Author’s response to reviews

Title: The Epidemiology of HIV and other Sexually Transmitted Infections in African, Caribbean and Black Men in Toronto, Canada

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We include the responses to the statistical reviewer below. Our previous responses to reviewer 1 (and the current responses to the statistical reviewer) are detailed in a table that is included as supplementary material to this manuscript.

STATISTICAL REVIEWER COMMENTS

OVERALL: I think it is a nicely written paper. It is a little long for the data presented — could easily be turned into a brief report.

OUR RESPONSE: We appreciate your positive reaction to the paper. We did our best to respond to previous reviewer comments which we believed help us to strengthen the paper. Per your suggestion, edited the paper further to reduce its length.
STUDY DESIGN: cross-sectional descriptive epidemiological study conducted with a non-probability sample. This has implication for the generalizability of the findings to the wider-population of African, Caribbean, and Black (ACB) men who have sex with men (MSM).

OUR RESPONSE: We agree the results may not be generalizable to the general population of ACB men who have sex with men, and discussed this as a limitation in the discussion section.

STATISTICAL REPORTING: It is unclear from the methods 1) how many models that were constructed, 2) clearly stating the dependent and independent variables being examined in each model, 3) whether or not there was an a priori decision made to adjust for any sociodemographic variables. Need to more clearly state the models for which interaction terms were fit. The authors use incorrectly use the word "likelihood" throughout — this implies that probabilities were calculated when they weren't. Since they calculated odd ratios, the appropriate term would be "odds". Assessing model fit in scientific papers is implied — hence, it is not necessary to say things like "The area under the ROC curve for the model with sexual behavior category x Other STIs interaction is 0.86, indicating good accuracy of the model."

OUR RESPONSE: We apologize that it we did present this clearly. The dependent variable is HIV infection. Separate models were fitted on the history of different STIs, group (MSM vs. MSW), and STI x group interaction, so in total there were 9 separate models, one for each STI category. We have clarified these in the analysis section. We replaced “likelihood” with odds to be more accurate. We agree that assessing model fit in scientific papers is implied and therefore have removed the statement regarding “area under the ROC curve...”

INTERPRETATION: need to do a better job couching the findings — especially the prevalence data — in the context of other studies that have been done in the region. They do this with one study for syphilis, but this is not comprehensive and for the other STIs this is not really done.

OUR RESPONSE: We contextualized our findings with another study of MSM that was conducted in Toronto. We were unable to make direct comparisons between the sub-sample of ACB MSM in the other study, but we do describe comparisons between the MSM in our sample.
REQUESTED REVISIONS: See my comments posted above. Mainly better specification of models, and correcting incorrect terms that were used.

OUR RESPONSE: Thank you. Our responses above focus on your comments regarding specifying models and correcting terminology.

ADDITIONAL REQUESTS/SUGGESTIONS: Would be good to compare estimates to any population level data that has been reported in the past -- even if not specific to this group, but specific to MSM and MSW in general.

OUR RESPONSE: We compared our findings to a previous study of MSM. We were unable to identify population-level data for comparison and highlighted this as a current limitation in the epidemiology evidence-base for Ontario.