

Reviewer's report

Title: Modelling the public health impact of male circumcision for HIV prevention in high prevalence areas in Africa

Version: 4 **Date:** 1 February 2007

Reviewer: Alain-Jacques Valleron

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General

There are important changes in the revised version which is much easier to read than the former one. However, I am not quite convinced about the way the authors respond to my previous remark about the need not only to quote, but also to discuss, the PLOS paper from Williams which was obviously published after they completed their work. I understand well that this is a quite uncomfortable situation.

In the present version, the authors quote Williams in the intro (as suggested), but they do not discuss nor compare their results with those of Williams. Moreover, they indicate that "the authors (i.e. Williams) recognize that heterogeneity in sexual activity is key to any HIV transmission model". I did not notice this statement in the paper from Williams. At contrary, I understood that these authors claimed that their indirect treatment of the problem of heterogeneity was quite satisfactory for their purpose (see 2nd para of results in Williams et al., PLOS, 2006). In any case, I would suggest to do not write that "they do not adequately incorporate this heterogeneity into their model" (1 line before and of page 6 in the revised MS? Nor I would leave "it is less satisfactory for predicting events... (3rd line of page 7). Unless, of course, an evidence is given for these statements.

In the present work, the prevalences should be compared in the discussion to those from Williams, and differences or agreements must be emphasized. Mortality and Incidence were not assessed in this work, and the comparison cannot therefore be done.

Finally, by comparison with the PLOS paper, one originality of the present work is to use two different models. At the end of the intro, the authors are right to insist on this specificity "only findings consistent between our two models... are probably robust". However, I did not see where these comparisons were shown in their text, and which conclusion, were divergent in the 2 models. (e.g. fig 2 uses the random ruining model, fig 3 and 4 the "compartmental model", but nowhere there is a visible comparison between the 2 models.

Minor comment : Figure 3: the 4th analysis of sensitivity (d) is not described in the legend. And (a), (b), (c), (d) are not indicated on the figure (e.g. DISINHIB instead of (c) or reversely.

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

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

Discretionary Revisions (which the author can choose to ignore)