Reviewer’s report

Title: Population and antenatal-based HIV prevalence estimates in a high contracepting female population in rural South Africa

Version: 1 Date: 4 February 2007

Reviewer: Rakhi Dandona

Reviewer's report:

General

The variations in the estimates of HIV prevalence between the antenatal clinics (ANC) sentinel surveillance and population-based surveys have been well established in Africa, and recently in some other countries. Most of the population-based surveys, except for Uganda, have indicated lower HIV estimates as compared to HIV estimates from the ANC sentinel surveillance (please refer to UNAIDS Report 2006).

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The authors have attempted to compare HIV prevalence estimates between the ANC sentinel surveillance and population-based survey within an area of sub-Saharan Africa and explore possible reasons for the differences.

The major issue in this paper is the low rate of HIV testing in the population-based survey (36.6% of the total eligible women and 42.9% of the contacted eligible women). The comparative analysis reported in this paper in the background of a low proportion of women consenting for HIV testing in the population-based survey is a serious limitation of this paper. This limitation has not been adequately addressed in this paper.


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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Methods

1. Paragraph 2 – What is the definition used for resident and non-resident in the population-based HIV survey?

2. Paragraph 2 – Blood was taken from 1,146 women in ANC and this number is shown as 1,111 in Table 1.

Results

3. Paragraph 1 – The repetition of what is shown in Table 1 could be avoided.

4. Paragraph 1 (last statement) and Table 1 – In the clinic accessibility model, accessibility was more comparable between the ANC sentinel surveillance and all women and pregnant women eligible for population based HIV testing than with all women in the population reporting pregnancy ever. Please clarify.

5. Paragraph 2, line 5 – 12,351 should read 14,476.

6. Table 2 –
   a. Please provide sample size for the age categories of both variables from the total eligible women (14,476).
b. Among the contacted women, please mention if there was a significant difference between those who consented to the test and those who did not. The proportion of women who consented for test was lower in 25-34 years age category, and they had a higher HIV prevalence as compared with the other age groups.

Discretionary Revisions (which the author can choose to ignore)

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests