Reviewer's report

Title: Prevalence of high-risk HPV types and associated genital diseases in women born in 1988/89 or 1983/84 - results of WOLVES, a population-based epidemiological study in Wolfsburg, Germany

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Reviewer: Mario Sideri

Reviewer's report:

The study provides some information on the epidemiology of HPV infection prior to the introduction of vaccination in Germany. In specific the data are of interest, but the paper should undergo some revisions. Some of the tables are redundant; some of the data are not discussed or irrelevant to the body paper and should be removed. The aim of the study is not clearly posed. Is the study a comparison of HPV types distribution in two different age groups or are the authors investigating the changes of HPV types in different secular cohorts? In other words, are they comparing HPV infection in younger and older women or the dynamics HPV distribution at different years? This point is of crucial interest as in one perspective the data can be generalized and interpreted as age related trends, while form the other perspective the data monitor the epidemiology of HPV infection in a specific area. Finally the data are too scanty to monitor the effect of vaccination on HPV infection. There no data on vaccine type, the age of the women at vaccination time, the pre-vaccination sexual history of the vaccinated and not vaccinated groups, etc.

Major:

Abstract: the years of data collection should be mentioned

Methods: the data on colposcopy can be omitted and be part of an additional paper

Methods: please define how are handled multiple HPV infection; in addition the HPV infection can be categorized by phylogeny groupings, reducing data dispersion.

Methods: the use of HC2 as primary HPV test does not allow an in depth evaluation of HPV epidemiology, as the analytical sensitivity of the test is set to identify an high copy number, namely to detect clinically relevant infections. So the first selection of the HPV positive women is set at an high level, leaving many HPV infections with low copy number undetected. On the other hand the genotyping test used (INNO-LiPA) is very sensitive, so it is ideally suited to evaluate HPV status in the population, in particular multiple type HPV infections. This methodological feature of the study should be mentioned to set the data in the proper perspective.

Level of interest: An article whose findings are important to those with closely
related research interests

**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'