

Hospital Strategies under "Quasi" Global Budget System

Yu-Hua Yan^{1*}, Shuo-Fen Hsu² and Shih-Chieh Fang³

^{1*} Department of Medical Research, Tainan Municipal Hospital, No.670, Chongde Rd., East Dist., Tainan City 701, Taiwan (R.O.C.)

² Department of Risk Management and Insurance, National Kaohsiung First University of Science and Technology, No.2, Zhuoyue Rd., Nanzi Dist., Kaohsiung City 811, Taiwan (R.O.C.)

³ Department of Business Administration and Institute of International Business, National Cheng Kung University, No.1, University Road, Tainan City 701, Taiwan (R.O.C.)

Introduction

We analyzed the strategies of the hospitals and characterized the equilibrium quantity, quality and cost-reducing efforts. In particular, the optimal utilization when national health care services is supplied by "symmetric hospitals whose cost and demand conditions are identical was compared with that when these "hospitals are contracted with government who plays an important role in the coordination and the monitoring of the unit value of medical service.

Aims

The purpose of this paper is to provide both theoretical and empirical analysis of the effect of hospital global budget cap policies.

Methods

The present study was descriptive with the objective to provide both theoretical and empirical analysis of the effect of hospital global budget cap policies. It adopted the questionnaire method with surface mail and personal distribution to the hospital superintendents or senior administrative staff in the district hospitals in Taiwan to fill out the questionnaire for data collection, statistical analysis, and discussion. The recruitment period was from November 15, 2006 to January 31, 2007 to distribute 244 questionnaires in 2.5 months. After retrieval of questionnaires and elimination of invalid ones, there were a total of 101 valid questionnaires with a retrieval rate of 41.39%.

Table 1 Descriptive statistic of sample hospitals

Type/item	Hospitals	%
Hospital accreditation level		
Medical center	14	13.86
Regional hospital	43	42.57
Community hospital	44	43.57
Hospital ownership		
Public hospital	26	25.74
Private hospital	46	45.54
Medical foundation hospital	29	28.71
BNHI branch		
Taipei	22	21.78
Northern	11	10.89
Central	24	23.76
Southern	16	15.84
Kao-ping	25	24.76
Eastern	3	2.97
Sickbeds		
1000 beds or above	13	12.87
500-999 beds	33	32.67
250-499 beds	18	17.82
249 beds or below	37	36.64

Note: n=101

Results

101 hospitals that participated in the self-management project (full model), an increasing trend in medical costs was observed in 82 institutions during 2006 and 2007. The results of the medical fees analysis on each variable under the self-management project showed significant negative influence in concurrence ($\beta = -0.475, P = 0.001$), significant negative influence in cost control effects ($\beta = -0.427, P = 0.004$), significant positive influence in cost shifting/spill-over effects ($\beta = 0.333, P = 0.361$) and significant positive influence in Technology improvement/ Supply increase ($\beta = 0.320, P = 0.283$). Compared to regional hospitals, negotiations by medical centers had more significance in negative influential effect on medical quality control ($\beta = -0.678, P < 0.01$); the identity factor by regional hospitals has more significant negative influential effect on cost control factors ($\beta = -0.75, P < 0.01$).

Table 2 Regression results

Factor	Expenditures							
	Full model(n=101)			Reduced model(n=82)				
	Beta	t-test	Prob.	Beta	t-test	Prob.	Prob.	
Concurrence	-0.475	-3.292	0.001	***	-0.544	-3.661	0.000	***
Negotiation	0.332	2.300	0.024	**	0.183	1.419	0.160	
Cost Control effects	-0.427	-2.960	0.004	***	-0.404	-3.125	0.003	***
Quality of Care control	-0.182	-1.264	0.210		-0.237	-1.854	0.068	*
Technology improvement/ Supply increase	0.333	2.307	0.023	**	0.361	2.803	0.006	***
Financing effects	0.050	0.343	0.732		0.095	0.719	0.475	
Cost Shifting/ Spill-over effects	0.320	2.214	0.029	**	0.283	2.172	0.033	**
Constant	20.182	140.55	0.000	***	20.443	154.11	0.000	***
			8					
Adjusted R-squared : 0.232			Adjusted R-squared : 0.299					
F-statistic : 5.262			F-statistic : 5.878					
Prob(F-statistic) : 0.000			Prob(F-statistic) : 0.000					

Note:

(1)*, **, *** represent 10%, 5% and 1% levels of significance.

(2) Expenditures: the claim reported of 2010.

(3) Reduce model: the sample is that the claim reported difference between 2009 and 2010 is positive.

Conclusions

In other words, hospitals are more willing to follow NHIB policies and goals, implementing various control measures to lower medical costs when the concurrence for the hospital self-management project is higher. A positive but insignificant effect was observed in the reduced model. When the hospitals have better negotiations with NHIB, the hospitals would set financial maximization as the goal; not only is the control for medical costs less active, the addition of various income strategies may be implemented to increase sourced of hospital income.