Reviewer's report

Title: An epidemiological study assessing the prevalence of human papillomavirus types in women in the Kingdom of Bahrain

Version: 4
Date: 17 July 2014
Reviewer: Rachel Hanisch

Reviewer's report:

**Major Compulsory Revisions**

1. (Overall) The authors provide a nice summary of the prevalence of HPV among a select population of women living in Bahrain. However, from the authors' description of the population surveyed, this very select study population is not representative of all women living in Bahrain, and therefore the HPV information obtained from this population cannot be highly generalized, limiting the impact of this work. Specifically, women selected for inclusion in this study were those who had the resources to attend health care services (i.e. mostly native Bahraini), had normal cytology results, a portion were post-natal, and were all married. Over half of the current Bahraini population is estimated to be non-native immigrants who probably have a vastly different socio-demographic and health care access profile than their Bahraini female peers. In the current study population, only 18% reports being non-Bahraini, and probably represents a unique sub-sample of all female immigrants in the country. This fact needs to be addressed before these results can be interpreted further, and to me seems to be the largest gap in this work. In fact, I think a more interesting and higher impact analysis of this work, could stem from the differences in health care access and HPV prevalence between Bahraini and non-Bahraini women.

2. (Overall) In addition, it seems slightly illogical to ask about HPV knowledge questions to a population of women attending routine cervical screening services (if this information was intended to represent women’s HPV knowledge on a national level). The authors themselves state that only a very selection portion of the population is aware of these health services. Is there not a more generalizable population of women that could be used for this purpose?

**Minor Essential Revisions**


2. (Background) There seems to be some disconnect that CC is the fourth most common cancer, incidence of 4 per 100,000 among 209,616 women and it causes approx. 16 deaths per year. Is the female population estimate accurate?

3. (Methods) Please state which HPV types you classified as HR and LR for the
LipPA25 test

4. (Methods) Why were unmarried women excluded? This needs to be addressed somewhere. Did the authors decide on this, or is there some stigma preventing unmarried women from attending these health screening services (i.e. is it assumed that there is no need for them to attend)?

5. (Methods) Why were women with abnormal cytology excluded?

Discretionary Revisions

1. (Discussion) Again, a more detailed description of exactly who is and who is not included in this study population needs to be given
2. (Discussion) How are the hospitals/clinics representative of Bahrain, as stated?
3. (Discussion) How was it determined that women included in this study had not already received the HPV vaccine?

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

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I have no competing interests to declare.