Reviewer's report

Title: Seroepidemiology of viral hepatitis, HIV and herpes simplex type 2 in the household population aged 21-64 years in Puerto Rico

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Reviewer: Gregory Lucas

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Summary
This manuscript by Perez and colleagues presents serologic prevalence data for hepatitis C virus, hepatitis B virus, herpes simplex virus, hepatitis A virus, and HIV in Puerto Rico, using a stratified cluster probability sample of households in the Commonwealth. Strengths of the study include good methodology and a high participant response rate. The data as presented are largely descriptive and are of greatest value to health policy planners for Puerto Rico.

Major Compulsory Revisions
1. It is not clear why the authors did not examine men having sex with men as a risk factor in their analyses.
2. The background and discussion sections should be shortened and focused.
3. Arguably, the finding that 36% of HIV-infected individuals were unaware of their status was the most important finding in this study and should be given greater attention in the discussion section.

Minor Essential Revisions
1. Page 6 – the authors should clarify why they selected AIDS incidence rates among IDUs as a stratification variable and how this information had previously been collected. They should also specify what breakpoints were used to form the strata.
2. Page 8 – information should be provided about how the authors arrived at their sample size.
3. Page 10, paragraph 2, line 2 – the use of the phrase “ever infected” should be replaced by “with past or current hepatitis B infection”.
4. P>0.05 should not be used to supplement places in the text where the authors state that the difference was not significant.
5. Page 12, paragraph 1, line 10 – the sentence beginning “despite” should be replaced with “while”. Also, “anti-HCV” and “anti-HAV” should be replaced by “HCV seropositive” and “HAV seropositive”, respectively.
6. Page 14, paragraph 1 – the authors present new information here about participants’ knowledge of serostatus, which should be presented in the results section first.
7. Page 14, paragraph 1, line 9 – the sentence “these findings suggest that HIV/AIDS appears to have received greater attention in Puerto Rico” needs to be revised.

8. Page 15, line 1 – the authors statement that injection drug use is the driving factor of the HIV epidemic in Puerto Rico needs to be defended in light of the information presented in table 4 indicating that only 5.2% of HIV-positive individuals were antibody positive for hepatitis C.

9. Page 15, paragraph 2 – the authors posit that sex differences in hepatitis C clearance may account for the higher prevalence of hepatitis C in men compared to women. However hepatitis C antibody positivity does not distinguish between chronic and cleared infection. The authors should clarify this point.

10. Page 18, paragraph 2, line 7 – the sentence beginning “we found that high participation rates…” should be deleted or clarified.

11. Table 1 – “other STIs” should be specified.

12. Table 2 – the meaning of the 4 strata needs to be defined in this table.

13. Table 2 – in the column heading “estimated number of adults ever infected in Puerto Rico” the word “ever” is misleading and should be deleted.

14. Table 3 – symbol definitions are required at the bottom of the table.

Discretionary Revisions

N/A

**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