Author's response to reviews

Title: Use of peers, community lay persons and Village Health Team (VHT) members improves six-week postnatal clinic (PNC) follow-up and Early Infant HIV Diagnosis (EID) in urban and rural health units in Uganda: A one-year implementation study

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Version: 4 Date: 9 July 2015

Author's response to reviews: see over
Dear Sir/Madam,

Re: Response to the comments for the manuscript entitled, “Use of peers and community lay persons improves six-week postnatal clinic (PNC) follow-up and Early Infant HIV Diagnosis (EID) in urban and rural health units in Uganda: A one-year implementation study”

We thank you for reviewing our manuscript and providing questions and comments to improve the presentation. We have carefully reviewed the comments from the reviewers and have responded to each question and comment below;

**Editorial requests:**
1.) Abbreviations. need to move to end of manuscript to follow conclusions.

Thank you for the recommendation to move the abbreviations to the end of the manuscript. We have moved the abbreviations to the end of the manuscript after conclusions *(Page 9 Line 349)*

2.) Figure legends required in manuscript after references

Thank you for pointing out this requirement. We have added figure legends to the manuscript and placed them after the references *(Page II Lines 419 & 421)*

3.) Please check all authors in Author's Contribution section

We have checked all the authors and confirmed their contributions to the manuscript writing *(Line 399)*

4.) Was the consent from mothers informed?
Yes, consent was informed and we have added “informed” under data collection section and ethical consideration *(Line 149 & 187)*

**Authors’ Addition/Revision**

1. Figure 1 was revised to segregate maternal or infant death after birth. This was to address the previous difference in the denominator for figure 1 and table 2 as pointed out by both reviewers

2. With revision of figure 1, we revised figure 2, table 2 and table 3 to match the revision in the denominator

3. The abstract was revised to show the difference between the study and whole clinic population increments for both PNC and EID. This was not very clear previously
4. Loss to follow up was recalculated to include all mother-baby pairs not seen at 6-weeks (after censuring) (Line 198 and Line 302)

**Reviewer’s report (1)**

**Title:** Use of peers and community lay persons improves six-week postnatal clinic (PNC) follow-up and Early Infant HIV Diagnosis (EID) in urban and rural health units in Uganda: A two-year implementation study

**Version:** 2

**Date:** 28 May 2015

**Reviewer:** Maryse Kok

**Reviewer’s report:**

Use of peers and community lay persons improves six-week postnatal clinic (PNC) follow-up and Early Infant Diagnosis (EID) in urban and rural health units in Uganda: A two-year implementation study.

**Major compulsory revisions**

1. The abstract is lacking information on the difference between study and non-study participants. You could consider replacing the clinic-specific information in the results section by this information. However, at the very end of the manuscript, it becomes clear that study participants data were not disaggregated from the general clinic reports, so the proportion from the rest of the clinic includes data for study participants. This makes it necessary to change wording throughout the manuscript, as a comparison between study an non-study participants cannot be made. I agree with the observation that when data would have been aggregated, possibly a bigger difference would have been observed. But the confusing wording should be changed. For example, line 250: “infant HIV testing increased.. for both non-study and study participants”. In fact, this cannot be presented like this. Same for line 148: “compared it with those mothers who were not recruited in the study” should be sometime like “compared with the whole clinic population”. The limitation comes quite late in the manuscript, it would be good to add in the Methods section what was done exactly (for example in the paragraph starting at line 138).

Thank you for pointing the confusion between the “study population” and the general clinic population.

Response

- We have added information comparing study and whole clinic population for both PNC and EID to the abstract
- We have replaced clinic specific information with overall incremental differences between study and whole clinic population data in the abstract and method section
- As suggested, we have replaced “non-study participants” with “whole clinic population” throughout the whole manuscript
- We have also included a statement in the methods section (under data collection) to explain that “study participants’ data were not disaggregated from the general clinic reports”, so the proportion from the rest of the clinic includes data for study participants as well (Line 167)

2. The abstracts missed the baseline for EID.

Thank you for pointing out this omission. We have included the baseline EID to the abstract.

3. In the conclusion of the abstract, you propose that the use of peers “should be implemented” on other health units. Of course this would be great, but what about feasibility, sustainability, costs, incentives for peers and lay persons etc. It would be good if more is added about this in the Discussion. Would an intervention like this be sustainable? In this case, is the peer system going on after the study was conducted? Did lay persons/ peers get
incentives? Also, I would like a bit more information about what actually happened in the results section: it is stated that more peer home visits were conducted. How many on average per woman? More detailed information regarding this would be helpful for others in deciding whether such an intervention is feasible in their setting.

Thank you for highlighting the need to better understand the costs and feasibility of the study intervention. We have added statements about incentives and facilitation for the peers, VHTs and community lay persons in the methods section (Page 4 Line 109-113). The sustainability and feasibility of the intervention is also added to the discussion (Page 7 Line 271-275)

There were on average 3.5 peer home visits per client (Pg 5 Line 160)

**Minor essential revisions**

4. Could you provide more information about EID? As I am not an HIV expert, I was confused by the fact that most of the manuscript focuses on PNC at 6 weeks, but EID is measured up till 12 weeks.

We have clarified the timing of EID versus 6 week post natal clinic visit. The objective of the study was to measure PNC attendance and EID. The PNC period was defined differently from the EID period.

- Routinely, PNC should be provided at six weeks post delivery. The study added a window period of two weeks allowing up to 8-weeks post delivery (5-8 weeks)
- EID as per Uganda National PMTCT guidelines is infant HIV testing from blood drawn for infant HIV testing by two months of age (8-9 weeks). The study defined the window up to 14 weeks because some mothers bring their infants late for their first postnatal visit, when EID would be done.

We have clarified this in the abstract and data collection section (Page 2 line 15-16 & Pg 5 Line 164-167 respectively)

5. Line 61: “we used peers and lay persons”: why not (shortly) saying “we trained them and these people assisted in X.” etc. The word “use” does not capture properly what was done.

We appreciate your suggestion in wording. now reads ”we trained peers and influential community lay persons….“ (pg 3 Line 62)

In the same statement line 61-63, EID should be added, as the objective in the Introduction should be in line with the objective provided in the abstract (line 5 and 6).

Thank you for pointing out his omission. As suggested we have added the objective of EID to the introduction (Pg 3, Line 65-66)

6. Line 81: could you make clearer that VHTs were existing bodies (I assume), consisting of X volunteers? I understand that VHTs were involved in the rural area, and lay persons in the urban areas. Please clarify. In line 91, you present that lay persons and peers were trained. VHTs are not mentioned anymore, which is confusing. Same in line 102.
We acknowledge this oversight and have added a statement on VHT members reading, “Members of the VHT were selected from the existing district VHTs, and further trained to support and follow up study participants” under the peer and community lay persons section. (Pg 3, Line 87)

A breakdown of the number of volunteers is in the next paragraph and the distribution of volunteers by rural and urban clarified in the same paragraph (Pg 4, Line 97-99)

7. Line 97-99: follow-up meetings with whom? Regular trainings were organized by whom? Activity reports submitted to whom? Line 108: joint community meetings by study staff and lay women/men: what was the role of the study staff here? The question behind this is, what were tasks of study staff and what did the “regular” health and management staff do? This is related to the question under 3, about feasibility and sustainability of these kinds of interventions.

We appreciate your questions regarding the meetings and reports and we have included in the methods section as suggested,

- Follow up monthly meetings were held in the community by the study coordinator or designee and the lay-persons (pg 4, line 106)
- Regular and targeted trainings were organized by the study coordinator or designee for the lay-persons (pg 4, Line 108-109)
- Activity monthly reports submitted to the study coordinator or designee (pg 4, Line 108)

Line 108 (now Line 126-129): Now reads “lay persons held community meetings in the evenings and weekends to accommodate men’s work schedule. The study staff (study coordinator, research assistant and health visitor) attended a selected number of community meetings to supervise the lay persons and the activities were summarized in the monthly activity reports.”

“Regular” health and management staff worked alongside the study staff, mainly in the clinics. They continued to offer the clinic services to the “whole clinic population” but we did not engage them in the community activities. The community activities were conducted by lay-persons and supervised by the study staff

8. Line 121: general community activities: who conducted these?

We have added the following: “General community activities by the community lay persons and study staff included mobilization…” (now Line 141)

9. Line 135-6: this sentence does not read well.

Thank you for pointing this out. We have edited this sentence and it now reads …

Now reads: “Participants were visited according to the home visit schedule or to encourage them to attend the clinic after missing a scheduled clinic or at the end of the study to complete study activities Line 158-159:

10. Line 144: 588 should be 558.

Thank you for pointing this error out: Corrected to 558 (Line 173)
11. Line 172: urban-paying and urban-free: this has not been explained yet. Earlier in the manuscript, it has been presented that all PMTCT services were free.

Response
Urban-paying (Private) was used to indicate Hospitals where a client pays to get regular health services. However, just like the Urban-free (public, government units), the government has made all HIV/PMTCT services (consultation in ART clinic, drugs and HIV-specific monitoring lab services like CD4 tests) free even in the private units.
We have defined this better in the methods section and for consistency as (Line 70-71) and (Line 204-205)
- Urban-free medical service
- Urban-private not-for-profit
- Rural- free medical service

12. I do not understand the difference between the figure in table 2 (n=511) and the one presented in figure 1 (n=535). I might be confused and it can be something obvious. Can you shed some light on this? Figure 1 presents the percentages as “PNC attendance among study participants”. These percentages do not correspond with the percentages presented in paragraph 3 of the Results section.

Thank you for raising these inconsistencies in the numbers, especially the denominators. We have revised the figures and tables and used n=511, which are the total study numbers throughout after censuring.

13. Could you rephrase the sentence in line 255 please.

We have changed the sentence to now read,, “At rural Mpigi health center, we observed a significant reduction in HIV testing between study participants and the whole clinic population, a finding we believe may be due to small numbers and very low clinic return in the whole Mpigi PMTCT clinic population, hence providing higher spill over influence from study intervention”

**Discretionary revisions**

14. Between base and end line, there was 1 year. The title says 2 years. I understand the whole study (from development towards analysis) was 2 years; however, it can be confusing to the reader.

Thank you for pointing this out. The study intervention was one-year, therefore we have revised the title to reflect this.

15. I wonder, when I read the paragraph on task shifting/ sharing in the discussion section (line 232), if this is really the case. The tasks that the peers conducted, from which cadre were they “shifted”? Or were they just added? The conclusion goes into that direction: “peers and community lay persons are an invaluable addition to the traditional health care team.” The persons are indeed added to the team, but were they executing existing or new tasks?

Response
Routinely in HIV/PMTCT clinics, health workers are expected, in addition to regular health care, to offer counseling, home visits and engage the community through community outreaches, mobilization and
sensitizations. The Ministry of Health added Village Health Team (VHT) members to support community sensitization and mobilization for health services, however this cadre of workers has not been fully engaged and are redundant in a number of districts (including Kampala district).

In reality, except for programs with additional non-governmental funds to carry out all the services, these activities are not routinely carried out and so the activities the peers carried out would normally have been carried out by the health worker. We believe this would constitute “task shifting” because we did not create “new activities” outside what would be expected of the health workers

16. Consider to delete non-study staff in line 278, it’s confusing. Lay persons were part of the intervention.

We have deleted and replaced with community lay persons (Now Line 317)

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:** I declare that I have no competing interests.
Reviewer's report (2)

Title: Use of peers and community lay persons improves six-week postnatal clinic (PNC) follow-up and Early Infant HIV Diagnosis (EID) in urban and rural health units in Uganda: A two-year implementation study

Version: 2

Date: 30 May 2015

Reviewer: Madeleen Wegelin

Reviewer's report:

Major:
1. The numbers in the text and the tables do not always correspond or are not sufficiently explained. For example, Line 18 says 401/517 live births in Table 2, the number given is 511, on line 163 PNC given is 401/558 but there were 535 with a confirmed live delivery. Line 165 mentions 55% attendance in Mpigi, while in Table 2 the figure of 62.9% is given.

Thank you for pointing this error out. We have clarified the denominator for consistency and have defined as 511 (after censoring 47 mother-infant pairs before 6-weeks). The percentages have been recalculated using the same denominator, in all the figures and tables.

2. Line 83-87: It is not clear if the peers also have to fulfill the criteria that apply to the VHT and community lay persons. The sentence on line 86 peers were HIV infected should be: peers were selected who were HIV infected. Had these peers disclosed their infection?

Now (Line 88-95)
Line 83, we have added “Peers” as the criteria applied to peers as well
Line 86, we have revised and now reads, “Peers were selected who were HIV infected.”

Due to their daily interaction in the clinic, disclosure to immediate family was required. We have added, “Peers had disclosed their HIV status to immediate family members and were willing to share care and treatment testimonies with the study participants.” (Line 94-95)

Minor:
3. Line 255-257. Discuss more in depth why the percentage of HIV testing among the general public is higher than among the study participants in Mpigi. It is explained by low clinic return (which also has a reason) and PNC return representing different individuals - this I do not understand.

We believe this was due to the small overall clinic attendance for Mpigi, with higher spill over of intervention to the whole of clinic. We have revised in the discussion (Line 296-297)

4. Line 283 - 286 There is a difference in reach between peers and community lay persons. There should be a discussion on why peers are more successful to reach mothers. This has to do with stigma, especially high in Mpigi and I would like to see more attention on that. It is unclear if the peers and community lay persons are also trained in acknowledging and addressing stigma - if not, this can be a valuable addition to the training.

Thank you for pointing this important issue regarding stigma and lay persons. We have added a section in the discussion to explain the difference between peers and community lay persons.

Stigma was addressed in the training for peers and lay persons. We have added statement in method section under peers (Line 105)
5. The use of ; in interpuntion is strange f.e. line 66 between including and Mulago. This is done in the whole article.

Thank you for pointing out this error in punctuation We have revised and deleted as suggested

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:** I declare that I have no competing interest