PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (**http://bmjopen.bmj.com/site/about/resources/checklist.pdf**) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Factors influencing rapid progress in child health in post-conflict Liberia: a mixed methods country case study on progress in child survival, 2000-2013
AUTHORS	Brault, Marie; Kennedy, Stephen; Haley, Connie; Clarke, Adolphus; Duworko, Musu; Habimana, Phanuel; Vermund, Sten; Kipp, Aaron; Mwinga, Kasonde

VERSION 1 – REVIEW

REVIEWER	Lars Åke Persson London School of Hygiene and Tropical Medicine, based at the Ethiopian Public Health Institute, Ethiopia
REVIEW RETURNED	08-Mar-2018

GENERAL COMMENTS	Among the relatively few countries in sub-Saharan Africa that met the Millennium Development Goal 4 of reduced child mortality, there are some countries that managed to reach this goal in spite of war and severe social unrest. Liberia is such an example. Given the many conflicts, post-conflict and fragile states in Africa and elsewhere we need a better understanding of barriers and enabling factors for a rapid improvement in child health and survival. This case study could potentially make such a contribution. There are, however, some significant weaknesses in this present version of the paper. The aim of the paper is not presented clearly. Different aspects of what the article intends to show are found in different parts of the Introduction and Methods. Preferably a distinctly formulated aim should be located at the end of the Introduction. The paper presents the facts that already are known from the Countdown reports, World Bank databases, etc.: the roll-out of services along the maternal and child continuum of care, the improved coverage, and the reduction of mortality. Some additional information is added from national sources. To get a better understanding of barriers and enabling factors qualitative key informant interviews on different levels in the health system and focus group discussions were performed. When reading the manuscript, I get an impression that this data collection was instead “quantitative” and should be described as structured interviews with informants and group interviews with mothers in communities. Were the key informant interviews done as recommended for “in-depth” interviews, allowing the interviewees to talk and give their perspectives openly? If so, it is surprising that all themes coincide with the a priori decided themes according to interview guidelines.

	Were the number of interviews decided beforehand or added until saturation was reached? Were the focus group discussions performed as recommended, allowing all participants to talk freely, and present perceptions, opinions, and experiences that went beyond any discussion guidelines? Was the number of groups continued until saturation? A priori decided themes are an unusual way of presenting results from a qualitative data collection. You can't know in advance what themes a qualitative approach will generate. The authors write that the qualitative data collection was reflected in some more themes than those predicted in advance. Those themes are, however, not found in the results. Overall, the paper mainly presents the already known facts regarding commitment from government and improved coverage of services, illustrated by quotations from voices that echo those facts, and some additional comments regarding difficulties in getting appropriate services. If the qualitative data include some more "flesh on the bones" regarding barriers, how those were tackled, promoting factors, etc., I would advise the authors to revise the manuscript accordingly. Don't lock the qualitative information into boxes that were prepared already in advance.

REVIEWER	Irene Akua Agyepong Ghana Health Service, Research and Development Directorate, Dodowa Health Research Center Ghana
REVIEW RETURNED	09-Mar-2018

GENERAL COMMENTS	Well and clearly written. Predominantly descriptive and does not really provide new insights per se i.e. I have heard and had these precursors of "success" prescribed in health sector meetings in a donor dependent context. Paper is rather long. It could be tightened e.g. quotes from the qualitative interviews could be cut back. I also find the analysis somewhat superficial in that it focuses on the technical interventions but does not pay so much attention to how they were funded and who drove the agendas. It is mentioned that Liberia is donor dependent and many of the achievements were donor funded. I suspect the agenda was also donor drive despite the "prioritization by the president" and similar statements. It raises questions as to how to sustain the gains into the medium to long term. At least the authors could discuss and reflect a bit on this? Generally I find the findings and conclusions quite predictable from a standard global health approaches success story perspective /lens. However, having said this, I think there are other actors in global health who will love this kind of paper. Where you stand depends on where you sit. I would encourage the authors to be a bit more critically reflective

VERSION 1 – AUTHOR RESPONSE

Reviewers' Comments to Author:

Reviewer: 1
Reviewer Name: Lars Åke Persson

Institution and Country: London School of Hygiene and Tropical Medicine, based at the Ethiopian Public Health Institute, Ethiopia
Competing Interests: None declared

Among the relatively few countries in sub-Saharan Africa that met the Millennium Development Goal 4 of reduced child mortality, there are some countries that managed to reach this goal in spite of war and severe social unrest. Liberia is such an example. Given the many conflicts, post-conflict and fragile states in Africa and elsewhere we need a better understanding of barriers and enabling factors for a rapid improvement in child health and survival. This case study could potentially make such a contribution. There are, however, some significant weaknesses in this present version of the paper.

The aim of the paper is not presented clearly. Different aspects of what the article intends to show are found in different parts of the Introduction and Methods. Preferably a distinctly formulated aim should be located at the end of the Introduction.

> Response: We have removed aspects of the aims from the methods. The aim can now be found in the last paragraph of the introduction.

The paper presents the facts that already are known from the Countdown reports, World Bank databases, etc.: the roll-out of services along the maternal and child continuum of care, the improved coverage, and the reduction of mortality. Some additional information is added from national sources. To get a better understanding of barriers and enabling factors qualitative key informant interviews on different levels in the health system and focus group discussions were performed. When reading the manuscript, I get an impression that this data collection was instead “quantitative” and should be described as structured interviews with informants and group interviews with mothers in communities.

> Response: We have clarified that the only quantitative information collected was a brief survey each participant completed before their interview/focus group to obtain socio-demographic information and basic MNCH experience (key informants) or birth/child mortality information (focus group participants). We have also clarified the qualitative procedures used in our responses below.

Were the key informant interviews done as recommended for “in-depth” interviews, allowing the interviewees to talk and give their perspectives openly? If so, it is surprising that all themes coincide with the a priori decided themes according to interview guidelines.

> Response: We have clarified that key informants were encouraged to discuss a wide variety of topics openly, and have also added additional information on the coding approach and structure. Participants discussed many factors impacting MNCH, and this paper does not present everything discussed. Rather, we focused on those issues that came up most consistently in interviews and the document review.

Were the number of interviews decided beforehand or added until saturation was reached?

> Response: We have added the following information to explain the sampling approaches used for the key informant interviews: “To arrive at the number of key informant interviews to be conducted, we used a combination of approaches. Due to study logistics, we set a minimum number of six interviews to be conducted with each group. In an effort to achieve saturation, we prioritized diversity in the types of key informants we reached. The in-country PI and research assistants also monitored data collection and saturation of key themes.”

Were the focus group discussions performed as recommended, allowing all participants to talk freely, and present perceptions, opinions, and experiences that went beyond any discussion guidelines? Was the number of groups continued until saturation?

> Response: Focus groups were performed as recommended, with participants openly providing

their opinions. Research assistants were trained in techniques to promote open discussion and to document non-verbal information that would not be included on audio recordings. We have clarified that the number of groups was not based on saturation due to logistical constraints.

A priori decided themes are an unusual way of presenting results from a qualitative data collection. You can't know in advance what themes a qualitative approach will generate. The authors write that the qualitative data collection was reflected in some more themes than those predicted in advance. Those themes are, however, not found in the results.

Response: In the revised manuscript, we have clarified how the overarching content areas were established to guide the multi-country case studies. We have also noted that these content areas were intentionally broad to enable discovery of new themes or issues most salient to individual participants in each country.

Overall, the paper mainly presents the already known facts regarding commitment from government and improved coverage of services, illustrated by quotations from voices that echo those facts, and some additional comments regarding difficulties in getting appropriate services. If the qualitative data include some more "flesh on the bones" regarding barriers, how those were tackled, promoting factors, etc., I would advise the authors to revise the manuscript accordingly. Don't lock the qualitative information into boxes that were prepared already in advance.

Response: Due to requests to shorten the length of the paper, it is difficult for us to add additional information (such as disconfirming quotations), however, we have added some additional information on key informants' opinions of donor relationships per Reviewer 2's request. We have focused the paper on the issues that seemed most salient to participants based
on our analyses and in consultation with the in-country PI.

Reviewer: 2
Reviewer Name: Irene Akua Agyepong
Institution and Country: Ghana Health Service, Research and Development Directorate, Dodowa Health Research Center, Ghana
Competing Interests: None declared

Well and clearly written. Predominantly descriptive and does not really provide new insights per se i.e. I have heard and had these precursors of "success" prescribed in health sector meetings in a donor dependent context. Paper is rather long. It could be tightened e.g. quotes from the qualitative interviews could be cut back.

Response: We have made edits for concision. We have also moved Tables 2 and 3 with participant demographics to the supplementary materials to shorten the length and improve readability.

I also find the analysis somewhat superficial in that it focuses on the technical interventions but does not pay so much attention to how they were funded and who drove the agendas. It is mentioned that Liberia is donor dependent and many of the achievements were donor funded. I suspect the agenda was also donor drive despite the "prioritization by the president" and similar statements. It raises questions as to how to sustain the gains into the medium to long term. At least the authors could discuss and reflect a bit on this? Generally I find the findings and conclusions quite predictable from a standard global health approaches success story perspective /lens. However, having said this, I think there are other actors in global health who will love this kind of paper. Where you stand depends on where you sit. I would encourage the authors to be a bit more critically reflective

Response: We have added additional information from the key informants reflecting on the extent to which donors have driven Liberia's gains, as well as Liberia's evolving relationship with
donors. We have also added some additional comments on this in the discussion.

FORMATTING AMENDMENTS (if any)

Required amendments will be listed here; please include these changes in your revised version:
- Please include Figure legends at the end of your main manuscript.

Response: Figure legends have been moved to the end of the main manuscript.

- Kindly re-upload SUPPLEMENTARY FILE in PDF format.

Response: We have uploaded the supplementary materials file as a pdf.