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Title	Cervical cancer screening among women living with HIV: a cross-sectional study using the baseline questionnaire data from the Canadian HIV Women's Sexual and Reproductive Health Cohort Study (CHIWOS)
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Reviewer 1	Keyna Bracken
Institution	Department of Family Medicine, McMaster University, Hamilton, Ont.
General comments (author response in bold)	A good study. In the discussion, I would like to see an additional line added after you mention self sampling as one way to potentially improve cervical sampling rates commenting on the current availability and evidence behind self sampling. I know there has been work mailing self sampling kits to women which may work well in this population. **We fully agree with the reviewer and added a line specifying the benefit for harder to reach women, supported by multiple references (p.13).** I also think it worth expanding the discussion about why BC with its HIV clinic within BC Women's more effectively reaches the screening guidelines. To me this is representative of 'one stop shopping' whereas the fragmentation of HIV care from primary care , just as with other conditions, leads to situations where the primary care physician feels out of the loop of care and assumes this is being taken care of. Effective communication between HIV care providers and resources allowing HIV care to remain with their PCP such as with other chronic medical conditions, would go along way. **Yes, we agree with the reviewer and modified our interpretation section accordingly (p.12).**
Reviewer 2	Céline Bouchard
Institution	Centre Médical Santé Femme, Québec, Que.
General comments (author response in bold)	The subject is of good value and the goal is laudable to verify that Canadian women with HIV are adequately followed for cervical cancer screening and to check the factors that influence the attendance at screening. However, I have some remarks on the definition of the interval: Current HIV treatment guidelines recommend biannual cervical cytology screening following women's initial HIV diagnosis. If both tests are normal, screening can be reduced to an annual schedule (Fletcher FE et al). According to the definition of the schedule, "yearly" means between 12 and < 24 months interval. You are using a definition of <12 months which does not meet the recommended standards. Please comment. **As mentioned above, our reading of cervical cancer screening guidelines differs from that of Reviewer 2. All the guidelines on cervical cancer screening in women living with HIV that we know refer to "annual" or "yearly" screening, meaning every 12 months (https://aidsinfo.nih.gov/guidelines/html/4/adult-and-adolescent-opportunistic-infection/343/hpv , https://www.inspq.qc.ca/pdf/publications/1279_LignesDirectDepistCancerColUterin.pdf , https://archive.cancercare.on.ca/pcs/screening/cervscreening/screening_guidelines/ , http://www.bccancer.bc.ca/screening/Documents/CCSP_GuidelinesManual-CervicalCancerScreeningPolicyChangeReferenceGuide.pdf).** **Therefore, strict adherence to the guideline would result in women reporting their last Pap test within 12 months of their interview date.** **Nevertheless, we recognise that the category "1-3 years" is broad and would combine delays that would not be perceived as clinically significant (e.g., 14 months) with delays that would be more concerning (e.g., 30 months). We acknowledge this potential misclassification as a limitation in our Discussion. To mitigate this potential for bias, we conducted the analyses with a three-category outcome including an undeniable delay in screening (>=3 years since the last Pap test), and focused our interpretation of findings on associations with these very long delays. We selected this validated question came from the Canadian Community Health Survey and this is why it was worded this way.** The question (when was the last time you had a Pap test) does not meet the interval definition but the definition of the date of the last pap test. If a woman said that her pap test was done less than 12 months ago, she entered in the "no delay" category and thus joined the reference category. There is no knowledge about the date of the previous test: interval by definition requires evaluation of the time elapsed between 2 documented events. For example, the reference category may have included a woman confirming that her last Pap test was done 8 months ago but the previous one could have been performed 5 years ago. Please comment since the analysis based on this type of information can be inadequate. **Regrettably, neither the date of the last Pap test, nor the date of the one before that, were measured; therefore, we cannot calculate an interval between two tests. This is why our primary outcome only refers to "delay since the last Pap test", which respects the original wording of the validated question from the Canadian Community Health Survey. We considered that if the current delay since the last Pap test is greater than the recommended 12-month interval, there is a clear "current delay" in cervical cancer screening, which was the focus of our investigation.** In summary, in your study, the interval is not defined adequately and the group used as reference does not correspond to the definition of "yearly screening" which leads to a significant bias in your results. The "yearly" group corresponding to the currently accepted recommendation is included in group 1 to 3 years, categorized as "moderate delay". As a result, since the questionnaire is not accurate enough to evaluate the "yearly" group, your results cannot be modified. Your discussion should be adapted according to this significant bias. **We believe that we have adequately responded to this concern in our above responses.** Lines 205 to 210: this is a repetition of your results and should be removed from the interpretation section or re-commented. **The reviewer is correct, these lines are a repetition of our results, but we kept them as it is a CMAJ Open requirement: "6. Interpretation: This section should include four parts: a. Brief summary of the main results of the study (one paragraph)" and this is also the recommended format by the International Committee of Journal Editors (ICJE).**
Reviewer 3	Richard Birtwhistle
Institution	Department of Family Medicine and Public Health Sciences, Queen's University, Kingston, Ont.
General comments (author response in bold)	This study was the baseline analysis of interview survey data of women with HIV who agreed to be part of the Canadian HIV Women's and Sexual Health Cohort study. The women attended HIV clinics in BC, Ontario and Quebec. The interviews were done between 2013-15. The inclusion criteria included being cis-gendered, being 20-70 yr of age and having a cervix. The primary objective was to determine whether women were having cervical cancer screening (CCS) frequencies as suggested by screening guidelines. The analysis included both descriptive and multiple regression to determine odds ratios. Of the 1422 women who agreed to participate, 233 were excluded. Of these almost 7% were excluded because they had a crevicectomy

	which means they presumably had had cervical cancer. They found that of the 1189 women in the final sample 68.5% had CCS in the previous year. There were differences in rates related to several sociodemographic variables as well as clinical care. The authors also found interprovincial differences. This was a worthwhile study to report CCS in a large cohort of woman with HIV who are a greater risk of cervical cancer. It would be helpful to know whether the authors think the women who volunteered to be part of the cohort are representative of women in Canada with HIV. How many women were invited to be part of the cohort and refused? **We added a section on representativeness in the limitations section. Unfortunately, we do not have data on women who declined to participate.** It would also be helpful to know how many of the women in the cohort had had an abnormal Pap smear previously because for these women followup would no longer be considered screening. **Unfortunately, we do not have this data either.** The provincial differences suggests that health providers in BC are doing something different than those in Ontario and Quebec or that the women are somehow different. An elaboration of this would be helpful for the paper. **The interprovincial difference may be due to a difference in what providers do, in health care system, in public health promotion of cervical cancer screening or in characteristics of women. We expanded on all these possibilities in the discussion.**