Reviewer's report

Title: The Cedar Project: Rapid increase of HCV infection in a longitudinal study study of young Aboriginal people who use drugs in two Canadian cities

Version: 4 Date: 25 April 2012

Reviewer: Paul Nelson

Reviewer's report:

The authors have responded to the initial review and addressed the majority of the issues raised. They have clarified aspects of design, sampling, coding and analysis. They have revised their final statistical model, resulting in only small changes that do not substantively affect their conclusions. They have also tightened the discussion and drawn links to some of the wider literature. This second review reiterates a couple of outstanding and straightforward issues, lists minor revisions that the authors can address without further review, and suggests some optional improvements.

Major Essential Revisions

1. Provide descriptive statistics (carried over from review 1)

I am happy with the authors’ decision not to report descriptives, providing they refer the reader to the prior publication containing these statistics for the current subsample (n=148). They should also make clear any concerns relating to cell size. Preferentially, these data would be made available in Table 2 so these issues and the scale of the effects under examination can be more readily examined.

Minor Essential Revisions

1. Abstract: Make reference categories explicit for non-binary terms, e.g. “using injection drugs for <2 years…or for between 2-5 years…compared to >5 years”. “Very little is understood regarding factors associated with HCV infection” seems to undersell the authors’ earlier analyses of this issue - consider changing infection to incidence. “Rigs” is culture-specific, explain that it refers to injection equipment. Change BC to British Columbia (BC).

2. Methods para 4: Suggest replacing “frequency of injection” with “daily injection” and delete sentence “Frequency of injection was defined as injecting drugs on a daily or less than daily basis”. Clarify whether the opioids listed are examples or were all the opioids that were enquired about (i.e. that oxycontin bupe etc were excluded). State whether speedballs were coded as cocaine, opioid, or other.

3. Referencing: clarify whether refs #25 and #28 pertain to Aboriginal women or to female users per se (see conclusions para 3). A reference to your earlier assessment of HCV incidence among IDU (Craib et al 2009) should be inserted.
in bkgrd para 2 – perhaps explaining what the current paper adds to that paper

4. Typos. Abstract: use used, any of follow, change comma to colon in “95% CI, 7.7”. Methods 2nd last para: delete young from “among young participants”. Conclusion Para 1: “the therefore”. Conclusion Para 2: is “participants at high risk for HCV” meant to say “to high risk”? Conclusion Para 3: “hazard risk”. Table 2: “On street for > nights”. Check referencing: ref #33 is incomplete, style seems inconsistent (e.g. use of et al). Change opiates to opioids throughout your paper. Might be worth checking for other typos before publication

5. Limitations? Regarding omitted risk factors, the authors clearly explained why non-IDU were not included in these analyses. Adding a comment that “only 5 (out of XX) NIDU seroconverted over the study period” would be informative and support the focus on the IDU sub-sample, but is not essential. More important is the unaddressed issue of poly-drug use. Prior research suggests it is highly prevalent in such samples and is a marker of injecting risk. Uncertainty about its impact on HCV incidence should be acknowledged at least as a limitation. It could also be expanded upon - see suggestion 3 below.

Discretionary revisions

1. The abstract could be more compelling and better reflect the paper’s contribution. Why do we need to know about the risk factors for HCV incidence? Why should we read the full article? If word count is strict use numerals and abbreviations (editor permitting) or chop some results.

2. Expand treatment comments. The not insubstantial rates of seroconversion amongst youth with longer histories of IDU, and the limits of basic harm reduction efforts give pause for thought on other treatment implications and options (positive impacts of OST, psychosocial treatment for cocaine dependence etc).

3. Poly drug use/making sense of drug-HCV relationships (further to minor revision 5). Daily opioid injection is a strong bivariate risk factor for incidence, and in the authors’ earlier work (Craib) was correlated with HCV prevalence. It is unclear how drug-specific the associations with these different epidemiological parameters really are. Reporting the overlap of opioid with cocaine injection would be useful

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