Reviewer’s report

Title: Association of HIV infection with distribution and viral load of HPV types in Kenya: a survey with 820 female sex workers

Version: 1 Date: 1 November 2009

Reviewer: Claire Vajdic

Reviewer’s report:

This is a very well-designed and thorough study. The results are appropriately presented, with age adjustment where necessary, and the findings are elegantly interpreted. The manuscript is clear and well written. As a result, no major revisions are recommended.

Major compulsory revisions

Abstract
I recommend adding the years of the study, the median age of the participants, and adding the qualification ‘cross-sectional’ to the methods section.

Methods
Do the authors have any data from the field with which to judge the representativeness of their study population, even if only with respect to the age distribution?

Results
Please check the data given in the first sentence of the section headed ‘Prevalence of HPV infection’. Do you mean that in 786 women the samples were of sufficient quality for cytology and in 789 women they were of sufficient quality for HPV testing?

Minor essential revisions

Background.
HPV is causally associated with anogenital and oropharyngeal cancers (see Bouvard V et al Lancet Oncology 2009)

Results.
For the final paragraph of the ‘Prevalence of HPV infection’ sub-section, I would recommend making the qualification ‘Having one or more children…’.

In the subsection ‘Effect of HIV status on prevalence of specific high-risk HPV types’, does stepwise mean that you tested for a linear trend and it was significant? If that is the case, perhaps it should be described as a linear decrease?
Was HPV subtyping performed on the squamous cell carcinoma?

Discussion.

Please clarify whether the cited studies #27 and #28 included FSW.

Page 10. I would suggest moving the sentence about the study of family planning clinic attendees in Kenya one sentence up, so that the commentary about this study is continuous.

In that same paragraph, it might be helpful to emphasise the study population. For example, replace ‘in this context’ with ‘in the context of FSW’.

The authors might like to speculate why they found a significant association with one or more children. Could it be that childbirth makes the cervix more susceptible to HPV/HIV infection, or that it is an indirect measure of sexual activity prior to FSW, or are women with children more likely to engage in risky sexual behavior with clients so they can feed their children? The increase in the OR after adjustment for condom use with clients and the apparent independent effect suggests the latter may not be important. Has any other study noted this before, in FSW or women in general?

**Level of interest:** An article of importance in its field

**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.