Reviewer's report

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

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Reviewer: Jason Coupet

Reviewer's report:

The authors in this study measure the relative efficiency of 3rd-level hospitals in Beijing, then assess changes in efficiency using the Malmquist Index, controlling for inflation.

1) There have been several other DEA studies assessing efficiency in Chinese hospitals, but the study makes an important contribution by highlighting the role inflation can play on TRP estimation.

Discretionary Revisions

2) That inputs are substitutable is a major assumption of Data Envelopment Analysis, but it turns out that in hospitals, they rarely are (D. T. Barnum, Walton, Shields, & Schumock, 2011). The authors can test for this by regressing inputs against each other. If inputs are not substitutable, fixed proportion analysis might yield more precise results (D. Barnum & Gleason, 2011). In a study where the authors deem the sample size large enough to make major claims, this is an important step.

Major Revisions

3) The authors state that low technical efficiency is closely associated with human resources, like management competence, but it is not clear how they gathered this specific source of inefficiency from the data. The paper spends significant time discussing these managerial issues, so it should be clear how the data informs these specifics. This problem defines the discussion section quite a bit, and should be remedied.

4) The authors spend some time discussing the inefficiency of the dual manager/doctor role. DEA seems to have little role in informing this discussion except that technical efficiency diminished. If it is only that this could be a source of inefficiency, this discussion should be rephrased as such.

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

Quality of written English: Acceptable
**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.