Reviewer’s report

Title: A systematic review of heterosexual anal intercourse and its role in the transmission of HIV and other sexually transmitted infections in Papua New Guinea

Version: 3 Date: 21 October 2013

Reviewer: Jan M Risser

Reviewer’s report:

Background:
I find the background too long and the writing lacks concision. There is redundancy that could be fixed.

First paragraph
• 7 lines down – HAI used before defined – definition comes in next paragraph. Fix.
• I would like a reference for the first sentence in the second paragraph – ‘…synonymous with vaginal intercourse.’

First paragraph under ‘Heterosexual Anal Intercourse: A Global Perspective
• In first sentence – change ‘has’ to ‘have’ – …HAI in general and unprotected HAI specifically have received… Somewhat awkward comma usage in this sentence.
• Remove ‘that’ after USA in third sentence. …a number of studies from the USA report on HAI…
• In the middle of this paragraph – remove ‘reporting’ after the common …20% of American women were at high risk of HIV, having had HAI with…
• Misplaced ‘respectively’ in last sentence: …with 47% and 61% of such women respectively doing so in the preceding two months.

Paragraph beginning ‘Despite the prevalence of and increased risk of HAI…
• remove ‘unanimously’ – and rephrase as: …condom use for vaginal intercourse is higher than for HAI in several studies.
• Change sentence starting ‘New York women… to In a study of women in New York, the women…’

Under HIV and Heterosexual Anal Intercourse: Papua New Guinea
• Last sentence – first paragraph – change ‘16.9% had HIV’ to ‘16.9% were infected with HIV’ and clarify if this is self-report or tested.

The paragraph beginning ‘Despite anal sex between men being deeply imbued…
• there needs to be references for these statements –

No information on two of the three purposes is presented in the introduction.
Although I think the introduction is too long already – I would also like some information about the risk equation – when and where has it been used before, who has used it and what did they find – and a bit more information about why you also want to include public health policy and programming. What is the motivation for including the third purpose?

Under Methods – there are a few grammatical and syntax errors that should be fixed

• Change: For those that were not available electronically on-line they were obtained…

To: Those that were not available electronically on-line were obtained…

Under ‘Data extraction and data analysis’ -

• in the first sentence, change was to were – ‘data… were extracted’

• Also – use appropriate primary and secondary parentheses.

In paragraph that includes the formula –

• there are two spellings for behavior – (behavior and behaviors)

• What is ‘onward transmission’ – this is a phrase I am not familiar with

• Describe the other limitation

In the paragraph after the formula –

• You state that the assumptions for estimating parameter values ‘broadly reflect the behavioral and epidemiological characteristics of the PNG population’ – provide references or further information about this.

Results –

• Although PRISM suggests figure 1 – the information contained in that figure could be discussed in several sentences. I find the figure unnecessary.

• Table 1 and Table 2 could be combined (as suggested previously) – The information about region and province in Table 1 could be stated in several sentences and the information about population in Table 1 is already repeated in Table 2.

The paragraph after ‘Insert Tables 1 and 2 here’

• The information within parentheses is poorly worded

In general – a lot of information presented in the results should be in the discussion.

Discussion

First paragraph:

• Change ‘goes someway’ to ‘helps’ and highlighting to highlights. This systematic review helps to highlight the complexity…

• I do not know the meaning of the sentence: ‘However, key limitations emerged from this systematic review (including publications that were excluded).’
**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:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.