Reviewer’s report

Title: Estimating Multimorbidity Disease Burden Among Older Adults: A Study of Six Chronic Illness Measures, 2008/09 Canadian Community Health Survey

Version: 2 Date: 20 October 2014

Reviewer: Danan Gu

Reviewer’s report:

Major Compulsory Revisions:

1. Lines 46-53: The difference between multimorbidity and comorbidity is not very to me. Honestly, from the current description provided by the authors, I am unable to tell their difference. More clarification is needed to stress their difference.

2. Are there any justifications for constructing the multimorbidity weighted by HUI3 scale, the Multimorbidity weighted by ADL scale, and multimorbidity weighted by HUI3 (beta) scale? Are such approaches robust or reliable? How about the disease conditions with subsequent mortality? It might be more robust to use the regression (or correlation) coefficients between diseases and mortality as weight to construct multimorbidity scale.

3. * in Table 2: In my understanding, all correlation coefficients in Table 2 are significant at p<0.001 level. But I am not sure whether my understanding is right. Notes a to e for Table 2 are unclear to me. The more explicit explanations are needed. In my understanding, the coefficients in Table 2 are for a bivariate association, yet these notes (a-e) seem to be for the overall case. I have no idea what they try to specify.

4. * in Table 3: In my understanding, only the correlation coefficient between multimorbidity (0 versus 1+) and life satisfaction is statistically significant at p<0.001 level. All others are not significant. Yet I am not sure whether my understanding is correct. Also there is no notes a-e. This comment is also applicable to Tables 4 and 5.

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

Quality of written English: Acceptable

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

Declaration of competing interests:
I declare that I have no competing interests.