Reviewer’s report

Title: The epidemiology of sexually transmitted co-infections in HIV-positive and HIV-negative African-Caribbean women in Toronto

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Reviewer: Thomas Peterman

Reviewer’s report:

This paper describes the results of extensive STI testing of African and Caribbean women recruited from a community health center in Toronto. A strength of the paper is the large number of tests that were done. One weakness, mostly acknowledged by the authors, is that STI incidence varies by age, and a cross-sectional study can tell about cumulative risk for viral infections, but only recent risk for bacterial infections. The median age of HIV-positive women is 40 and HIV-negative women is 31, so both groups are beyond the usual high-risk age for chlamydia or gonorrhea.

I have several suggestions for minor and discretionary revisions:

I think the authors should discuss more about whether (or not) women selected from this site could be considered representative of all African and Caribbean women in Toronto.

Others:

Page 7. Laboratory methods should include the method used to diagnose BV.

Page 8. Study population (or page 10 Viral infections). I would mention that more of the HIV-infected women are African (81%) compared to the HIV-uninfected women (36.4%)

Page 10, covariates of chlamydial infection: Did all of the 15-19 year-olds report having sex at some time during their lives?

Page 11, covariates of bacterial vaginosis: Why are different age groups used for HIV-positive women (less than 45 vs. 45 and older) and HIV-negative women (…and 40+)? I think the same age groups should be used for both.

Page 12, paragraph 1. “…other interventions, including HPV vaccination, might both reduce the high viral STI burden and reduce HIV transmission in these communities.” I would mention current HPV vaccine recommendations in Toronto. Do the authors recommend changing current recommendations for these women?

Page 12, paragraph 2. Gonorrhea and chlamydia infections will clear (within months to a couple years) without treatment, so I would not attribute the lack of current infection to the availability of antibiotics. Many of these women are
beyond the age at highest risk for chlamydia and gonorrhea.

Page 13, paragraph 1. “…chlamydial infection among HIV-negative women was significantly higher than in older women under 25 years;” I am not sure what is meant by “older women under 25 years”.

Page 15, paragraph 2. It is helpful to have the statement that the study was unable to reach the targeted sample size of 300 HIV-positive women. It would also be helpful for the methods section to mention the sample size target and the rationale for choosing it.

Table 2. What is meant by “Abnormal vaginal flora?”

Table 3. Many of the HIV-infected women had not had sex in the previous 6 months (52%). That seems unlikely, but possible. I am more surprised by HIV-negative women--42% did not have sex in the previous 6 months? That seems too high.

**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