Reviewer's report

Title: HIV/AIDS length of stay in Portugal under financial constraints: a longitudinal study for Public hospitals, 2009-2014

Version: 1 Date: 20 Oct 2018

Reviewer: Julian Perelman

Reviewer's report:

Abstract

The abstract concludes that cost-containment measures have improved the efficiency. However, the reduction in LOS can be interpreted also as a cut in quality. I would be more cautious in the way results are interpreted.

Introduction

The Introduction has been substantially improved, and now highlights very clearly, from a theoretical viewpoint, the aim of the paper.

The sentence "However, in the particular case of Portugal, income variations are not likely to have affected the demand for in-patient admissions and days because of the very low copayments and very wide exemption": the point with low-income people is not that may have lower access due to the crisis, but higher use because of deterioration of health conditions. The previous sentence indeed refers that low-income people have a higher use of health care.

Methods

- The variable hospital's current ratio OF WHAT?
- The "current assets" and "current liabilities" variables must be defined, including the source, and how they were calculated.
- The main explanatory variable, which relates to the paper's objective, is the year, because the paper has been announced as examining the impact of the crisis. This must be stated clearly in the variables section. All other variables are covariates, which control for potential confounding.
Results

Again, the paper is about the impact of the crisis, so that yearly changes should be presented first and given the main focus. All other results can be mentioned thereafter, because they are interesting but unrelated to the main research question or hypothesis.

Discussion

Again, the Discussion should first focus the year trend and its relationship with the crisis. All other results are interesting but unrelated to the topic of the paper (i.e., it is not a paper about the LOS determinants of HIV, which would be much less appealing).

I would be less affirmative about the decrease in quality, which is a possible hypothesis, but is not confirmed by the data: in-patient mortality and readmissions have decreased over the period. Disentangling if the LOS reduction was related to efficiency improvement or quality cuts would require another study, so here you can only present hypotheses.

The statement that the "reduction in in elective stays after 2012 may also confirm the budget-related supply-side effect" is unclear to me.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics
Quality of written English
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One author of the paper is a colleague and friend, with whom, however, I never talked about the contents of this paper.

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