Reviewer’s report

Title: Self-rated health and hospital services utilization in the Spanish Public Health System: A longitudinal study

Version: 2

Date: 24 July 2015

Reviewer: Erik Groessl

Reviewer’s report:

The manuscript describes a database analysis studying the relationship between self-rated health and use of hospital services in a region of Spain. In general, the manuscript is well written and the methods and analyses seem well chosen and rigorous. The findings are very interesting and informative, and could influence policy in the future.

1. Lines 51-53. The sentence starting “In men,….” might read better if split into 2 sentences to clarify which group is being discussed.

2. Lines 67-68. Authors state that self-rated health provides a global overview of the population’s health status. That is only true if the measure is used at the population level, and not at an individual or group level. In addition, it is stated that SRH is an indicator of willingness to make an effort to maintain good health. I don’t understand how this can be true as the SRH question asks nothing about effort or willingness. It is possible that other research has linked SRH to these things. If so please provide correct references. The reference after this section is a review of studies linking SRH to mortality, not population health or willingness.

3. Lines 78-85. Please briefly summarize what these studies have found, and maybe where they were mostly conducted.

4. Lines 86-96. I recommend that you mention the ease of using SRH, because it is such a short measure. There are many ways to measure health status, so why use this one?

5. Lines 97-104. This paragraph seems to fit better in the Methods section. I also think by moving this, and maybe not specifying Spain in Line 93, the manuscript will be of interest to the broader audience served by this journal.

6. Lines 138-143. HS should be better defined as this might mean differ some by country. Does this mean admitted overnight? Why is HS only use or non-use? What about # of days used? Was this transformed or too difficult to analyze otherwise? It would be very interesting if we understood what is required to be hospitalized in RV. If someone complained of chest pain and no cause could be found, would they be hospitalized? Is a physician decision that they are in need of close medical attention required? Number of days or times using HS would get at high frequency users.

7. Lines 137 – SRH measure should be full explained first. I see the next paragraph starts describing exclusion criteria and the sample, yet then gives
detail on the SRH measure. Should be regrouped. Describe sample later.

8. Results Lines 199-201 the interaction is not fully explained, was there no relationship in those without chronic disease?

9. Lines 207-208. What probability increased for higher education group? Was the same relationship found for low education stronger yet?

10. Lines 226-229. Unless I misunderstood, this statement seems incorrect. This study did not look at volume of use, only presence or absence if use. That is a limitation of the analysis.

11. Lin 230. Is the Garcia % of 29.6 an annualized figure? If so please specify this.

12. Lines 231-232. Did you look at annual % and then take the mean of those 4? Or simply divide the total over 4 years by 4? The method chosen can produce different numbers. If the former, it could be of added interest to present the HS use separately for each year of the study in a table or text, but no need to do separate regressions.

13. Lines 256-257. Are there any barriers to use of HS by immigrants that might explain this finding?

14. Line 311. Please clarify what “presented greater intensity” refers to. May just be the wording chosen.

15. Lines 346-351. Should add HS being binary outcomes as limitation if it must be analyzed that way. A volume of HS would be a more desirable outcome.

Level of interest: An article of importance in its field

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