Reviewer's report

Title: Measuring and Explaining Mortality in Dutch hospitals; the Hospital Standardized Mortality Rate between 2003 and 2005

Version: 3 Date: 28 February 2008

Reviewer: Yu-Kang Tu

Reviewer's report:

Many thanks for addressing my previous comments, and I think this revised paper has been improved substantially.

- Major Compulsory Revisions

The last sentence on Page 11. The interpretation of negative covariance between random intercepts and slopes is not correct unless the variable Year has been centered. This is known as the problem of testing the relationship between change and initial value. The correct way to test it is to center Year, i.e. year 2003 to 2005 needs to be coded as, for example, -1, 0 and 1, and then testing the covariance/correlation between two random effects would be an appropriate test for the relationship between initial HSMR and change in HSMR. Please see the following papers for details.


- Minor Essential Revisions

1. Please consider revising the following sentence on page 6 of first paragraph: The national HSMR for the benchmark year is 100 by definition, and an HSMR significantly higher than 100 indicates that the hospital’s death rate is higher than if its patients had average mortality rates.

2. Table 4 is not discussed nor mentioned in the text.

- Discretionary Revisions

None.

What next?
Based on your assessment of the validity of the manuscript, what do you advise should be the next step?

- Accept after minor essential revisions (which the authors can be trusted to make)

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

- None