**Reviewer’s report**

**Title:** Home-based voluntary HIV counselling and testing found highly acceptable and to reduce inequalities

**Version:** 2  **Date:** 25 February 2010

**Reviewer:** Alistair W Stewart

**Reviewer’s report:**

**Major Compulsory Revisions**

This study records a number of measures on over 5000 respondents in Zambia regarding their responses to voluntary HIV counselling. The prime interest is in whether counselling had been used previously and whether it was now acceptable under new conditions. This means that the data are paired (each respondent has both the key measures) but it is not obvious that this aspect of the data has been incorporated in the analyses.

Table 1 reports intention and uptake stratified by age, gender and region but then this is incorrectly analysed as indicated by the reporting in the text. It is inappropriate to select, post hoc, some contrasts and report them. The authors use logistic regression to do some of their analyses so they should use this method for all the analyses. However, conditional logistic regression should be used to incorporate the paired nature of the data. (I see another reviewer has suggested that logistic regression is not necessary for all the analyses. This may be true but a conditional logistic regression analysis is effectively the same as McNemars test and so using the one method through out the paper simplifies the description.)

The data reported in Table 2 also seem to have been analysed in a piecemeal manner, that is, there is selective reporting of significant contrasts. It is not appropriate to do lots of tests and just report the few that are statistically significant; particularly without putting those tests into context. Again a conditional logistic regression should be used to analyse this data.

The reporting in the text based on Table 3 is again not appropriate. The text reports interactions but there is no indication that any interactions have been assessed.

The changes seen are so extreme that I suspect that a paired analysis will come to the same conclusions, however, the authors need to analyse the data correctly.

I encourage the authors to analyse this data again, carefully and correctly, because the message is an important one. I don’t believe the general conclusion will change but some of the details might.
Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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

Declaration of competing interests:

'I declare that I have no competing interests'