Reviewer’s report

Title: A systematic review of heterosexual anal intercourse and its potential role in Papua New Guinea’s HIV epidemic

Version: 1 Date: 24 June 2013

Reviewer: Jan M Risser

Reviewer’s report:

Major Compulsory Revisions

1. The paper is too long and somewhat unfocused. The background is extensive and interesting – but given the well-written background, I am confused about the purpose of the paper. The information from papers identified through the systematic review could easily be incorporated into the background, perhaps under a subheading for PNG-specific research findings. The systematic review portion of the paper is weak – given that 500 studies were found and 13 were reviewed in this manuscript, and no summary statistic was possible. Of more interest are the ‘appropriate values’ that were entered into the transmission probability equation. I would need more information about the equation (is the (1) by the equation the reference – or just an indication that this is equation number 1). Completing the required information in this equation required many assumptions which are not clearly described in the paper.

2. Figure 1 is not necessary and could easily be summarized in several sentences.

3. I do not see the importance of Table 1.

4. Table 2 presumably provides information that utilized in the transmission probability calculations – the extrapolation of these data to the equation needs to be explained - more than the footnotes in Table 4.

5. Table 3 could be summarized in a few sentences.

6. Under “Risk Equation Analysis” the authors state “Using the representative values in Table 4” – but there is inadequate information about how these values were estimated or extrapolated – and I believe that the methods used to populate the formula should be the primary focus of the paper – not footnotes in the table.

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

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.