Reviewer's report

Title: Scaling up combined community-based HIV prevention interventions targeting truck drivers in Morocco: effectiveness on HIV testing and counseling

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Reviewer: Shiva S Halli

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A review of a research paper titled: Scaling up combined community-based HIV prevention interventions targeting truck drivers in Morocco: effectiveness on HIV testing and counselling

1. Is the question posed by the authors well defined? Yes

2. Are the methods appropriate and well described? There could be many other approaches for measuring the intervention impact. The method used in the paper in true sense it is a before–after design. Mathematical models or careful statistical methods are critical to measure the impact of intervention in such a design. Though the before and after samples are considered for testing the effectiveness of intervention, the two samples cannot be considered as control and experimental groups in true sense. It is also not convincing to the readers that the two groups of 2012, one exposed to the intervention and other did not, really are similar. Hence, it is difficult ascertain the impact of intervention without controlling the correlates and confounders. Even if this is a limitation, they should have used both the samples in the context of multivariate analysis. The authors mention about two control groups, but only one control group is used in most of the analysis. I also noticed that in some places important statements are made without providing the data. For instance, “It is important to point out that the prevalence of HIV testing and counselling in those who had not been exposed to the intervention in 2012 (i.e. the control group) was comparable to that in the sample in 2007(i.e. the historical control group)” (line numbers 276-279). Moreover, this statement kind of contradicts the statement that “In the 2012 survey, the great majority of HIV testing had been performed on a voluntary basis (80%) compared with only 60% in the 2007 survey” (line numbers 289 and 290). That means even in 2007, before intervention, 60% them had undergone HIV testing. Similar statements can be observed on line numbers 294-295. I am wondering how come recent five years of duration did not have any impact on HIV testing as stated by authors’ online numbers 276-279.

The authors also make a statement on line numbers 263-264 such that “no significant differences was found among the characteristics presented in Table 1 when comparing participants in the 2007 and 2012 surveys (data not shown)”. I think it is important to present the data. I am also not happy about using P-value of .20 without strong justification (line 249).
My main concern is regarding the rigorousness of data analysis. For example, the authors state on page 12 on line 307-308 that “these results were confirmed even after multiple adjustments for other potential correlates and confounders (Table 2).” I think they are referring to Table 3 not Table 2 here. The percentages in Table 2 are not adjusted for possible correlates and confounders, and hence the differences between the two sets of percentages can be tentative. Basing their discussions and conclusions on these differences are not quite correct.

In my opinion the multivariate analysis should have taken the differences in the two surveys regarding the HIV testing and counselling as dependent variable especially when the differences are there (Figure 1). Another evidence of this can be seen from line numbers 294 and 295. Alternatively, the authors should run two multiple regression equations: one for 2007 and another for 2012. Then they should decompose the mean difference in the dependent variables and demonstrate the effect of interventions on HIV testing and counselling after accounting for other correlates and confounders.

3. Are the data sound? Yes

4. Do the figures appear to be genuine, i.e. without evidence of manipulation? Yes

5. Does the manuscript adhere to the relevant standards for reporting and data deposition? Yes

6. Are the discussion and conclusions well balanced and adequately supported by the data? I do have some concerns regarding the discussion section. Some of the explanations that are provided in the discussion section for the results appears to be contradictory. For instance, the authors argue that those respondents with male sexual partners are receiving the HIV testing and counselling as they may perceive that they are at higher risk. How is it that with repeated education as well as behavioural interventions those respondents who are visiting commercial female sex workers do not perceive themselves at higher risk and thereby do not undergo HIV testing. Similar kind contradictory statements are found in the discussion section.

7. Are limitations of the work clearly stated? To some extent

8. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? Yes

9. Do the title and abstract accurately convey what has been found? To some extent

10. Is the writing acceptable? Can be improved