Reviewer’s report

Title: Comparison of indicators of financial situation in the context of an epidemiological study

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Reviewer: John Fiedler

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Major Compulsory Revision

1. The authors characterize the measure of interest as “financial situation”, “financial availability”, “income”, and “socio-economic status”. These are not identical concepts and it would be useful for the authors to discuss some of their differences; in particular, distinguishing between income and wealth. The authors write on page 8: “there was no information about whether a residential unit was owned or rented. However, we assumed that there was a reasonably close relationship between the value of a given residential unit and the costs ensured to rent or own it.” What does this mean? The effects of income on consumption are different from the effects of wealth on consumption.

Discretionary revision

2. The methods are appropriate, but the authors might have described why they used both the Spearman correlation coefficient and the Kappa coefficient.

Discretionary revision

3. The authors note that “some have observed a substantial discrepancy between area-based and individual socio-economic status measures”. So doing, they raise the question in the reader’s mind of how the residential value index performs at both the group and the individual level.

Minor essential revision

4. The authors explain the different ways in which property values are calculated (page 7), but don’t discuss the potential implications of these different methods in terms of the variability of estimates based on the different methods, leaving in question the wider applicability of the proposed approach.

Major Compulsory Revision

5. Data availability is the key issue that prompted this paper. The authors note that “approximately 60% of respondents did not declare their family income” (page 6). The residential value index, however, was available for 1,862 of the 2,716 participants, (69%), an increase of only 9% in the number of study subjects. This raises the issue of whether or not the additional 9% is “worth it”, which, in turn, begs the issue of what are the additional processing requirements of the residential value index (and the other approaches discussed). These it would seem are relevant additional considerations and criteria in making a
decision about which approach is “best”.

Major Compulsory Revision

6. The authors note in a discussion of the “operational limitations” (page 14) that they “could not assign a value to persons residing in retirement and other community homes. Moreover, we had to restrict our sample to residents of the Island of Montreal for whom residential values were readily available”. These shortcomings are likely to result in systematic variations which may result in a selection bias, tainting the results. The authors need to discuss this.

Major Compulsory Revision

7. The statistical analysis is restricted to 676 subjects for whom the three indicators of financial situation were available. This is just 24.9% of the original sample. Why the analysis is so restricted needs to be better explained and described. The authors state that 60% of the participants (n=1,047) declared their self-reported family income; the residential value index was available for 69% (n=2,716) and census income was available for all 2,716 participants.

Discretionary Revision

8. While the authors are careful in conditioning their findings and the implications of their work, they conclude that using a residential value index “may provide a surrogate measure of financial availability that is closer to self-reported household income than the commonly used census income. Each indicator presents, however, advantages and disadvantages and their choice may depend on study objectives and feasibility” (page 15). The authors should note that, depending upon the particular research issue at hand, the measures may be complementary, rather than competitive: one more effectively measuring income, with the residential value index providing a measure of wealth.

Level of interest: An article of limited interest

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.