Reviewer's report

Title: Comparing well-being and opportunity in late adolescence: siblings and neighborhoods in a Canadian province

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Reviewer: Sandy Tubeuf

Reviewer's report:

The paper is an interesting piece of work. However I have a number of comments to make and I am not totally convinced the BMC Public Health is the appropriate outlet for the research work. To me the main innovative part of the work is not the interpretation of the results in terms of public health but the use of linked datasets and so I wondered if the authors had already considered submitting the paper in outlets where large data linkages are of peculiar interest. For example, the paragraph at the end of page 1 summarising the results does not mention the conclusions about the analyses themselves but the methodological aspects of the work.

Major comments:

The authors use the concept of Inequality of opportunity. However they ignore that there are a number of recent work that have focused on inequality of opportunity in health in the past year in relation with the concept of social justice and it is essential for the authors to position their work in relation with this research stream. In addition these recent references have carried out empirical work too. Here are a number of references that they might want to consider including John Roemer seminal work (Equality of opportunity 1998 - Cambridge Univ Press); Rosa-Dias Health Economics 2009; Trannoy et al., Health Economics 2010; Rosa-Dias Health Economics 2007; Jusot et al. 2013. In addition it is important to clarify when using opportunity in a non plural form (see Background section) which opportunity the authors are talking about. To me it seems that the authors make a confusion between opportunity and possibilities, however there are a number of research work which have defined the differences about this and it is important to refer to this work too (see Alan Williams)

It is important to bear in mind that even if administrative data and linkages are facilitating research and data analyses; a number of unobserved characteristics still persist particularly with regards to health and this includes genetics, moral hazard and also tabou about health and lifestyles.

It could be useful to include a paragraph in the paper on the implications of the various measures of health status and health care costs for the present paper after citing Roos and Wald page 11.

Minor comments
- what do the authors mean when writing "means/proportion and sibling correlations" in the opening 2nd paragraph?

- Please include a reference to the following statement "Low educational achievement and high sibling correlations among the poor emphasize socioeconomic mobility issues" in Background.

- Please replace the general passage of time by time passing or over time or something clearer.

- Be more explicit when writing "a creative application of linear programming", it is not clear to the reader what it is.

- please clarify what the "the high twin/twin correlation' is

- please do not use the "left-over" terminology and replace by non paired up or non matched within a postcode area.

- Please clarify whether consumption units were used for the mean household income and if not, why this was not done. Please clarify how the income is available (globally reported or reconstructed from various income reports such as both partners, including benefits, etc.)

- Please provide percentages and not frequency in the last paragraph page 8

- Please clarify what is the "low probability category" at the top of page 9

- please replace "the highest scorers were given an index score of 2.96" page 9 by 'the highest scorers reached an index score of 2.96"

- please clarify what is the mode page 13, is it the median value?

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: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

nothing to declare