had been already been focus group tested in Dari and Pashto. This has now been clarified on page 5 lines 140-142 of the revised manuscript.

6. There are some vague issues regarding inclusion criteria, in line 59-60 it was said that women who had a child born in the past six months, while in the intervention it has been stated that, Women were eligible to receive a handbook if they were pregnant or had a child born in the past 24 months. It raises a question, who was eligible to receive the handbook?

This was a cross sectional evaluation study of the implementation of the MCH handbook into routine service delivery. As described in point 1 for reviewer 1 above, there were two types of eligibility.

(i) As part of routine service delivery, all women were eligible to receive a handbook if they were pregnant or had a child aged less than 24 months.

(ii) Women were eligible to be a respondent in our evaluation study if they were married, aged between 15 and 49, had a child born in the past six months and lived permanently in Kama or Mirbachakot district from July 2017 to March 2018. We restricted the respondent population for the evaluation to women with a child less than six months of age, because the handbooks had only been distributed for six months.

This has now been clarified on page 4 lines 110-117 of the revised manuscript.

7. Are the contents of handbook were applicable for two local languages; Dari and Pashto?
Please see point 5 above. All the health records, illustrations and health promotion messages were directly replicated from existing materials that had been already been focus group tested in Dari and Pashto. This has now been clarified on page 4 lines 136-142 of the revised manuscript.

8. Who delivered the handbooks to participants?

As part of routine service delivery the handbook was delivered by the usual Ministry of Public Health (MoPH) supply chain (i.e. the same supply chain that was used for the previously used ‘standalone’ vaccination and ANC cards). This has now been clarified on page 5 lines 145-147 of the revised manuscript.

9. Is the materials of handbook were comprehensive and compressible for all participants?

All the health records, illustrations and health promotion messages were directly replicated from existing materials that had been already been focus group tested in Dari and Pashto. This has now been clarified on page 4 lines 140-142 of the revised manuscript.

In addition, this wasn’t the aim of this study. The aim of this study was to assess distribution, retention and use.

10. How about usability of handbook women with complicated pregnancies?

We agree this is important. However, this wasn’t the aim of this study. Globally, home based records are distributed to all women regardless of whether the pregnancies are complicated or not. All HBRs have space for recording complications and midwives are encouraged to record information on all complications in the HBRs.

11. What do you mean by "study area in the poorest two quintiles compared to the least poor three quintiles"? How these poorest quintiles were defined? Did you have any standard measure? How the poor and rich families were defined?

Principal components analysis in Stata version 15.1. was used to create wealth quintiles using the standard methods described by Filmer D, Pritchett LH. Estimating wealth effects without expenditure data. Demography. 2001 Feb;38(1):115-32. This information and reference has been added on page 5 line 175.

Wealth categories were defined as ‘poorest’ (quintiles 1,2) and ‘least poor’ (quintiles 3,4,5).’' We accidently used the word ‘rich’ once and have deleted this from page 5. We prefer to use the words ‘poor’ and ‘least poor’ because no women in our rural study population can be considered rich.

This information can be found on page 4 lines 123-134.
12. Some explanation regarding routine MCH care in Afghanistan is necessary. The characteristics of care providers are necessary.

Thank you. This has now been included on page 5 lines 175-179.

13. Results: Tables are not self-explanatory.

Thank you. All titles and footnotes have now been revised.

14. Please remove unnecessary sections. I think the subtitle "MCH handbook use by health care providers" is not suitable for the explanations under the section.

The subtitles have now been removed.

15. Discussion: this part needs severe revision. You should focus on the study results the compare by similar studies.

Thank you. We have extensively revised the discussion section on pages 8-9 lines 275-308. We have now emphasized the DHS studies and explained them further. There are no other studies on retention and utilization. We have now provided new sections on the effectiveness studies.

16. Limitation part should be removed from discussion. It could be stated as a sub section under discussion part.

Thank you. We have edited the subsections to make the Discussion section flow better.

As suggested, we have re-reviewed the STROBE guidelines:


We have included the STROBE checklist as an attachment.

The STROBE guidelines state that information about limitations should be included in the Discussion section of a cross sectional paper. We feel these modifications have substantially strengthened our paper.