Reviewer's report

Title: Does monitoring Need for Care in patients diagnosed with severe mental illness impact on Psychiatric Service Use? Comparison of monitored patients with matched controls.

Version: 1 Date: 14 January 2011

Reviewer: Chiara Bonetto

Reviewer's report:

Major Compulsory Revisions

1. The paper is based on the rationale that systematic assessment of needs and other clinical parameters will reflect on changes in out-patient care. The Authors declare that 82% of the CNCM patients were assessed for the first time. So, a real systematic assessment by the 2004 year was not available

2. Care consumption changes were evaluated by differences between the year after and the year before the assessment date: is one year enough as time period in order to see the effect in terms of more out-patient care and less days in hospital? Possible concerns are mainly on in-patient care

3. The variable categorized ad ‘no care before 2004’, ‘new episode after 365 days out of care’ and ‘persistently in care’ does not indicate the duration of previous treatment. The category ‘new episode after 365 days out of care’ refers to what period of time? Moreover, it could be useful to state an hypothesis of how these different groups might present different patterns of changes in care

4. In the Aims of the study section, it is said that matching between CNCM and control region is perform ‘in order to be able to demonstrate changes independent of trends over time’. It would be useful to specify the meaning of this statement

5. In the Aims of the study section, the hypothesis on care consumption should be detailed by specifying which measures of care will change and the expected changes

6. In the Subjects and matching section, it should be useful to detail the meaning of the variable ‘date of start mental health care episode in 2004 in days since 1-1-1960’. In particular, why did you choose 1-1-1960?

7. The propensity score procedure used to balance the covariates in the two groups is real good, but it should be detailed the estimation method. Discriminant analysis? Logistic regression? Other?

8. Why the diagnosis was not considered in the propensity score?

9. The NN patients before matching are 11677 and after matching they are 612. The difference in sample size is enormous. Differences in clinical characteristics and care consumption should be explored because it was possible that the selection procedure would have introduced a bias
10. Data about severe mental illness (SMI) in the control region are not given. Why?

11. In the Statistical analysis section, the estimated multilevel model should be detailed, in particular how individual change and inter-individual differences in change have been estimated. In the RESULTS and in Table 3 these two measures should be given.

12. The RESULT section seems too much concise with respect to the methodological frame of the paper. It should be useful to develop it.

Minor Essential Revisions

1. The last part of the INTRODUCTION sounds like Aims of the study, so it could be move in this section of the paper.

2. At the end of The Cumulative Needs for Care Monitor Database section, it is written again a statement about ethical committees and patient’s consent already reported at the beginning of this section.

3. Table 1: the variables should be reported with the same labels as in the paper (e.g. ‘# days before July 1st, 2004 …’ should report ‘between January 1st 1999 and July 1st 2004’).

4. Table 1: Why ‘2 years’ are introduced in the label of the variable # in-patient days?

5. Table 1: Was the variable age used as continuous or categorical in the matching procedure? If it was used as continuous, it is not correct to give the distribution of the categorical age.

6. Table 2: SMS distribution should be move to table 1; moreover, give the same data for NN patients.

7. Table 3: introduce the measures of individual change and inter-individual differences in change.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.