REFERENCES

American Heart Association (1999). Heart and stroke Statistical update, Dallas, Tex. American Heart Association, 1998.

Amrita Institute of Medical Sciences and Research Centre (1998). Special Chariable Projects. (online) Available from: http://www.imshospital.org/Pages/Special.html. [2001, January 24]

Cooft JB, et al. (1999). Heart Failure Survival Among Older Adults in The United States. A poor prognosis for an emerging epidemic in the Medicare population. Arch Intern Med.

Creese, A. and Parker, D. (1994). Cost Analysis in Primary Health Care: A training Manual for Program Managers.

Dabzibm Oatrucua N. (1982). Hospital Profits: the effects of Reimburse Policies. Journal of Health Economics 1 : 46.

Donalson, Dayl, Pannarunothai S, and Tangchareonsathien V. (1998). Health Financing in Thailand. Technical Report December 1998. Bangkok: Ministry of Public Health, Health Research System Institute, Management Sciences For Health.

Drummond, M.F., Stoddart, G.L., and Torrance, G.W. (1990). Method for the Economics Evaluation of Health Care Procrammes. 5th ed. Oxford University Press.

Health System Research Institute (1995). Comparative Health System Thailand. Ministry of Public Health.

Herrel, JH. (1980). Health Care Expenditures. The Approaching Crisis, Mayo Clin Proc, 55:705-710.

Hongaumpai, P. (1993). Factor of determining of budget allocation in Ministry of Public Health. M.Sc. Thesis, Chulalongkorn University.

Intajak, S. (1996). Cost and Benefit Analysis of Contraction out Primary Medical Care to Private Clinics under Social Security Scheme. M.Sc. Thesis, Chulalongkorn University.

Jaiyoudsrind, S. et al. (2001). Cost of Open-Heart Surgery Ratchawithi Hospital, Unpublished.

Khongsil, S. (1997). Catastrophic Illness and Catastrophic Insurance Development in Thailand.

Paediatric Cardiac Surgery Foundation (1999). Have a heart. (online) Available from. http://www.bangkokpost . net/out look we care/060799. Outlook 01.html. [2001, January 24]

Pornputichai, K. (1997). Cost Analysis of Bone Marrow Transplantation in Hematologic Disorders at Chulalongkorn Hospital. Thailand. M.Sc. Thesis, Chulalongkorn University.

Robert O'Rourke. (2000). Congenital heart Defect Corrective Surgery. (on line). Available from: http://www.nlm.nih. Gov/medineplus/ency/article/002948.htm. [2001, January 24]

Social Security Office. (1999). The fifth Physician Committee of Social Security Fund. Summary of Performance Reports. Unpublished.

Srivanitchalorn, S. et al. (1996). Health Service System in Thailand: Situation and Proposed for Development. Bangkok. Health System Research Institute.

Supachutikul, A. et al. (1993). Cost Analysis of Health Care Service. Bangkok. Health
System Research Institute.

Willian G, Wang. (2001). Minimally invasive heart surgery. (online) Available from:
http://www.n/m.nih. Gov/medineplus/ency/article/007012.htm [2001, January 24]

Yanggratoke, J. (2001). Hospital Charge Policy: A case study in Thailand Regional
Hospitals, Ph.D. Dissertation. National Institute of Development Administration.

Appendix

Correlations

		TYPHOS	LOS	SEX	AGE	SEVERSE	INTENSE	PTTYP	PROC
TYPHOS	Pearson Correlation	1	-0.056	-0.06	0.161	0.016	-0.299	-0.042	0.047
	Sig. (2-tailed)		0.09	0.07	0	0.632	0	0.212	0.153
	N	906	906	906	906	906	906	906	906
LOS	Pearson Correlation	-0.056	1	-0.077	-0.005	0.142	0.153	0.053	0.06
	Sig. (2-tailed)	0.09		0.02	0.889	0	0	0.109	0.07
	N	906	906	906	906	906	906	906	906
SEX	Pearson Correlation	-0.06	-0.077	1	-0.097	-0.025	-0.012	0.039	-0.158
	Sig. (2-tailed)	0.07	0.02		0.004	0.445	0.709	0.241	0
	N	906	906	906	906	906	906	906	906
AGE	Pearson Correlation	0.161	-0.005	-0.097	1	0.125	-0.097	-0.061	0.586
	Sig. (2-tailed)	0	0.889	0.004		0	0.003	0.065	0
	N	906	906	906	906	906	906	906	906
SEVERSE	Pearson Correlation	0.016	0.142	-0.025	0.125	1	0.218	-0.085	0.099
	Sig. (2-tailed)	0.632	0	0.445	0		0	0.01	0.003
	N	906	906	906	906	906	906	906	906
INTENSE	Pearson Correlation	-0.299	0.153	-0.012	-0.097	0.218	1	-0.03	-0.088
	Sig. (2-tailed)	0	0	0.709	0.003	0		0.373	0.008
	N	906	906	906	906	906	906	906	906
PTTYP	Pearson Correlation	-0.042	0.053	0.039	-0.061	-0.085	-0.03	1	0.011
	Sig. (2-tailed)	0.212	0.109	0.241	0.065	0.01	0.373		0.743
	N	906	906	906	906	906	906	906	906
PROC	Pearson Correlation	0.047	0.06	-0.158	0.586	0.099	-0.088	0.011	1
	Sig. (2-tailed)	0.153	0.07	0	0	0.003	0.008	0.743	
	N	906	906	906	906	906	906	906	906

Regression Model

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.792[a]	.627	.619	54287.00
2	.792[b]	.627	.619	54287.00

a. Predictors: (Constant), SEX, AGE1, AGE2, AGE3, LOS, SEVERSE1, SEVERE2, INTENSE1, INTENSE2, INTENSE3, PTTYP1, PTTYP2, PTTYP3, PROC1, PROC2, TYPHOS2, TYPHOS3

b. Predictors: (Constant), SEX, AGE1, AGE2, AGE3, LOS, SEVERSE2, SEVERSE3, INTENSE1, INTENSE3, INTENSE4, PTTYP1, PTTYP2 PTTYP3, PROC2, PROC3, TYPHOS2, TYPHOS3

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.39E+12	17	2.58E+11	87.641	.000
	Residual	2.66E+12	888	2946752881		
	Total	7.01E+12	905			
2	Regression	4.39E+12	17	2.58E+11	87.641	.000
	Residual	2.66E+12	888	2946752881		
	Total	7.01E+12	905			

b Dependent Variable: Inpatient Charge

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	47810.41	24586.349		1.945	0.052
	SEX	-5756.276	3812.044	-0.033	-1.51	0.131
	LOS	2376.239	69.899	0.727	33.996	0.000
	AGE1	-53418.198	7428.934	-0.211	-7.191	0.000
	AGE2	-35927.142	6805.454	-0.176	-5.279	0.000
	AGE3	-21867.628	5196.388	-0.114	-4.208	0.000
	SEVERSE1	-1662.872	5040.175	-0.009	-0.33	0.742
	SEVERSE2	-5419.462	5259.164	-0.028	-1.03	0.303
	INTENSE1	5166.608	13029.684	0.025	0.397	0.692
	INTENSE2	24108.184	13402.205	0.108	1.799	0.072
	INTENSE3	19294.466	18868.507	0.027	1.023	0.307
	PTTYP1	7479.354	7021.028	0.031	1.065	0.287
	PTTYP2	-8721.026	7296.26	-0.033	-1.195	0.232
	PTTYP3	19867.181	5672.508	0.112	3.502	0.000
	PROC1	-5456.087	18478.862	-0.031	-0.295	0.768
	PROC2	-3068.368	19248.744	-0.017	-0.159	0.873
	TYPHOS2	-25964.321	12010.674	-0.06	-2.162	0.031
	TYPHOS3	24664.373	8211.98	0.088	3.003	0.003

Dependent Variable: Inpatient Charge

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	64799.636	13775.106		4.704	0.000
	SEX	-5756.276	3812.044	-0.033	-1.51	0.131
	AGE1	-53418.198	7428.934	-0.211	-7.191	0.000
	AGE2	-35927.142	6805.454	-0.176	-5.279	0.000
	AGE3	-21867.628	5196.388	-0.114	-4.208	0.000
	LOS	2376.239	69.899	0.727	33.996	0.000
	SEVERSE2	-3756.59	4368.299	-0.019	-0.86	0.39
	SEVERSE3	1662.872	5040.175	0.008	0.33	0.742
	INTENSE1	-18941.577	5018.931	-0.091	-3.774	0.000
	INTENSE3	-4813.718	15589.612	-0.007	-0.309	0.758
	INTENSE4	-24108.184	13402.205	-0.041	-1.799	0.072
	PTTYP1	7479.354	7021.028	0.031	1.065	0.287
	PTTYP2	-8721.026	7296.26	-0.033	-1.195	0.232
	PTTYP3	19867.181	5672.508	0.112	3.502	0.000
	PROC2	2387.719	5491.164	0.013	0.435	0.664
	PROC3	5456.087	18478.862	0.006	0.295	0.768
	TYPHOS2	-25964.321	12010.674	-0.06	-2.162	0.031
	TYPHOS3	24664.373	8211.98	0.088	3.003	0.003

Dependent Variable: Inpatient Charge

Descriptive statistic of the variable in this study

1. Ordinary Open Heart

Type of hospital

Variables	N	Percentage of Operation
Regional hospitals	9	2.9
Special hospitals	2	0.6
University hospitals	297	96.4
Total	308	100

Intensity of illness

Variables	N	Percentage of Operation
One procedure	230	74.7
Two procedure	75	24.4
Three procedure	3	1.0
Four procedure	-	-
Total	308	100

2. Coronary Artery Bypass Graft

Type of hospital

Variables	N	Percentage of Operation
Regional hospitals	48	24.7
Special hospitals	28	14.4
University hospitals	118	60.8
Total	194	100

intensity of illness

Variables	N	Percentage of Operation
One procedure	121	62.4
Two procedure	47	24.2
Three procedure	8	4.1
Four procedure	18	9.3
Total	194	100

3. Complex Congenital Operation

Type of hospital

Variables	N	Percentage of Operation
Regional hospitals	4	1
Special hospitals	9	22
University hospitals	391	96.8
Total	404	100

Intensity of illness

Variables	N	Percentage of Operation
One procedure	347	85.9
Two procedure	51	12.6
Three procedure	3	0.7
Four procedure	3	0.7
Total	404	100

BIOGRAPHY

Name:	Nutinee Buntavong
Place and Date of Birth:	Tak (Thailand), 12 July 1967
Sex:	Female
Nationality:	Thai
Marital status:	Married
Education:	Diploma in Nursing and Midwifery:
	Equivalent to Bachelor of Science in Nursing
Occupation:	Government Office
	Health Insurance Office, Ministry of Public Health,
	Thailand
Addresses:	Office; Health Insurance Office
	Ministry of Public Health Nonthaburi 11000
	Home; 17/19/245 Soi Pinphapachom
	Tiwanon Road Muang District
	Nontaburi (Thailand) 11000