How Did Hospitals Respond to Prospective Payment System under the Japanese Universal Healthcare System?

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This research evaluates performances of Japan's inpatient prospective payment system (PPS) in terms of the impacts on medical payment, operational efficiency, and healthcare quality. We focus on a group of hospitals enrolled mandatorily into the program in 2003, for which the change in reimbursement method is an exogenous shock. Applying difference-in-difference approach to a set of nationally representative datasets, we find evidence that the PPS does not contain the medical costs as expected, because the program is adopted only to part of procedures in inpatient care and has no interference with those in outpatient care. The hospitals could respond in a "real" fashion—reduce volume of the procedures paid PPS to avoid deficit; or in a "nominal" fashion—assign the procedures paid PPS from inpatient care to outpatient care. We also find a decline of length of stay (LOS) among the hospitals enrolled in the program, indicating an improvement on operational efficiency. The reduction is larger at upper quantiles of the LOS. Finally, we confirm a moderate deterioration in healthcare quality. Following the program adoption, the hospitals become more likely to discharge patients with symptoms lightened or unchanged, rather than being fully cured.

Key words: prospective payment system, hospital response, operational efficiency, healthcare quality, difference-in-difference

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