

DOCTORAL THESIS

Three essays on treatment quality: theory, measures and application in the hospital sector in China

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ABSTRACT

This thesis investigates the treatment quality of medical services in the hospital sector from different angles: theory, measures and application in China. This thesis includes three essays. The first essay (Chapter 2) is a critical review about the quality assessment. It shows that the environmental performance index is suitable for measuring treatment quality. The second essay (Chapter 3) introduces alternative approaches to environmental performance indices to solve the infeasibility problem of current measures. Environmental performance indices are measures to evaluate the production of undesirable outputs relative to desirable outputs. My new measures are more accurate using the sequential frontier and various reference vectors. The last essay (Chapter 4) is an empirical case study in the Chinese hospital sector that examines how the degree of government involvement and the degree of market competition affect the performance of treatment quality. Using the environmental performance indices of Essay 2 to evaluate treatment quality, I find that the performance of treatment quality of Chinese hospitals improved during the 2009-2014 period. Therefore, the marketisation of hospitals and government subsidies contribute to this sustained improvement.

Keywords: *hospital sector, treatment quality, environmental performance index, undesirable outputs, marketisation, government subsidies*

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