Author's response to reviews

Title: The impact of home-based HIV counseling and testing on care-seeking and incidence of common infectious disease syndromes in rural western Kenya

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Author's response to reviews: see over
Dear Editor,

RE: MS: 1256639581201910 – THE IMPACT OF HOME BASED HIV COUNSELLING AND TESTING ON HEALTH CARE SEEKING AND INFECTIOUS DISEASE INCIDENCE IN RURAL WESTERN KENYA

We once again thank you for your quick review of our manuscript. One of the reviewers provided several valuable edits to the text which we have all accepted. The second reviewer cleared the manuscript without additional comments. We are very happy about the shape of the manuscript now.

We are submitting two versions of the manuscript. The first file named “HBCT manuscript-17June2014_with highlight” contains some words and sentences with yellow highlight indicating newly added text, and words and sentences with strikethrough signifying deleted text – all based on recommendations from reviewer 1. The second file named “HBCT manuscript-17June2014_clean” is the clean version that incorporates the reviewer’s edits. For ease of reference, we have described below sections of the manuscript that have been edited. We have also inserted line numbers to the highlighted version of the manuscript to easily identify where the changes have been made.

We agree with both reviewers that the manuscript flows very well now.

Once again thank you very much for your continued willingness to consider our revised manuscript for publication.

Sincerely

Godfrey Bigogo.
Description of minor essential, and discretionary revisions of the manuscript as advised by Reviewer 1

1. **Page 3.** Abstract. Results section. Line 39 previously read as follows; “At one year after HBCT, 50% of…” It has been updated to read as follows; “One year after HBCT, 50% of …”

2. **Page 3.** Abstract. Results section. Line 43 previously read as follows; “Similar magnitude decreases were not observed among HIV-infected persons not attending PSCs or HIV-uninfected persons.” This has now been updated as follows; “Among HIV-infected persons not attending PSCs and among HIV-uninfected persons, decreases in incidence were significantly lower.”

3. **Page 5.** Introduction. Paragraph 2. Line 74, previously read as follows; “We hypothesize that as more people know their HIV status and get enrolled into HIV care and treatment programs and receive highly-active antiretroviral treatment …” This has now been updated as follows; “We hypothesize that as more people know their HIV status, enroll into HIV care and treatment, and receive highly-active antiretroviral treatment …”

4. **Page 6.** Methods. Paragraph 1. Line 86 – 87 previously read; “The Lwak area has been the site of population-based infectious disease surveillance (PBIDS) since 2005 run by the Kenya Medical Research Institute (KEMRI) collaborating with the U.S. Centers for Disease Control and Prevention (CDC), (Figure 1).” It now reads as follows; “Since 2005, the Lwak area has been the site of population-based infectious disease surveillance (PBIDS) run by the Kenya Medical Research Institute (KEMRI) in collaboration with the U.S. Centers for Disease Control and Prevention (CDC), (Figure 1).”

5. **Page 7.** Methods. Line 98 previously read as follows; “Nyanza Province, where Lwak PBIDS is located, has the highest HIV prevalence in Kenya – 15% for the adult population based on national surveys.” This now reads; “According to the most recent national HIV/AIDS survey in 2012, Nyanza Province, where Lwak PBIDS is located, has the highest HIV prevalence in Kenya – 15% for the adult population.” And line 100 - 101 previously read as follows; “The 2007 survey showed that only 34% of adults aged 15 years and above in the province had ever been tested before for HIV. A recent survey however showed a marked increase to 72%.” This now reads; “The first HIV/AIDS survey in 2007 showed that only 34% of adults aged 15 years and above in the province had ever been tested before for HIV. However, the 2012 survey showed a marked increase to 72%.”

6. **Page 7.** Methods. Household surveillance. Line 113 – 114 previously was “…a proxy who is knowledgeable about the participant’s health is interviewed.” This has changed to
“…a proxy who is knowledgeable about the participant’s health completes the interview.”

7. **Page 8.** Methods. Home-based counseling and testing. Line 124 – 126 previously read; “Counselors collected additional finger-prick blood samples for CD4 testing for individuals newly diagnosed with HIV.” This now is as follows; “For individuals newly diagnosed with HIV counselors collected additional finger-prick blood samples for CD4 testing.” And line 133 previously was “…PBIDS area where HIV care and treatment services were provided free.” This now reads; “…PBIDS area where free HIV care and treatment services were provided.”

8. **Page 10.** Methods. Data collection and analysis. Line 163 – 165 previously read; “We calculated the incidence of four syndromes namely acute respiratory illness … and diarrhea from the household visits in the pre and post-HBCT periods.” This now reads; “We calculated the pre and post-HBCT incidence of four syndromes namely acute respiratory illness … using data from the household visits.” And line 180 previously read; “We compared proportions of persons seeking care before and after HBCT for each syndrome based on household visit data.” It now reads; “Using household data, we compared pre- and post-HBCT proportions of each syndrome among persons seeking care.”

9. **Page 14.** Discussion. Line 269 – 270 previously read; “The decline likely resulted, at least in part, from cotrimoxazole prophylaxis, whose impact on infectious disease morbidity reduction is well-documented.” This now reads; “The decline likely resulted, at least in part, from cotrimoxazole prophylaxis, which is known to reduce infectious disease morbidity.” Line 282 previously read; “Much of ARI is caused by viruses, which should be unaffected by cotrimoxazole prophylaxis.” It now reads; “This may be due to the fact that much of ARI is caused by viruses, which are generally not affected by cotrimoxazole prophylaxis.”

10. **Page 16.** Discussion. Line 302 previously read; “We believe the increase observed in hospitalization rate among those with HIV ...” It now reads “We believe that the observed increase in hospitalizations among those with HIV ...”

11. **Page 17.** Discussion. Line 329 previously read; “Second, the limited time periods of surveillance were not enough time to monitor an impact on mortality in the population, which was still a relatively rare event.” This now reads; “Second, the limited time periods of surveillance did not allow us to monitor the impact of care seeking on mortality as this is still a relatively rare event.”
12. **Page 18. Discussion.** Line 348 – 350 previously read; “Yet, our study also offers a caution that HBCT alone is not enough, but there needs to be enhanced efforts to get those who test positive into HIV care and treatment to realize the full health benefits of HBCT.” This now reads; “However, we do caution that in order to realize the full benefits of HBCT enhanced efforts are needed to ensure those who test positive successfully enter HIV care and treatment.”

End of edits.