Reviewer's report

Title: Cervical human papillomavirus infection among young women engaged in sex work in Phnom Penh, Cambodia: prevalence, genotypes, risk factors and association with HIV infection

Version: 2 Date: 24 June 2012

Reviewer: Brandon Brown

Reviewer's report:

Well done.

Integrate all or at least part of your response to the reviewers in the paper, apart from responding in correspondence, so that the paper stands alone. I have pasted the most pertinent questions and your correspondence responses below that you did not include in the paper.

4. HPV quadrivalent vaccine is approved in the US for women 9-26 years of age. Were women 26-29 given vaccine in this study, and are the regulations different in Cambodia? Cervarix in the US is given to women 9-25 years. The vaccine is not licensed in the US for women older than 26 years, and the CDC says its safety has not been proven among women older than 26. Justify avoidance of discrimination vs safety, or perhaps the age rules in Cambodia are different?

We also vaccinated older women (26-29) with the HPV quadrivalent vaccine to avoid discrimination. The FDA’s recommended age guidelines are largely based on cost-effectiveness analysis, and not on safety. To our knowledge, there is no express limitation on their receipt of the vaccine, and older women who have not already been exposed to all four strains may gain some benefit from the quadrivalent vaccine.

5. All women negative for HIV were given vaccine, but you also recruited HIV positive participants correct?

We recruited women regardless of HIV status into the study. However, only those who were antibody-negative for HIV (and not pregnant) were offered the HPV quadrivalent vaccine.

8. Please give more details on the HPV testing. What subtypes were detectable.

MY-09/MY-11 L1 consensus primer PCR was performed as described previously (Palefsky, JNCI, 1999; Strickler, JNCI, 2003). This is a well-validated system that has been used for over 10 years to test women participating in the Women’s Interagency HIV Study and many other cohorts around the U.S. and internationally. Beta-globin primers were used as an internal positive control for the presence of human DNA. Samples were dot-blotted and probed for HPV DNA using a chemiluminescent procedure with a consensus probe mixture. Samples that are determined to be consensus-probe positive were probed for the
presence of 29 individual HPV types, as well as a mixture of 10 less common HPV types. Samples were classified as HPV-positive or HPV-negative based on the results with the consensus probe. If a sample was consensus probe-positive but negative for all 39 HPV types, it was considered to have an unknown HPV type. Samples that were negative for beta-globin DNA were excluded from analysis.

5. A limitation might be that you don’t have any cervical screening data to pair with these HPV results, to see if the most prevalent types are associated with cancer precursors. Women were referred to a local collaborating physician at Maternal and Child Hospital for free PAP cytology testing, and treatment was provided as indicated. However, results from the Pap tests were not available for this study.

Level of interest: An article of outstanding merit and interest 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’