Reviewer’s report

Title: Prevalence estimates of multimorbidity varied with study population and the number of candidate diseases considered: a comparative study

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Reviewer: Thomas O'Dowd

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Review of paper: Prevalence estimates of multimorbidity varied with study population and the number of candidate diseases considered: a comparative study

This is an interesting study and is a clever use of two databases, one extremely large and one more modest. The authors have set out to compare age and sex specific estimates of the prevalence of multimorbidity based on the Canadian Community Health Survey and from family practice based populations from a previous study. The databases were populated three years apart.

The study is epidemiologically insightful in that it shows that a general population is different from a family practice population when it comes to the prevalence of chronic disease and the numbers of chronic diseases. The figures the authors have produced are compelling and I wondered if Biomed Central has a facility where they could be supplied as Power Point slides and downloaded for teaching purposes.

By way of additional explanation, there is likely to be a self-selection process going on, in that patients who develop a chronic illness are more likely to be captured in the family practice population than in the general population.

I found it puzzling that while in the general population more women than men have multimorbidity, more men than women with multimorbidity are seen in primary care. This seems to go against a more general trend in primary care, but the authors speculate that differences in severity may lead to a different pattern of consultation for males and females.

On a final point, I would like to see the list of seven diseases from the community studies, listed in an appendix.

Overall this is a well written, interesting paper with a good question and appropriate methodology that will be of interest to a wide readership.