Reviewer’s report

Title: The long-term care in Italy: an ecological study on the relationship between supply and health needs of elderly

Version: 1 Date: 28 May 2009

Reviewer: Howard Bergman

Reviewer’s report:

Reviewer report

1. Is the question posed by the authors well defined?

The research question is a relevant one and must be useful for the researches in this field and the decision makers interested to improve the health care services and delivery for the frail elderly.

Major Compulsory Revisions

The formulation of the question may be confusing as the authors said they are interested to analyze (as said in the background of the abstract) the relationship between available residential health care services and health care needs of the Italian elderly.

In fact, when we read the manuscript, we understand that they are looking at the relationship between supply of beds in long-term care institutions in Italy and potential care needs for the elderly, established by looking at the prevalence of disability.

Given that, the purpose of the study (p.6) could be modified as (See suggested modification in bold: The purpose of the study is to perform an analysis of the relationship between the long-term care institutional supply of beds and potential care needs, taking into account the social and health context, the supply of complementary and alternative services, along with informal care.

2. Are the methods appropriate and well described?

It is useful to have access to the information about the Italian Health care and social Care System (appendix 1) and the Analytical description of sources (databases) utilized for calculation of indicators (appendix 2).

Major Compulsory Revisions

The definitions of "inappropriate discharges" and "long-term discharges" (p.7) need to be clarified.

The definitions of the indicators and their terminology need to be revised. Uniformity of terms along the manuscript is required for a better understanding.
Uniformity:

Indicator 1: Residential care supply for elderly
Define as the rate of beds in residential institutions... calculated per 10,000 population aged 65 and over

Other terms used in the manuscript: supply (title), available residential health care services (p.2), available residential care (p.2), residential LTC services (p.3) supply of beds in residential institutions (p. 9), residential care (p.10), long-term care institutional supply (p.13), residential care supply (p.13)

Indicator 2: Health Needs
Define as prevalence of disability: elderly people with at least one disability

Other terms used in the manuscript: Health care needs, needs, prevalence of disability, care needs

Other indicators:
Indicator 3: Social and health context
Indicator 4: Complementary and alternative services for elderly
Indicator 5: Informal care

It would be helpful and easier for the reader to refer to these indicators in the text in a more uniform manner (same terminology). Numbering the indicators could also be considered for easier reference.

We have question regarding the pertinence of references # 10 and #11 as they are not related to the subject of the manuscript. May be they are referred to as their results are presented as tertiles, like in your study, but if the idea was to show other studies using similar methods it should be mentioned this way and better references could be provide for statistical purpose...

An evaluation of the statistical analysis section by a statistician will be recommended as we do not feel adequately qualified to do so.

Minor Essential Revisions
Given the important number of databases used and referred to in the text the utilization of their corresponding letter (A to G) may help the reader.

3. Are the data sound?

The utilization of the map of Italy is useful to illustrate the data.

Major Compulsory Revisions

However, as not all readers will know the name of the corresponding regions on the map of Italy or will take the time to "google it", the names of the regions mentioned in the text should be clearly indicated on the figures (using small letters in the regions with complete name in a legend, for example). The
orientation i.e. North, South, Middle should be added with the name of the region in the text.

Subtitles should be used in the result section to clearly identify the results by indicators. Another way to clarify this section will be to use the same terminology previously established for indicators (see answers question 2).

Page 12. When reporting the results of the ANOVA: The ANOVA test showed differences statistically significant for each indicators but families with a social network (p=0.146) and for scarce economic resources of family (p=0.355) should be reformulated. These results corresponded to a specific component of an indicator.

Page 13: Results about the third group: the highest level of families with a social network (IN= 103.1) was NOT statistically significant (p=0.146).

Table 1: Revise the title: potential care needs versus prevalence of disability?

Table 2: For more clarity it is suggested to identify each of the three indicators and their corresponding components. Definition of the tertiles should be uniform with the text. QUESTION: we do not understand (Italy=100) in the title of table 2.

Table 3: Uniformity of the variables with the text

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?

Major Compulsory Revisions

The authors should discuss more their own results. Example: Potential reasons for the variation of results across Italian regions, potential reasons for inappropriate hospital services and use of informal care, etc.

Page 14. Although there is a high share of very old who could need health care, the supply seems to be prominently dependent on informal system. Please explain your idea, refer to the data (component of the informal care…) one component non significant…other is family paying a caregiver...

The authors must explain how their results shown in table 2, at the level of the indicators as a whole and for specific components could support the trend (reported from the literature) for more adequate form of managed and integrated care for the entire system of care instead of the redistribution of beds based on the analyses of the potential needs of the elderly population.

The authors should better link their results to the following discussion about new trends of LTC services other than institutionalization…
6. Are limitations of the work clearly stated?

Major Compulsory Revisions
The authors did not report the limits of using administrative databases and surveys from the National Institute of statistics and the Ministry of Health.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?

No

8. Do the title and abstract accurately convey what has been found?

Major Compulsory Revisions
The title does not reflect properly what was done in this study (see comments question 1).

Proposed title: An ecological study on the relationship between supply of beds in long-term care institutions in Italy and potential care needs for the elderly

The abstract needs to be reviewed for uniform use of the terms (background, methods. Methods need to be written in a clearer manner regarding the 5 indicators, the three groups determined for the first two indicators and the calculation of the index number (definition?) for the three other indicators. Results should highlight the variation across Italian regions

9. Is the writing acceptable?

Minor Essential Revisions
Some sections need to be reviewed for more clarity: statistical analysis and results.

Michele Monette
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Howard Bergman

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests