Reviewer’s report

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

Version: 1 Date: 12 Dec 2018

Reviewer: Research Square

Reviewer's report:

"STATISTICAL REVIEWER ASSESSMENT:

Is the study design appropriate for the research question (considering whether the analyzed population accurately reflects the design and whether you see any problems with control/comparison groups, e.g., likely confounders)?

Yes - overall design, population, and control groups are appropriate

Are methodologies adequate and well implemented (considering whether assumptions are addressed and whether analyses are robust)?

No - there are minor issues

Are the analyses adequately communicated (considering whether reporting details are adequate and whether figures and tables are well labeled and described)?

No - there are minor issues

Does the interpretation accurately reflect the analyses without overstatement (considering whether limitations/bias are acknowledged and whether accurate descriptors, e.g., 'significant', are used)?

No - there are minor issues

Could an appropriately REVISED version of this work represent a statistically sound contribution?

Probably - with minor revisions

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.

In terms of methods and statistics used:
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).

Statistical methods: the authors report on prevalence estimates, comparisons using Chi-square test, and multivariable logistic regression.

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."

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.

REQUESTED REVISIONS:

See my comments posted above. Mainly better specification of models, and correcting incorrect terms that were used.

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."
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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