Reviewer's report

Title: Reliability of anthropometric measures in a longitudinal cohort of patients initiating ART in West Africa

Version: 2 Date: 14 September 2010

Reviewer: Herculina Salome Kruger

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Re-review: BMC Medical Research Methodology

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

The authors state in the abstract that they describe the reliability and challenges associated with measurement. The challenges were pointed out in the resubmission.

2. Are the methods appropriate and well described?

I am still not convinced that the sample size is not too small and why measurements were done on two consecutive days, rather than on the same day. The sample size was very small especially for waist circumference with only 7 subjects.

The measurement equipment were described in more detail, e.g. model and company of the scale. For this type of study investment should have been made in more reliable calipers, such as Harpenden or Lange skinfold calipers. Calibration of the stadiometer and caliper should have been done.

3. Are the discussion and conclusions well balanced and adequately supported by the data?

More attention could still have been given to the limitations due to the measurement equipment used. The fact that variability was only acceptable for height and weight may have been due to better quality equipment used in the weight and height measurements. The conclusion that only height and weight were sufficiently reliable to be used in future analyses may not be generalisable, but applies to similar study conditions with plastic Slimguide calipers and vinyl tapes.

Level of interest: An article whose findings are important to those with closely related research interests

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

Statistical review: Yes, but I do not feel adequately qualified to assess the
statistics.

Declaration of competing interests:
'I declare that I have no competing interests'