Reviewer's report

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

Version: 1 Date: 3 March 2014

Reviewer: Paula Braitstein

Reviewer's report:

Summary: This is an interesting manuscript that seeks to identify whether a large scale HBCT program in western Kenya leads to increase in the number of patients who enrol in care as well as if there is reduction in the incidence of infectious disease syndromes. The analyses are sound although more detail is needed on recruitment/eligibility criteria. The discussion reads well but there are several areas where clarifications are needed. Importantly, the manuscript requires a proper edit.

Be consistent on use of acronyms

Be consistent with spelling of healthcare and the use of healthcare-seeking (vs. healthcare seeking)

MANDATORY CHANGES

ABSTRACT

1. State specific location and program name in Abstract

2. Specify that you analyzed ‘healthcare-seeking BEHAVIORS’

3. Specify what type of analyses were used in the Methods

4. Define RR and CI’s at first use

RESULTS

15. What was the response rate for HBCT? How many testers vs. number of tests offered?

16. Were there statistically significant differences between men and women?

17. Was time to enrollment in PSC measured? It would be useful to know the median time to enrollment (and be able to compare in pre- vs. post-HBCT period).

18. Report p-values and CI’s and/or state if differences were significant between groups (HIV-infected and enrolled vs. HIV infected and not enrolled vs. HIV-negative)
19. Significant findings including ORs and 95% CIs should be reported in text (e.g. Table 4 findings)

SUGGESTED:

INTRODUCTION

5. Helpful to know what proportion of people do not know there HIV status

6. In the 2nd paragraph, first sentence: specify why having more people on treatment is important...i.e., reduce viral load, reduce forward transmission etc.

7. In what ways does HBCT overcome barriers of stigma and cost....describe HBCT further to address this and provide a rationale for the study. Furthermore, this also would help to provide further plausibility of the findings.

8. It may be worthwhile to emphasize that there are multiple different avenues for testing including provider initiated, HBCT, community-based, ANC etc. Different venues may have different impacts.

9. It is great to see hypothesis but specific objectives of analyses in addition to describe the program in general. i.e., we describe the impact of a large scale program to....

METHODS

10. Study site and surveillance population
   -include a figure to show study site, area in Kenya
   -define HOLOENDEMIC as it is not commonly used

11. Move Home-Based Counselling and Testing section before Household Surveillance

12. Household Surveillance:
   -State the eligibility criteria for households to be included
   -do all household members have to participate?
   -it should be clarified was ‘disabled’ means in this setting. I'm assuming it is only those who are cognitively impaired.
   -add ‘recording’ after auxiliary temperature in the last sentence of the paragraph

13. Clinical Care
   -2nd paragraph, please clarify what is meant by ‘providing free HIV care and treatment services once a week’. Does this mean HIV care is only provided free of charge once a week but is offered daily or does this mean that HIV care was only offered once per week.

14. Data Collection and Analysis
   -How outcomes were defined and measured should be stated explicitly: i.e.,
binary, categorical, continuous etc...

- Clarify what is meant by: we assumed an individual’s HIV status at HBCT would likely be the same in pre- and post-HBCT. Do you mean that individuals found to be positive in post-HBCT were already positive in the pre-HBCT period or do you mean the overall proportion of individuals infected would be similar in the pre- vs. post HBCT period?

-Sentence: To measure changes in severe disease, we used rates of hospitalization....This sentence is a bit awkward so please revise.

-Why did you adjust for age and sex? The rationale for this is unclear.

-Time to enrollment, Time to ART initiation would also be worthwhile to explore in order to determine if HBCT speeds up linkage to care. A simple survival or time to event analyses may be useful here.

15. Ethical Review

-please state if consent was verbal or written. What about consenting for proxies?

DISCUSSION

20. 1st paragraph:

-“HIV testing and counselling is considered the entry point into HIV care”. The location of testing and counselling matters for entry into care as specified by the objective of this manuscript so a less general statement may be more appropriate.

-Sentence: ‘For the persons who did access a PSC, the majority received appropriate treatment’. Appropriate treatment for what? HIV? Please specify.

-final statement re: ART coverage, it would be worthwhile to comment on whether this is low or expected in this context.

21. 2nd paragraph

- 1st sentence: The ultimate goal should also include reductions in HIV incidence.

-A strong positive association may have been found but other factors help to determine if the relationship is causal. Again, understanding why HBCT may be effective and improving outcomes should be explored here.

-Sentence: “In addition to contrimoxazole, initiation of ART has been shown...”. It is important to add the impact of ART on HIV infection in addition to diarrheal illness etc.

-Other factors which lead to uptake of care should be discussed including patient-provider relationships, distance to clinic, severity of illness, stigma etc.

-How many people had SARI in your sample? Helpful to restate the sample size in relation to your comment on statistical power.

-Please reference final statement re: masking impact of ART

23. 3rd paragraph:
As access to free care and hospitalization....” to something along the lines of: Access to free care was available at Lwak Hospital in both the pre- and post-HBCT period. A key difference in motivation may, therefore, have resulted from an increased knowledge of one’s HIV positive status. Indeed, similar increases in attendance were not observed for the HIV-negative group in the pre versus post period.

24. 5th paragraph:
- It would be interesting to know the time to enrollment into care (e.g., time to linkage) or time to ART initiation.

Please reference statement regarding changes in names and addresses (see literature on losses to follow-up and retention).

25. 6th paragraph:
- Which diseases would demonstrate annual variations? Malaria? Please clarify.
- A limitation related to unmeasured confounders and explored variables should be added. More specifically, the implications of not exploring factors which may be more important in explaining findings. For example, factors such as improved continuity of care, early initiation and diagnosis, positive patient provider relationships etc. These factors may explain why or mediate the relationship between HBCT and improved health.

26. Table 1: were significant difference identified between groups (Males, Females or by age group)?

27. Table 4: add sample size for each group

Level of interest: An article of importance in its field

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.