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Performance measures, reimbursement and behaviour of public health care providers in New Zealand

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Abstract

This dissertation contains three empirical studies that examine the performance measures, reimbursement and behaviour of New Zealand public health care providers, the district health boards (DHBs).

The first essay investigates whether highly skilled health care providers are at a disadvantage because they attract difficult cases, by examining over 10 million publicly funded patient discharges in New Zealand during the period from 1999 to 2011. Using a patient’s transfer status and the complexity and comorbidity level (CCL) indicator as the measure of task difficulty, I calculate the effects of task difficulty on performance indicators such as the length of hospital stay, and the probabilities of 30-day mortality and readmission while controlling for potential endogeneity. The results confirm that this disadvantage does exist. Transferred patients stay in hospital longer, and have higher probabilities of 30-day mortality and 30-day readmission. Overall, patients assigned to higher level of complexity and comorbidity indicators also have longer hospital stays and higher probabilities of mortality and readmission.

The second essay examines how the public health care providers in New Zealand responded to the system reform that reintroduced a capitation scheme, which pays providers a fixed amount per enrollee, regardless of the actual service usage per enrollee. I find that the new capitation scheme decreased the movement of patients between districts, especially those whose conditions are more severe. The results indicate that sicker patients are less likely to be treated by specialist providers since the reform. Overall, the decrease in inter-district movement seems to have negative effects on health outcomes.
The third essay examines the capitation funding system for New Zealand public health care providers, which allocates funds across districts based on the characteristics of district population. As the first step in understanding the adequacy of this payment system, this research examines how the actual usage by patients is associated with the funding, which is computed based on the characteristics of population. To examine the relation, I regress the government funding received by the DHBs on the characteristics of the population who actually received treatment over the period of 2003 to 2011. I find that the usage of health care services by certain population groups is higher than their population share.
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