Reviewer's report

Title: Predicting nursing home admission: a meta-analysis

Version: 1 Date: 1 February 2007

Reviewer: Michael Höfler

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. Don't use causal language throughout the paper, you assess associations, not "effects".
2. Background, 1st two sentences: Tell us which country and time frame these numbers refer to. The costs vary strongly across countries. For an international audience it might be more informative to present the costs in dollars per person and year. Or, you might be more explicit in the beginning pointing out that the paper is restricted to the U.S.
3. P.5f: The authors discuss meta analyses very uncritically: Results should sometimes not be aggregated if there is evidence that they differ across the studies. In that case external validity is very questionable e.g. because different methodology used in different studies might bring up or mask an association.
4. Abstract and p.6: mention how the search keywords were logically linked (probably it's any of those beginning with "nursing.." + "predictors/institutionalization").
5. p.8: What does it mean that "variables were measured ... in similar or identical way"? Probably, this is difficult to assess according to objective criteria but this should be explicitly stated.
6. p.9: The identification process could be illustrated in a flow chart. It would be important to know how many of the 3,861 studies and how many of the remainders were excluded because of which of the mentioned reasons.
7. Although commonly used in epidemiology, odds ratios are not terribly useful to assess the degree of association. For instance, the pooled odds ratio is not the weighted mean odds ratio across the data sources (using the geometric or arithmetic mean). Therefore, the pooled odds ratio does not estimate an average association, it estimates only the common odds ratio under the assumption that ORs were the same. Now, the results in tables 2 and 3 show that in about 50% of the cases there is evidence for heterogeneity. Therefore, the meaning of the pooled ORs is questionable here. Moreover, different odds ratios (and also hazard ratios) are not logically related to a different number of admission cases that could be prevented. The risk difference would be more useful because it has that property. See various papers of Sander Greenland on these issues.
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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
1. Abstract, results: "activity" should probably be "activities".
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Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

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

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.