

Capacity in Thai Public Hospitals and the Production of Care for Poor and Nonpoor Patients

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Objective. To assess the capacity of Thai public hospitals to proportionately expand services to both the poor and the nonpoor. This is accomplished by measuring the production of services provided to poor, relative to nonpoor, patients and the plant capacity of individual public hospitals to care for the patient load.

Study Setting. Thai public hospitals operating in 1999, following the economic crisis when public hospitals were required to treat all patients irrespective of ability to pay.

Study Design and Data Collection. Input and output data for 68 hospitals were collected using databases and questionnaire surveys. A distinction was made between inpatient and outpatient services to both poor and nonpoor patients and the data were assessed statistically.

Data Analysis. Congestion and capacity indices to measure poor/nonpoor service trade-offs and capacity utilization were estimated. The analysis was undertaken by data envelopment analysis (DEA), a nonparametric linear programming approach used to derive efficiency and productivity estimates.

Principal Findings. Increases in the amount of services provided to poor patients did not reduce the amount of services to nonpoor patients. Overall, hospitals are producing services relatively close to their capacity given fixed inputs. Possible increases in capacity utilization amounted to 5 percent of capacity.

Conclusions. Results suggest that some increased public hospital care can be accomplished by reallocation of resources to less highly utilized hospitals, given the budgetary constraints. However, further expansion and increase in access to health services will require plant investments. The study illustrates how DEA methodologies can be used in planning health services in data constrained settings.

Key Words. Equity, hospital efficiency, plant capacity, DEA

Pressure to provide health care for the poor in Thailand has increased substantially since 1997. At that time, the Asian economic crisis led both to a rise in the overall number of Thais living in poverty, and to a reduction in government spending on hospital services. The crisis has affected both private and public hospitals. The impact on private providers has included increased debt, reduced demand, and increased costs of production (Lertiendumrong 2003).