Reviewer's report

Title: The use of reimbursement data for timely monitoring of vaccination coverage: the example of human papillomavirus vaccine following public concerns about vaccine safety

Version: 2
Date: 15 April 2015

Reviewer: Sara Boccalini

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The study analyses a new rapid tool (reimbursement database) for monitor HPV vaccination coverage in female adolescents in France, especially related to negative public concerns about vaccination safety. The paper results well written but not enough detailed. In addition, the data on vaccination coverage by reimbursement database, although limited, are well descripted. However, the correlation between vaccination coverage and public concerns (objective of the study) is not sufficiently stressed and proved both in result and discussion chapter. Lastly, the use of reimbursement data for monitoring vaccination coverage should be previously evaluated on vaccination coverage routinely monitored (for example, paediatric immunizations).

Major Compulsory revisions:

1) Are the PSB and the General Health Insurance Scheme representative of all French population? Authors should prove further this aspect. In addition, two other schemes were integrate in the PBS during the period analysis: are they similar to General Health Insurance Scheme and representative? Please, specify further. Could that create possible bias in the analysis of data?

2) In the study data related to HPV vaccines purchased were extracted since 2007. Why? As a matter of fact, the first girl cohort analysed in the study (1995) was 12 year old in 2007 and that cohort should not be vaccinated.

3) In the results chapter, authors show simply the coverage data collect with reimbursement database, without no correlation with the specific public concerns arose in French in the same period. If this was the objective of the study, that aspect should be more stressed and discussed. Idem in the discussion part.

4) The authors did not investigate other possible factors influencing the vaccination coverage. Could that factors be also collected by the reimbursement database?

5) If the authors' hypothesis is right (lowering of vaccine coverage by reimbursement database following the articles published in summer 2011), in October 2011 (publication of a statement by High Council for Public Health) we should observe an increase of vaccination coverage and on the contrary in autumn 2013 (decision of Regional Commission for compensation for medical accident) we should observe a reduction of vaccination coverage. This trend did not happened. Why? How can you explain it? In addition, the vaccination
coverage increased between the 16 and 17 years-age cohorts though a limited catch up: the negative impact of public concerns should be evident also in that aspect.

6) Lastly, new relevant actions promoting HPV vaccination are in progress in 2015 in France: the impact of this favourable interventions should be also evaluated on the HPV vaccination coverage collected by reimbursement database. In the same way the enlargement of vaccination age (from 11 to 11-14 years) and the reduction of doses number should be result in increase of vaccination coverage during the 1st and the 2nd of half-years in 2014 (not yet available).

7) The references should be improved and also translate in English.

**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 declare that I have no competing interests