Reviewer's report

Title: The increasing burden and complexity of multimorbidity

Version: 2 Date: 6 March 2015

Reviewer: Karen Barnett

Reviewer's report:

Thank you for opportunity to review this manuscript. This manuscript describes a retrospective cohort study estimating the population prevalence of multimorbidity, using routine datasets, at two time points 2003 & 2009 in Ontario, Canada. The manuscript goes on to describe the prevalence of disease clusters among Ontarians. This topic is important, timely and this study adds to the limited literature on population prevalence of multimorbidity. The study further provides interesting data on disease clusters which, very nicely, highlights the diversity and complexity of multimorbidity.

I enjoyed reading this manuscript which is clearly presented and well written. The study appears to use reliable data sources and the large population available is a significant strength of this study. The methods are clearly described and the discussion and conclusions are supported by the data. The title and abstract accurately convey the results of this study.

Major Compulsory Revisions
None

Minor Essential Revisions
Line 21 – when referencing multiple articles please put reference numbers in ascending order e.g. [8, 13-20]. Please address this throughout the manuscript.
Line 160 – I found sentence beginning ‘For example….’ unclear. It would read better if it began ‘For example, in 2003 among all 56 year olds, we identified 48,101 who had two or more conditions; in 2009, these same individuals….’
Line 198 – typo ‘…as exhibited by the many different of clusters..’. Remove ‘of’.
Line 211/212 – ref 21 also provides mm estimates for children and young adults.

Minor Discretionary Revisions
Intro – none
Methods
Line 68 - please provide the justification for excluding people with no contact with the health care system within the last 5 years.
Line 118/127 – the analysis section might benefit from some additional detail on how prevalence of disease clusters were calculated. Software package used etc.
Discussion
Line 230 - the authors comment on the increase in mm overtime while the
prevalence of single conditions remained constant, as one of the more interesting findings. I would be interesting to read how the results from this study compare with other reported estimates of the increasing trend in mm/chronic conditions.

Line 294+ - the authors selected 16 conditions to calculate prevalence of mm. While I agree with the authors that that inclusion of additional conditions would be unlikely to affect the GENERAL conclusions offered, I feel that the potential limitation of only considering 16 conditions (only 2 mental health conditions) have not been adequately addressed e.g. what would the possible implications be for the study’s results? I have provided the reference for a systematic review by Diederichs and colleagues, not currently included in the manuscript, which I think would be relevant to the discussion.


Level of interest: An article of importance in its field

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