Author's response to reviews

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

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Author's response to reviews: see over
We greatly appreciate the opportunity to revise and resubmit our manuscript in light of the very helpful comments/suggestions. We have detailed our responses to the Reviewers below in sequential order. Also note that all tables have now been uploaded in two files: 1) Tables 1-4 portrait format; and 2) Tables 5-6 landscape format.

Reviewer Joshua Armstrong

1) We have included further details pertaining to the creation of the three weighted scales 4 through 6 (lines 206-209). In addition, we have incorporated a new table (Table 1) that provides the weights for the 19 chronic illnesses that were generated using the weighting variables HUI3 (Pearson r & betas) and ADL scales (Pearson r). These weights were added together to produce the weighted measures. All other tables have been re-numbered appropriately. All subsequent Tables have been renumbered and revised in the text (Tables 2-6).

2) We have extended the discussion of the comparison of the additive scale versus the weighted scales (new lines 394-401).

3) The limitations section has been revised (lines 422-427).

4) Replace comma with period (new line 250).

5) “Magnifies” changed to “magnified” (new line 381).

Reviewer Danan Gu

1) Comorbidity and multimorbidity have been more clearly delineated (lines 51-54).

2) We have added further justification for using HUI3 and ADL scales to weight the multimorbidity measures (lines 224-226). We have also extended the limitations/future research section to include the use of mortality (lines 423-424).
3) Additional description of Table 3 (previous Table 2) has been made in the text (lines 264-268). Also, title of Table and footnotes have been edited to clarify. Tables 4 – 6 (previous Tables 3-5) have also been revised for consistency and clarity.

4) Table 4 (previous Table 3) has been retitled for clarity. Also, asterisk (*) has been moved to title to show that all associations in the table were statistically significant (p<.001). Statistical tests comparing correlations between the multimorbidity measures and the outcomes was not reported for the subsequent analyses (Tables 4-6) due to replication of results (lines 326-328). We repeated this point under Table 4 (previous Table 3) to remind reader.

In addition, we have polished the writing in the manuscript in a number of places.

Many thanks for your helpful comments.