Reviewer's report

Title: Factors influencing uptake and adherence of the quadrivalent human papillomavirus vaccine in an Ontario cohort of Grade 8 girls

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Reviewer: Sue Goldie

Reviewer's report:

Thank you for the opportunity to review this manuscript. The paper describes factors associated with HPV vaccine initiation and dose completion in a cohort of Ontario girls. This is a well-written manuscript that makes use of a unique dataset that can link HPV vaccination behavior to receipt of other health care services, including other vaccines. The data distinguish this paper from many others that rely on self-report data to identify correlates of HPV vaccine coverage. However, it would be helpful to include a set of clearly stated hypotheses that drive the analysis of correlates of vaccination.

More detailed comments, organized by section, follow, and would all fall into the category of minor essential or discretionary revisions:

Introduction
1 The authors note that higher HPV vaccine coverage is more cost-effective. Explain why, in what contexts, and in comparison to which other strategies.
2 Briefly describe the sociodemographics and health care utilization of those living in KFL&A. Why is this a relevant region for study, and to which other areas might the findings be generalizable (or not)?
3 What are the study hypotheses / research questions? Which factors would be expected to be associated with HPV vaccine initiation and completion in this region and why? Specifically, since this dataset allows for identification of health conditions and health care utilization, which of these were authors expecting to be associated with HPV vaccination and why?

Methods
4 The term “non-adherers” suggests that those who have not completed the 3 dose vaccine series do not intend to do so. Please clarify how one can assess from the data if sufficient time has elapsed for completion of all three doses. Since some proportion of non-adherers have not yet had a chance to complete the series, another label for this group might be more appropriate.
5 Other than their availability in the dataset, why were the covariates listed included?

Results
6 This section is clearly written. Authors may wish to remind readers of the meaning of the income quintiles described in the text.
Discussion
7 HPV vaccine coverage was lower in this region than in other regions, but not truly “low,” as the authors write.
8 Please describe the “advertising black out” for those unfamiliar with the media conditions in Ontario prior to HPV vaccine introduction.
9 What is “validated exposure” data?
10 Results related to health conditions are not mentioned in the Discussion. What did the authors expect to find and how did findings compare to these expectations?
11 What is the unique contribution of this paper to the large literature on correlates of HPV vaccination? (There are many more studies from the US that are not cited here.)
12 The limitations section appropriately mentions the absence of data on why vaccine coverage is lower among girls in this region.
13 The conclusions could be more specific about the factors associated with vaccine initiation and completion.

Level of interest: An article of outstanding merit and interest in its field

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.