Reviewer's report

**Title:** Local psychiatric beds appear to decrease the use of involuntary admission: A case-registry study

**Version:** 1  **Date:** 28 November 2013

**Reviewer:** Lars Kjellin

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I agree with the authors that studies of the impact of organizational factors on involuntary admissions are few and show inconclusive results. Thus, I welcome this study and find it interesting and well written but I think some issues have to be considered before publication.

**Major compulsory revisions**

1. The conclusions of the study are completely dependent of the quality of the data on which they are based. My experience is that case register data are of low quality. The authors state on p.6 that there might be some possible limitations but that case registers “hold a strong position”. I think this argumentation should be moved to “Strengths and limitations” in the discussion section and further elaborated. What can be said about the accuracy and completeness of the case register data used as a whole, not just the diagnoses? Was any kind of quality check performed?

2. On p. 8 it is said that “We also performed multiple logistic regression modelling”. I think this statement is too brief. The way variables were entered in a stepwise manner should be described more in detail.

3. It is described that in Norway, GPs refer patients to involuntary treatment, while the actual decision to treat a patient involuntarily is made by a psychiatrist or psychologist at the institution within 24 hours of admission. The rate of involuntary admission in the deinstitutionalized system was 5.6 % at admission and 8.0 % at the following assessment of specialists (p. 9 and table 2). How can the second figure be higher than the first one? Does it mean that all admissions are assessed for involuntary treatment criteria, and thus that all patients coming to the institution voluntarily run the risk of being involuntarily detained? I think this has to be clarified.

Furthermore, in light of the difference between the two time-points in one of the systems, does the conclusion on p. 14 that “the referring doctors and the assessing specialists make relatively comparable assessments” hold true?

**Minor essential revisions**

4. It seems to me as if “involuntary admission” and “involuntary treatment” are used as synonyms in the paper. Is this adequate? In the Swedish context, I
regard them as different concepts.

5. The two models explain between 4.3 and 28.7 % of the variance. I think the interpretation of this should briefly be commented in the discussion.

6. P. 10, 2nd paragraph, 8th line: a “p” is missing in the parenthesis.

7. Table 1: I expose my ignorance, but I don’t understand how “Share of CNI by catchment area size” is calculated. How can 54.6/57.8 vs 45.4/42.2 be interpreted as “remarkably similar” (p. 5)? Please explain the CNI calculation briefly.

8. Table 3: the p-values below the table should be omitted.

Discretionary revisions

9. Results, 1st paragraph, p. 6: I think most of the text in this paragraph should rather be presented in the discussion.

10. Table 3 and 4 show the results of the final step of the regression analyses. If it is not all too space consuming, I would prefer to see all steps in the tables.

11. Figure 1: Are there any data about the number of staff of different qualifications in the two systems, besides outpatient clinicians (p. 6)? I think such data are of interest, too, in describing the systems.

12. As mentioned above, earlier studies of this kind are few. However, there are some studies from the 1980s and 90s on for example differences in involuntary admissions between urban and rural areas and association with number of psychiatric beds (with inconclusive results, as well). It might be of interest to discuss the main finding in this study, that available local beds may be of importance, in relation to these studies, even if they are old.

**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