Reviewer’s report

Title: Human papillomavirus infection among young women engaged in sex work in Phnom Penh, Cambodia: prevalence, genotypes and risk factors

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Reviewer: Federico De Marco

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This manuscript is a cross-sectional epidemiological study on the prevalence of genital HPV infection and types in young women living in Cambodia. The authors describe a large case series of subjects who have been practicing transactional sex. Data on HIV status and drugs use/abuse among patients are also reported. Working with prostitutes extend the validity of results beyond the actual of 220 subject assayed as these people are indirectly representative of HPV circulation among the much larger customer population (this fact has not been remarked in the text). Thus the information is new and relevant since HPV prevalence rates in Cambodia have not been previously presented and they appear to be different from those expected on the basis of global HPV circulation. However, the paper need a few modifications in order to be published.

Here is following a point by point list of remarks.

• Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached) None.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct).

1) As described in the section “methods” the HPV detection and typing was achieved by general primer PCR followed by specific probe hybridization and references n 21 (Palefsky et al 1999) was cited for technical details. Nonetheless neither sequences nor references are given for type specific probes, leaving the point of typing unresolved. A list of sequences used, or at least a clarifying reference for each of them is to be included for the adequate evaluation of results and conclusions as well as for the convenient dissemination of the expertise described.

2) HPV prevalences in Cambodian prostitutes are discussed in comparison with those obtained from prostitutes cohorts in Philippines; Viet-Nam; Thailand; Senegal and Bulgaria and the reported variation attributed to differences in HPV assay, FWS population and sampling. No mention was done on patients’ age and climate. Considering the very low mean age of enrolled population and that a young age is believed to have a relevant impact on HPV infection the mean ages of patients in cited papers should be reported whenever available and discussed. As far as climate, in addition to those from unrelated countries such as Senegal and Bulgaria, literature data from non South-Est Asia “mediterranean countries”
should be cited and commented (as for instance those from Tunisian prostitutes published on J. Med. Virol.78:950–953, 2006).

3) Discussion appears to be too long and speculative. Authors should focus on the paucity of data from their region and on their specific features avoiding lengthy discussion about pathological implication of HIV/HPV interplay as well as multiple infections, as no experimental contribution shedding light on their mechanisms is provided.

4) In the present version the absolute number of enrolled patients (i.e.: 220) is reported just in the abstract and in table 1. Thus the results are somewhat hard to be read and difficult to figure out. For the sake of clarity the number of enrolled patients should be openly stated in the section “results” too. Accordingly the actual number patients in each subgroup should given in addition to its percentage. e.g.: HPV positive 41.1% (90 patients). HPV 51 and 70 were the most common (5.0%, 22 patients) ... as authors did for the number of patients suffering from multiple infections ( see the results at lines 6-8).

5) Figure 1 is difficult to be read in its present form. Arranging type specific column bars in decreasing prevalence order (namely 51;16; 52;53, …) would probably give a clear idea of HPV types prevalence at first glance, making the paper core message much easier to grasp.

6) A few spelling and grammar errors must be corrected with the help of an English mother-tongue scientist.

Results, line 14: the word “sector” has been typed twice.

Discussion line 65 “women working as freelance FSW or in brothels were…” it is not clear if brothel are still in use despite current laws or if authors wanted to refer to women which had been working in brothels up to recent years.

• Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

Wrong expression such as “numbers of sex partners”, “age at first sex”, new sex partners” should be replaced by the correct ones namely: “numbers of sexual partners, age at first sexual intercourse, new sexual partners”. Although largely used in spoken language the above colloquial expressions may largely reduce the efficacy of scientific communications.

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

**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 I have no competing interests