Reviewer’s report

Title: Feasibility of Community Based HIV Self-Screening in South Africa: A Demonstration Project

Version: 0 Date: 30 Aug 2018

Reviewer: Katrina Ortblad

Reviewer's report:

Manuscript: "Feasibility of HIV Self-Screening in South Africa: A mixed methods study"

OVERALL: This paper explores the feasibility of HIV self-screening in two townships in the Gauteng province of South Africa. The paper found HIV self-testing to be feasible and acceptable in diverse populations, including young people, men and female sex workers. The paper also explored the use of supervised versus unsupervised self-screening and found that participants most preferred unsupervised screening. Among participants that were followed-up, linkage to care was low among those who tested HIV-positive. These findings are consistent with other studies that have been published on this topic. While the findings are interesting, the paper lacks clarity and focus. Significant editing could improve the impact of this paper.

MAJOR

* The paper could benefit from significant editing. There is a lot of moving pieces and information, including different populations, different recruitment strategies, different testing methods, different follow-up methods, etc. The paper could be restructured for clarity or a figure demonstrating the flow of participants could also improve clarity.

* The provision of rapid HIV testing following self-screening is confusing. If participants knew they were going to complete a rapid test, then wouldn't this reduce the proportion that opted for self-screening?

* This objectives of this paper could be more clearly outlined and the results/findings could be more clearly linked to these objectives.

MINOR

Abstract

* (Results): Would be helpful to understand how many participants were screened and enrolled - you are presenting results (i.e., those interested and those who received self-screen kits) for those who are not enrolled.

* (Conclusion): Clarify that you measure linkage to care during phone follow-up.

* (Key words): Maybe 'HIV self-screening' instead of 'HIV self-test kits'?
Background
* Page 3, Line 36: Do men face stigma and discrimination from healthcare systems that prevents them from testing? Or are their low testing rates more attributable to other factors?

* Paragraph 1,2: Many of the same ideas (i.e., stigma/discrimination = testing barrier) repeated in these two paragraphs. Suggest editing these paragraphs for clarity.

* Paragraph 3: I think it would be helpful to define HIV self-screening at the beginning on the paragraph instead of towards the end.

* Paragraph 3: "The objective of this study…" - this should be a new paragraph.

Methods
* Paragraph 1: "Thereafter" not needed.

* Paragraph 2: Please revise this sentence to the following: "The eligibility criteria included those who were 18 years or older, had access to a telephone, were willing to provide contact information, were willing to share their HIV status with the study staff, and were residing within…"

* Study setting: "… with a provincial (Gauteng) HIV prevalence…” - this should be its own sentence.

* Study setting: "… and is substantially higher in the 15-49 age group” - compared to what?

* Study setting: Start the list of strategies for recruitment at the beginning of "Mobil HIV testing sites"

* Study procedures: You already covered recruitment above, no need to cover again or merge together in on section.

* HIV self-screening: Confusing to describe presenting participants with the conventional finger prick rapid test option under this sub-section. I would move this to a different sub-section. I think some figure that shows the flow of participants and different testing options available to them would be helpful.

* HIV testing: I don't understand why participant who selected HIV self-screening were than tested with a finger prick. If this was the case, then why would they select self-screening if they were only going to be pricked by a provider later? Again, I think a figure clarifying procedures would be very helpful.

* HIV testing: "The objective of conducting the different tests was also to assess the sensitivity and specificity of the OraQuick…” - While interesting, I feel this is not related to the objectives of this study and belongs in a different paper.
* (Page 7, Line 5): Extra "that" in sentence.

* (Page 7, Lines 37-45): What you mean by "terminated" in these sentences it not clear to me.

Results
* Demographic characteristics: Was it just chance that 50% were male and 50% female? Or was this by design? This isn't clear to me.

* Demographic characteristics: Important to specify the proportion that were FSW.

* Table 1: There is an issue with the font in Table 1 - difficult to read.

* Self-screening HIV results: "Of the participants enrolled in the study" - again, I am getting confused with what you are considering 'enrolled' - the denominator of this population keeps changing.

* Linkage: Of those HIV-1 positive individuals who linked to care, how many of these individuals already knew they were HIV-positive?

* Linkage: Confusing to present the confirmatory HIV rapid test findings (i.e., sensitivity and specificity) under this section. Create a new sub-section or don't include in this paper?

Discussion
* Another limitation appears to be that all participants were asked to complete a rapid test after self-screening? (Not sure if I understood this correctly). If so, then this might have resulted in fewer participants accepting self-screening if they knew they were going to also have to complete a rapid test.

* Please elaborate on why you believe you found low linkage to care in this study and suggest some ways to overcome linkage to care barriers.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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