Reviewer's report

Title: Relative Efficiency and Productivity: A Preliminary Exploration of Public Hospitals in Beijing, China

Version: 2 Date: 19 June 2013

Reviewer: Kalevi Luoma

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Major Compulsory Revisions

1. The paper should be re-written with more attention to be paid to the clarity of the text. Parts of the paper seem to have been written very carelessly. There are many spelling mistakes and sentences which are hard to understand. Especially the abstract is in need of the revision.

2. The result section would need more discussion on what drives the results, which seem to be quite different than in other studies assessing the productive performance of Chinese hospitals. What explains the very rapid productivity growth of Beijing hospitals? I have not come across any other study which would have presented such productivity growth figures for Chinese hospitals as this paper does nor for hospitals elsewhere. This raises the question which drives such substantial productivity growth results for Beijing hospitals. Are these growth estimates based on reliable data? Authors should discuss this issue. There are hints in the paper that part of the explanation might be in that hospitals have succeeded to induce demand for services where profit margins were highest—drugs and high-tech tests—even if the services are medically unnecessary. This could easily be explored carrying out productivity analyses with different output and input variables and comparing the productivity change figures obtained with different specifications. Particularly important would be to consider how the output variable total revenue affects results for productivity growth.

3. The section on the impact of inflation on the efficiency and productivity needs to be revised. At the present the section on the impact of inflation is somewhat confusing. Adjusting for inflation affects both on the input variables as well as output variables. Inflation should always be taken into account. Input and output variables should preferably be such that they reflect the volume of inputs and the volume of outputs. If monetary figures are used as output or input variables they should be adjusted for inflation by using a suitable price index. For elimination of the impact of inflation on inputs one needs an inflation measure that reflects the prices of inputs. However, in the paper has used consumer price index for deflating expenditure for inputs and total revenue. Does the use these indices eliminate the impact of inflation on revenue and expenditure figures correctly? This should at the very least be discussed in the paper.
Minor essential Revisions.

4. The paper uses expressions and terms which are somewhat odd or unfamiliar. For instance, authors use the term 'actual number of open beds.' Does this differ in some way from the number of beds? Does the term 'bed utility rate' mean bed occupancy rate? At present, many details which are important for understanding how the study is carried out are missing. For instance, the paper presents formulas for which no explanation is given for the symbols used in the formulas.

5. Some of the statements made in the paper are unclear and hard to understand. For instance, what is meant by the following sentence on page 12: “… the comparison at least reelects one fact that China can enlarge dual referral coverage between hospitals and community health service centers. Some statements are too categorical. An example of these is the statement made in the paper that the main differences of the two analyzes are that SFA needs to construct a functional form of the efficient frontier and limits to single output. If one uses a cost functions approach in SFA for estimating efficiency, one can have multiple outputs.

Discretionary Revisions

6. The paper could have more comparison with other studies on productivity development of Chinese hospitals so readers could have a better idea how exceptional the results presented in the paper are.

7. The presentation of the results is not very illustrative. Authors should consider the use of figures instead of presenting a large number of numbers in the text.

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

Quality of written English: Not suitable for publication unless extensively edited

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.