Reviewer’s report

Title: Evidence of effective delivery of the human papillomavirus (HPV) vaccine through a publicly funded, school-based program: The Ontario Grade 8 HPV Vaccine Cohort Study

Version: 1 Date: 21 June 2014

Reviewer: Christine Campbell

Reviewer’s report:

Thanks for the opportunity to review this manuscript that deals with the interesting topic of delivery of the full three-dose HPV vaccine using a school-based approach. The study is set in Ontario, Canada, and utilises data linkage of a database of Ontario immunization records with a population registry of insured persons in Ontario to examine completeness of three dose vaccination schedule, uptake in different years, and delivery of doses that was compliant with manufacturer’s recommendations. Data is available on 21/36 health units in Ontario. Approximately 50% of eligible girls in these 21 health units participated in the vaccine programme and data on only these girls is reported in this manuscript. This descriptive paper would add to the literature that describes HPV vaccine compliance in publicly funded, school-based programmes.

Major compulsory revisions

1. Data is available on only 21 health units in Ontario, out of a possible 36. Please provide details of how these 21 included areas (40% of eligible girls in Ontario) contrast with the 15 health units not included (the remaining 60%). How representative are the 40%? Ontario is a vast province - geographically where are the 21 units located? Are there differences between included and non-included health units in terms of socio-economics, geographical distance to deliver vaccine supplies, cultural composition, or urban/rural/remote characteristics etc. that would allow a better understanding of the included population?

2. Please provide information on how health units relate to school areas/educational regions in Ontario. Given the HPV vaccine does were delivered through schools, it would be useful to know if possible whether the factors related to lower levels of compliance with the timing of doses, or differences in uptake, were related to school regions.

3. Demographic data is used to describe baseline characteristics of the girls who were vaccinated, but are not used to illuminate which of these demographic factors - if any - are associated with high coverage and compliance with dosing timing.

4. The discussion would benefit from including mention of and reflection on a recent paper reporting HPV vaccine uptake rates in Scotland, reporting figures from both the school-based programme and the catch up cohort. Data are

Minor essential revisions
1. Please provide further details of the approvals required to link databases of patient-sensitive data. Although ethics approvals were obtained from Queen’s University Health Sciences Ethics Board and Sunnybrook Health Sciences Centre’s Ethics Review Board, what approvals were in place to cover linkage of the databases?

Discretionary revisions
1. It would be a far stronger paper if the authors made use of the demographic data they have available to describe the approx. 50% of girls within their study sample who did NOT initiate HPV vaccination during the study period, and compare their characteristics with those of the HPV vaccine cohort. Maybe this is another paper, but it would be good to have a better understanding of which girls are taking up the vaccine and which are not.
2. The authors have raised an issue of some importance (a concern that timely delivery of three dose HPV vaccine has decreased over time, particularly in a year where there are competing vaccination schedules). Clearer recommendations could be provided as to potential approaches to deal with this. This could include research and policy recommendations to better understand and to strengthen the processes that impact timely delivery.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests