Reviewer’s report

Title: HIV Risk and Associations of HIV Infection among men who have sex with men in Peri-Urban Cape Town, South Africa

Version: 2 Date: 14 April 2011

Reviewer: Rachel Jewkes

Reviewer’s report:

Review of submission to BMC on MSM and HIV in Cape Town

Thank you very much for asking me to review again this paper. A number of suggested improvements have been made by the authors need to make further changes before this could be published. This paper really would benefit from an epidemiologist as part of the drafting team. It has a myriad of little errors and some rather large ones that would have been corrected by an epidemiologist. I strongly suggest that the authors get the next draft of the paper checked.

Abstract: the results presented here are incorrect and there are a number of words missing.

I would suggest including the statistic of 0% consistent condom and water based lubricant use in the abstract

Conclusions: I would suggest that these be redrafted to fit the study findings. The last sentence is very general and does not speak to the specific findings of this paper. I don’t believe the authors can say that HIV prevalence will continue to rise among MSM – it seem likely given the level of risk taking – perhaps the sentence could be tempered

Introduction: Changes are needed to the second paragraph

Line 9 – please revise this sentence to read “among these men, HIV positivity was associated with men reporting same sex practices aOR 3.6 etc…”

Line 13 – what is meant by ‘adjusted HIV prevalence” – adjusted for what?

Line 14 – please rephrase this in the same style suggested for line 9

Line 18 – delete ‘overall’

Line 21 – change ‘significantly predictive” to “associated with”

First sentence of para 4 – this isn’t very scientific – what is ‘multiple times higher’? – there is a bit of mixing of citations of prevalences from different age groups etc – the <10% is for the general population over age 2 and its not comparable with any of the prevalences cited that are not from this age group

I think this introduction shows the problem with the notion of ‘prevalence’ when used in this type of research. There isn’t one study cited where a true population prevalence has been derived. All of the samples are volunteer, snowball,
over-represent Whites or have some other design feature which makes it impossible to properly compare the proportion HIV+ between them. The way this is done is very unsatisfactory and I want to suggest that the authors revise the introduction again. I would like to suggest that the first address the issue of proportion HIV+ in different MSM study samples and devote one para to this showing the range and commenting that because of the methodological issues between studies these are essentially non-compariable and are NOT population prevalences. Then I would suggest devoting a paragraph to what has been found associated with HIV in these studies.

Please note that the discussion around reference [6] needs to be differently handled as it’s the association between MSM and HIV – this statistic isn’t available from other studies as they are just “about MSM”

Methods

Questionnaire – there is not enough information about what was actually asked and where the questions come from. E.g. did you ask about “transactional sex” if so do you have any idea what men made of the question? Its important for interpretation of findings to know that they were standard measures, we cannot just assume that because the questions have been asked in many countries that they are good questions and valid.

Statistical analysis – this is not correct. It doesn’t include enough detail about what was done. What were the candidate variables for the multivariable models? Why was the p value set at 0.1 for backwards elimination, please reference this. 0.2 is more commonly used. There are a range of things included in this section which do not appear to match the research.

Results

Please report table 1 with columns for HIV+ and HIV-

Under sexual practices – what is 0.49 in the second sentence – is this the mean number of female partners? How many had any? What does the p value refer to?

Condom use – how were the 52.4% and 39.5% proportions derived? What was the denominator?

Bisexual practices – please delete ‘in bivariate analyses’ from the fourth line of this paragraph.

The multivariable model is inappropriate here as what it models is ‘factors associated with being bisexual’ – it’s a putatively causal model. If you want to know whether condoms or disclose or HIV etc are associated with bisexuality after adjusting for the social and demographic variables you need to build models of bisexual practices that have the one risk behaviour (or HIV) of interest and the social demographic variables.

You must do this separately for each riskbehaviour/HIV.

HIV prevalence – line five – what do you mean?
Associations with HIV infection – Please could you separate you list into those variables that were associated with a greater likelihood of having HIV and those that were associated with a lower one. As the ORs are shown in table 2 its not necessary to state them all in the text.

Please revise table 2 to put the social and demographic characteristics at the top.

I think the bivariable OR for not wearing condoms is incorrect – please check – it looks like it should be a protective factor

Last para please delete ‘data not shown ‘ because you are showing the data!

Discussion – this needs extensive revisions

Page 8 – you have not presented data to allow a reader to reach the conclusion of your second sentence. I strongly advise you not to get into a lengthy discussion of prevalence when what you have is a convenience sample and one that is non-comparable with any other data source in age and race distribution.

The main findings of this paper are factors associated with having HIV and this should be the focus of the discussion.

Rates of bisexuality from this study are non-comparable for the same reasons that the HIV+ % is non-comparable. Please focus on associations which are all that is potentially comparable given your data source

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

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests'