Reviewer's report

Title: Multilevel analysis of HIV related risk behaviors among injecting drug users in a low prevalence community

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Reviewer: Ricky Bluthenthal

Reviewer's report:

Major compulsory revisions

The authors never described in detail how the risk index was calculated. Also, it appear that they used personal syringe re-use as part of the index. In the literature, syringe re-use is associated with syringe sharing, but is not an HIV risk behavior in and of itself. So the authors need to describe and justify the injection risk index they use and not include syringe re-use as part of it. Also, given the low levels of syringe sharing I wonder what the syringe access situation is in Hong Kong. Are syringes easily obtained or is it the drug purity is relatively high and many drug users do not need to inject? Or is there another explanation?

The reported needle sharing is very low (2%) among the IDUs in the sample. This does raise concerns about the reliability and validity of the questionnaire. More description about how this data is collected and a more indepth assessment of its reliability and validity would be very useful.

A another concern is that the title suggest the study is of injection drug users, but actually it is of heroin users who entered methadone treatment. Only 25% of the new admittees report current drug injection. So either the title or the analysis should be changed.

The community level data that is analyzed is meager. Only income and education are considered. The significance of the paper might be increased if other community characteristics were considered including unemployment rates, population density, percentage of homeownership and other factors that might be related to drug use rates and patterns, if such data is available. In addition, no geographic description is provided of the community catchment areas. How many people live in each, how large are they in terms of space, are they mostly commercial, industrial, agricultural (if such exist on Hong Kong), or residential?

It would be useful to show crosstabs and means for risk index and it components by community characteristics and individual-level variables (age, gender).

Lastly, the authors should provide some justification for their classification of lower risk (<1) and higher risk (1 or more) for their risk index.

Minor essential revisions

It looks like the major risk behavior for this population was unprotected sex. The
authors might want to consider this implication in relationship to studies like Kral et al Lancet 2001 and Strathdee et al Archives of Internal Medicine 2001 that documented that sex risk (not injection risk) appeared to be driving HIV incidence among IDUs.

Discretionary revisions

On page 14, first full paragraph. They can delete the frist couple sentences on not random sampling this population. They should just say instead that their sample is not representative of heroin users in Hong Kong.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

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.