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APPENDICES

APPENDIX A**Variables in the Phil Health Claims Database****Table A. 1. Complete list of variables found in database**

PhilHealth Unified Claims Database			
Coding			
Variable Name	Variable Description	Code	Value Description
series	series number		
date_rec	Date claim was received for processing	dd-mm-yyyy	Date
chk_dt1	Check date was issued	dd-mm-yyyy	Date
mecno	Membership number		
patient	Patient type	MM	Member
		DD	Dependent
patlname	Patient last name		
patfname	Patient first name		
patmname	Patient middle name		
patage	Patient's age		
patsex	Patient's sex	M	Male
		F	Female
maddress	Member's address		
hos_code	Hospital code		
hos_name	Hospital name		
categ	Hospital Category	P	Primary
		S	Secondary
		T	Tertiary
prov	Province code		(separate file)
ill_code	Illness code		ICD 9 and ICD 10 codes
worker_t	Membership classification	G	Government
		S	Private
		I	Indigent
		N	Voluntary
med_case	Case type	O	Ordinary
		I	Intensive
		C	Catastrophic
b1_actua	Room and board actual cost		
b1_phic	Room and board PhilHealth Benefit		
b2_actua	Drugs and meds actual cost		
b2_phic	Drugs and meds PhilHealth benefit		
b3_actua	X-ray and labs actual cost		
b3_phic	X-ray and labs PhilHealth benefit		
b4_actua	Operating room actual cost		
b4_phic	Operating room PhilHealth benefit		
date_adm	Date of admission	dd-mm-yyyy	Date
date_dis	Date of discharge	dd-mm-yyyy	Date

pl_type	Type of doctor	D1	General practitioner
		D2	Specialist
		D3	Surgeon
		D4	Anesthesiologist
pl_code	Doctor code		
pl_lname	Doctor's last name		
pl_fname	Doctor's first name		
pl_mname	Doctor's middle name		
pl_actua	Professional fee actual amount		
pl_phic	Professional fee PhilHealth benefit		
pl_r_dat	Date paid	dd-mm-yyyy	Date
pl_rvu	Relative unit vale		
pl_rvs	Relative value scale		
Entries for physician (following the same sequence of information) is until 10 (p10_n...)			
pf_act	Professional fee actual cost		
pf	Professional PhilHealth benefit		
tot_amnt	PhilHealth benefit total		
actual	Total actual cost		
region	PhilHealth regional office where claim was filed	1	PRO I
		2	PRO II
		3	PRO III
		41	PRO IV-A
		41	PRO IV-B
		5	PRO V
		6	PRO VI
		7	PRO VII
		8	PRO VIII
		9	PRO IX
		10	PRO X
		11	PRO XI
		12	PRO XII
		13	PRO CAR
		14	PRO CARAGA
		99	NCR

APPENDIX B**Multiple regression analysis with log transformation****Table B. 1. Multiple regression model (Unit of analysis: individual entry)**

Variable	B	Std. Error	β	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
(Constant)	3.214	.004		774.334	.000		
log_age	.028	.001	.102	26.473	.000	.745	1.343
dum_dd	.012	.002	.021	5.661	.000	.791	1.265
dum_m	.002	.002	.003	.952	.341	.977	1.024
dum_p	.093	.002	.165	45.750	.000	.848	1.179
dum_sec	.118	.002	.238	53.649	.000	.562	1.780
dum_tert	.299	.003	.606	118.330	.000	.421	2.373
dum_int	.166	.002	.275	78.105	.000	.895	1.118
dum_cat	.239	.011	.073	21.737	.000	.988	1.012
dum_spri	.004	.003	.009	1.619	.106	.367	2.722
dum_gov	-.002	.003	-.004	-.857	.392	.432	2.317
dum_npay	.000	.004	.000	.069	.945	.646	1.548
SP_TOT	.045	.002	.086	22.066	.000	.727	1.376
rank_pov2	-.014	.003	-.027	-5.434	.000	.449	2.229
rank_pov3	-.012	.003	-.023	-4.772	.000	.475	2.107
rank_pov4	.016	.003	.021	4.987	.000	.625	1.599
rank_pov5	.029	.003	.040	8.713	.000	.537	1.862
R² = 0.459; Adjusted R² = 0.459; SE = 0.17701							
F = 2593.650; 16 and 48912 df; p = 0.000; n = 48929							
Dependent variable: Log total reimbursement							

Table B. 2. Multiple regression model (Unit of analysis: individual entry)

Variable	B	Std. Error	β	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
(Constant)	.505	.004		115.043	.000		
log_age	.001	.001	.003	.532	.595	.745	1.343
dum_dd	.004	.002	.008	1.798	.072	.790	1.265
dum_m	.000	.002	.000	-.028	.977	.977	1.024
dum_p	-.092	.002	-.194	-42.568	.000	.849	1.178
dum_sec	-.021	.002	-.052	-9.246	.000	.562	1.780
dum_tert	.039	.003	.095	14.614	.000	.421	2.373
dum_int	.108	.002	.214	48.296	.000	.895	1.118
dum_cat	.103	.013	.034	8.120	.000	.990	1.010
dum_spri	-.001	.003	-.003	-.433	.665	.367	2.723
dum_gov	-.013	.003	-.031	-4.869	.000	.432	2.317
dum_npay	-.015	.004	-.020	-3.850	.000	.646	1.548
SP_TOT	.010	.002	.023	4.573	.000	.727	1.376
rank_pov2	.002	.003	.004	.610	.542	.449	2.228
rank_pov3	.030	.003	.069	11.331	.000	.475	2.107
rank_pov4	.022	.003	.034	6.482	.000	.626	1.598
rank_pov5	.061	.004	.098	17.060	.000	.537	1.862
$R^2 = 0.139$; Adjusted $R^2 = 0.139$; SE = 0.18688 F = 493.068; 16 and 48847 df; p = 0.000; n = 48864 Dependent variable: Log length of stay							

Table B. 3. Multiple regression model (Unit of analysis: membership number)

Variable	B	Std. Error	β	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
(Constant)	3.596	.005		706.511	.000		
freq	-.013	.002	-.019	-5.119	.000	.980	1.020
prop_dd	-.001	.002	-.002	-.439	.661	.951	1.052
prop_fe	.002	.002	.004	.989	.323	.994	1.006
prop_tert	.205	.002	.420	107.798	.000	.848	1.179
prop_ord	-.171	.002	-.299	-79.323	.000	.907	1.102
prop_gov	-.095	.002	-.171	-44.256	.000	.860	1.163
dum_gov	.021	.003	.041	7.493	.000	.439	2.277
dum_nopay	.025	.004	.029	6.453	.000	.654	1.529
dum_prisec	.031	.003	.065	11.051	.000	.370	2.706
SP_TOT	-.001	.002	-.002	-.506	.613	.979	1.022
rank_pov2	-.007	.003	-.013	-2.369	.018	.421	2.378
rank_pov3	-.009	.003	-.018	-3.315	.001	.450	2.223
rank_pov4	.025	.003	.035	7.294	.000	.573	1.744
rank_pov5	.040	.004	.056	11.223	.000	.512	1.955
R² = 0.377; Adjusted R² = 0.376; SE = 0.18939 F = 2087.157; 14 and 48361 df; p = 0.000; n = 48376 Dependent variable: Log average reimbursement							

Table B. 4. Multiple regression model (Unit of analysis: membership number)

Variable	B	Std. Error	β	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
(Constant)	.502	.005		98.274	.000		
freq	.008	.002	.014	3.199	.001	.980	1.020
prop_dd	.011	.002	.021	4.935	.000	.950	1.052
prop_fe	-.001	.002	-.002	-.440	.660	.994	1.006
prop_tert	.055	.002	.132	28.704	.000	.848	1.179
prop_ord	-.106	.002	-.216	-48.563	.000	.908	1.102
prop_gov	.088	.002	.187	40.923	.000	.860	1.163
dum_gov	-.016	.003	-.035	-5.527	.000	.439	2.278
dum_nopay	-.015	.004	-.021	-3.941	.000	.654	1.530
dum_prisec	-.003	.003	-.008	-1.161	.246	.369	2.708
SP_TOT	-.003	.002	-.008	-1.895	.058	.979	1.022
rank_pov2	-.001	.003	-.002	-.355	.722	.421	2.376
rank_pov3	.030	.003	.068	10.686	.000	.450	2.223
rank_pov4	.017	.003	.027	4.902	.000	.574	1.743
rank_pov5	.054	.004	.088	14.911	.000	.512	1.955
R² = 0.131; Adjusted R² = 0.131; SE = 0.19010 F = 521.496; 14 and 48301 df; p = 0.000; n = 48316 Dependent variable: Log average length of stay							

Table B. 5. Multiple regression model (Unit of analysis: hospital)

Variable	B	Std. Error	β	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
(Constant)	3.468	.019		180.164	.000		
h_beds	.000	.000	.061	2.897	.004	.542	1.845
freq	.000	.000	.038	2.148	.032	.774	1.292
prop_dd	-.061	.014	-.071	-4.348	.000	.911	1.098
prop_fe	.025	.014	.028	1.764	.078	.988	1.012
prop_ind	-.015	.014	-.019	-1.096	.273	.812	1.232
prop_ord	-.208	.012	-.303	-17.385	.000	.797	1.255
prop_sp	.048	.012	.077	3.908	.000	.629	1.591
dum_sec	.144	.007	.380	20.537	.000	.709	1.411
dum_tert	.312	.012	.645	27.039	.000	.427	2.344
dum_hpri	.089	.007	.228	12.773	.000	.760	1.316
rank_pov2	-.005	.010	-.012	-.466	.641	.393	2.544
rank_pov3	.004	.010	.009	.387	.699	.441	2.268
rank_pov4	.028	.011	.062	2.573	.010	.418	2.394
rank_pov5	.001	.013	.002	.080	.936	.457	2.189
R² = 0.685; Adjusted R² = 0.682; SE = 0.10586 F = 201.756; 14 and 1298 df; p = 0.000; n = 1313 Dependent variable: Log average reimbursement							

Table B. 6. Multiple regression model (Unit of analysis: hospital)

Variable	B	Std. Error	β	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
(Constant)	.700	.022		31.329	.000		
h_beds	.000	.000	.161	5.101	.000	.542	1.845
freq	.000	.000	-.013	-.502	.616	.774	1.291
prop_dd	-.078	.016	-.117	-4.800	.000	.911	1.098
prop_fe	-.007	.016	-.010	-.442	.658	.988	1.012
prop_ind	-.014	.016	-.022	-.872	.383	.812	1.231
prop_ord	-.098	.014	-.185	-7.109	.000	.797	1.255
prop_sp	.004	.014	.009	.291	.771	.628	1.592
dum_sec	.021	.008	.071	2.587	.010	.709	1.411
dum_tert	.054	.013	.144	4.061	.000	.427	2.344
dum_hpri	-.111	.008	-.367	-13.778	.000	.760	1.316
rank_pov2	-.014	.012	-.044	-1.184	.237	.393	2.543
rank_pov3	.010	.012	.028	.813	.416	.441	2.268
rank_pov4	.003	.013	.009	.247	.805	.418	2.393
rank_pov5	.021	.015	.046	1.347	.178	.458	2.185
$R^2 = 0.302$; Adjusted $R^2 = 0.294$; SE = 0.12282 F = 40.048; 14 and 1297 df; p = 0.000; n = 1312 Dependent variable: Log average length of stay							

Table B. 7. Multiple regression model (Unit of analysis: province)

Variable	B	Std. Error	β	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
(Constant)	3.594	.117		30.726	.000		
admit	.000	.000	-.021	-.265	.792	.570	1.754
prop_gov	-.001	.000	-.153	-1.982	.052	.607	1.647
per_tert	.004	.001	.386	4.516	.000	.494	2.024
prop_dd	-.029	.075	-.027	-.392	.697	.760	1.316
prop_fem	-.108	.161	-.045	-.674	.503	.827	1.209
prop_ord	-.130	.036	-.256	-3.562	.001	.696	1.436
prop_ind	.009	.052	.012	.175	.861	.766	1.306
prop_sp	.275	.055	.436	5.033	.000	.480	2.082
rank_pov2	.040	.024	.170	1.684	.097	.354	2.828
rank_pov3	.027	.025	.100	1.096	.277	.431	2.318
rank_pov4	.039	.026	.128	1.487	.142	.489	2.046
rank_pov5	.015	.054	.021	.284	.777	.683	1.463
$R^2 = 0.762$; Adjusted $R^2 = 0.719$; SE = 0.06188 F = 17.612; 12 and 66 df; p = 0.000; n = 79 Dependent variable: Log average reimbursement							

Table B. 8. Multiple regression model (Unit of analysis: province)

Variable	B	Std. Error	β	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
(Constant)	.567	.096		5.931	.000		
admit	.000	.000	-.151	-1.262	.211	.570	1.754
prop_gov	.001	.000	.432	3.738	.000	.607	1.647
per_tert	.001	.001	.265	2.065	.043	.494	2.024
prop_dd	-.009	.061	-.015	-.150	.881	.760	1.316
prop_fem	-.097	.131	-.074	-.743	.460	.827	1.209
prop_ord	-.069	.030	-.250	-2.318	.024	.696	1.436
prop_ind	.005	.042	.013	.127	.900	.766	1.306
prop_sp	.038	.045	.110	.843	.402	.480	2.082
rank_pov2	.023	.019	.179	1.182	.241	.354	2.828
rank_pov3	.056	.020	.378	2.760	.007	.431	2.318
rank_pov4	.030	.021	.182	1.413	.162	.489	2.046
rank_pov5	.084	.044	.209	1.916	.060	.683	1.463
$R^2 = 0.464$; Adjusted $R^2 = 0.367$; SE = 0.05054 F = 4.769; 12 and 66 df; p = 0.000; n = 79 Dependent variable: Log average length of stay							

APPENDIX C

Multiple regression analyses with region as one of the variables

Table C. 1. Multiple regression model (Unit of analysis: individual entry)

Variable	B	SE	β	t	Sig	Collinearity Statistics	
						Tolerance	VIF
(Constant)	2645.457	58.778		45.007	0.000		
patage	11.153	0.353	0.121	31.609	0.000	0.736	1.358
dum dd	90.351	23.379	0.014	3.865	0.000	0.787	1.270
dum f	1.607	17.184	0.000	0.094	0.925	0.977	1.024
dum p	860.338	21.810	0.143	39.446	0.000	0.819	1.220
dum sec	675.177	24.090	0.127	28.027	0.000	0.524	1.908
dum tert	2641.815	27.230	0.501	97.020	0.000	0.405	2.470
dum ord	-1848.039	24.028	-0.297	-76.911	0.000	0.722	1.385
dum cat	4255.149	120.505	0.118	35.311	0.000	0.972	1.029
dum ind	-0.034	19.777	0.000	-0.002	0.999	0.743	1.347
dum npay	20.458	32.349	0.002	0.632	0.527	0.896	1.116
SP TOT	445.485	21.483	0.080	20.736	0.000	0.718	1.392
reg_2	57.651	81.351	0.003	0.709	0.479	0.719	1.390
reg_3	596.365	61.741	0.046	9.659	0.000	0.468	2.139
reg_5	-6.449	58.301	-0.001	-0.111	0.912	0.421	2.373
reg_6	349.139	56.846	0.031	6.142	0.000	0.420	2.378
reg_7	88.209	52.403	0.010	1.683	0.092	0.301	3.319
reg_8	418.509	63.746	0.029	6.565	0.000	0.543	1.842
reg_9	-65.846	57.989	-0.006	-1.135	0.256	0.447	2.238
reg_10	237.311	52.423	0.027	4.527	0.000	0.298	3.358
reg_11	187.559	51.260	0.025	3.659	0.000	0.227	4.403
reg_12	338.256	52.809	0.039	6.405	0.000	0.295	3.391
reg_13	984.019	72.827	0.057	13.512	0.000	0.612	1.633
reg_14	141.567	67.516	0.009	2.097	0.036	0.567	1.763
reg_41	249.812	56.688	0.023	4.407	0.000	0.402	2.488
reg_42	396.599	58.923	0.033	6.731	0.000	0.445	2.246
reg_99	697.022	51.717	0.088	13.478	0.000	0.254	3.941
$R^2 = 0.433$; Adjusted $R^2 = 0.433$; SE = 1943.734 F = 1543.606; 26 and 52451 df; p = 0.000; n = 52478 Dependent variable: Total reimbursement							
Less outliers: $R^2 = 0.518$; Adjusted $R^2 = 0.518$; SE = 1269.096							

Table C. 2. Multiple regression model (Unit of analysis: individual entry)

Variable	B	SE	β	t	Sig	Collinearity Statistics	
						Tolerance	VIF
(Constant)	4.262	0.063		67.643	0.000		
patage	0.003	0.000	0.035	7.365	0.000	0.736	1.358
dum dd	0.072	0.025	0.013	2.886	0.004	0.787	1.270
dum f	-0.033	0.018	-0.007	-1.779	0.075	0.977	1.024
dum p	-0.874	0.023	-0.169	-37.385	0.000	0.819	1.220
dum sec	-0.032	0.026	-0.007	-1.237	0.216	0.524	1.908
dum tert	0.521	0.029	0.115	17.864	0.000	0.405	2.470
dum ord	-1.112	0.026	-0.208	-43.152	0.000	0.722	1.385
dum cat	0.975	0.129	0.031	7.548	0.000	0.972	1.029
dum ind	-0.054	0.021	-0.012	-2.562	0.010	0.743	1.347
dum npay	-0.076	0.035	-0.010	-2.206	0.027	0.896	1.116
SP TOT	0.076	0.023	0.016	3.308	0.001	0.718	1.392
reg 2	0.275	0.087	0.015	3.151	0.002	0.719	1.390
reg 3	0.871	0.066	0.079	13.162	0.000	0.468	2.139
reg 5	0.267	0.063	0.027	4.267	0.000	0.421	2.373
reg 6	0.134	0.061	0.014	2.206	0.027	0.420	2.378
reg 7	0.355	0.056	0.047	6.324	0.000	0.301	3.319
reg 8	0.271	0.068	0.022	3.959	0.000	0.543	1.842
reg 9	0.421	0.062	0.041	6.768	0.000	0.447	2.238
reg 10	0.359	0.056	0.048	6.397	0.000	0.298	3.358
reg 11	0.546	0.055	0.085	9.931	0.000	0.227	4.403
reg 12	0.269	0.057	0.036	4.755	0.000	0.295	3.391
reg 13	1.282	0.078	0.086	16.415	0.000	0.612	1.633
reg 14	0.238	0.072	0.018	3.291	0.001	0.567	1.763
reg 41	0.256	0.061	0.027	4.214	0.000	0.402	2.488
reg 42	0.083	0.063	0.008	1.307	0.191	0.445	2.246
reg 99	0.840	0.055	0.123	15.152	0.000	0.254	3.941
$R^2 = 0.122$; Adjusted $R^2 = 0.122$; SE = 2.084 F = 280.151; 26 and 52451 df; p = 0.000; n = 52478 Dependent variable: Length of stay							
Less outliers: $R^2 = 0.168$; Adjusted $R^2 = 0.167$; SE = 1.258							

Table C.3. Multiple regression model (Unit of analysis: membership number)

Variable	B	SE	β	t	Sig	Collinearity Statistics	
						Tolerance	VIF
(Constant)	4888.947	62.352		78.409	0.000		
freq	-123.243	26.844	-0.017	-4.591	0.000	0.975	1.026
prop_dd	-153.839	24.315	-0.024	-6.327	0.000	0.913	1.095
prop_fe	45.650	19.193	0.009	2.378	0.017	0.993	1.007
prop_tert	2065.138	21.064	0.390	98.041	0.000	0.828	1.207
prop_ord	-2198.732	25.742	-0.353	-85.415	0.000	0.769	1.301
prop_gov	-809.625	24.346	-0.135	-33.255	0.000	0.802	1.247
dum_ind	-191.279	31.619	-0.026	-6.049	0.000	0.724	1.381
dum_nopay	-25.760	37.974	-0.003	-0.678	0.498	0.835	1.198
dum_prisec	-15.682	23.404	-0.003	-0.670	0.503	0.653	1.531
SP_TOT	-17.776	18.823	-0.003	-0.944	0.345	0.972	1.029
reg_2	58.608	88.310	0.003	0.664	0.507	0.696	1.438
reg_3	889.613	67.634	0.072	13.153	0.000	0.438	2.284
reg_5	92.266	66.660	0.008	1.384	0.166	0.447	2.236
reg_6	548.960	62.946	0.049	8.721	0.000	0.409	2.448
reg_7	352.414	59.002	0.040	5.973	0.000	0.300	3.333
reg_8	433.708	71.497	0.030	6.066	0.000	0.536	1.867
reg_9	126.649	64.685	0.011	1.958	0.050	0.436	2.294
reg_10	350.436	58.966	0.040	5.943	0.000	0.293	3.414
reg_11	292.446	57.402	0.038	5.095	0.000	0.239	4.191
reg_12	480.645	59.214	0.054	8.117	0.000	0.300	3.335
reg_13	1147.779	80.943	0.066	14.180	0.000	0.606	1.651
reg_14	158.714	75.518	0.010	2.102	0.036	0.567	1.765
reg_41	403.276	63.048	0.038	6.396	0.000	0.382	2.619
reg_42	622.770	65.656	0.052	9.485	0.000	0.430	2.323
reg_99	902.596	57.576	0.116	15.677	0.000	0.241	4.155
$R^2 = 0.365$; Adjusted $R^2 = 0.365$; SE = 2076.125 F = 1111.385; 25 and 48359 df; p = 0.000; n = 48385 Dependent variable: Average reimbursement							
Less outliers: $R^2 = 0.441$; Adjusted $R^2 = 0.440$; SE = 1368.248							

Table C. 4. Multiple regression model (Unit of analysis: membership number)

Variable	B	SE	β	t	Sig	Collinearity Statistics	
						Tolerance	VIF
(Constant)	3.479	0.064		54.490	0.000		
freq	0.002	0.027	0.000	0.089	0.929	0.975	1.026
prop dd	-0.013	0.025	-0.002	-0.517	0.605	0.913	1.095
prop fe	-0.022	0.020	-0.005	-1.115	0.265	0.993	1.007
prop tert	0.519	0.022	0.113	24.082	0.000	0.828	1.207
prop ord	-1.186	0.026	-0.220	-44.978	0.000	0.769	1.301
prop gov	0.861	0.025	0.165	34.550	0.000	0.802	1.247
dum ind	0.085	0.032	0.013	2.612	0.009	0.724	1.381
dum nopay	-0.020	0.039	-0.002	-0.522	0.602	0.835	1.198
dum_prisec	0.064	0.024	0.014	2.668	0.008	0.653	1.531
SP TOT	-0.018	0.019	-0.004	-0.953	0.341	0.972	1.029
reg_2	0.253	0.090	0.014	2.798	0.005	0.696	1.438
reg_3	0.932	0.069	0.087	13.460	0.000	0.438	2.284
reg_5	0.371	0.068	0.035	5.434	0.000	0.447	2.236
reg_6	0.182	0.064	0.019	2.831	0.005	0.409	2.448
reg_7	0.460	0.060	0.060	7.613	0.000	0.300	3.333
reg_8	0.305	0.073	0.024	4.165	0.000	0.536	1.867
reg_9	0.492	0.066	0.048	7.430	0.000	0.436	2.294
reg_10	0.380	0.060	0.050	6.292	0.000	0.293	3.414
reg_11	0.617	0.059	0.092	10.501	0.000	0.239	4.191
reg_12	0.324	0.061	0.042	5.338	0.000	0.300	3.335
reg_13	1.289	0.083	0.086	15.557	0.000	0.606	1.651
reg_14	0.285	0.077	0.021	3.684	0.000	0.567	1.765
reg_41	0.289	0.065	0.031	4.475	0.000	0.382	2.619
reg_42	0.120	0.067	0.012	1.780	0.075	0.430	2.323
reg_99	0.880	0.059	0.130	14.927	0.000	0.241	4.155
$R^2 = 0.113$; Adjusted $R^2 = 0.112$; SE = 2.126 F = 245.884; 25 and 48359 df; p = 0.000; n = 48385 Dependent variable: Average length of stay							
Less outliers: $R^2 = 0.158$; Adjusted $R^2 = 0.157$; SE = 1.277							

Table C. 5. Multiple regression model (Unit of analysis: hospital)

Variable	B	SE	β	t	Sig	Collinearity Statistics	
						Tolerance	VIF
(Constant)	4385.295	159.671		27.465	0.000		
h_beds	1.730	0.361	0.100	4.799	0.000	0.540	1.851
freq	0.549	0.397	0.025	1.386	0.166	0.736	1.358
prop_dd	-354.186	112.511	-0.051	-3.148	0.002	0.884	1.131
prop_fe	120.087	111.981	0.017	1.072	0.284	0.973	1.028
prop_ord	-1837.916	125.147	-0.335	-14.686	0.000	0.453	2.206
prop_ind	-229.064	116.693	-0.035	-1.963	0.050	0.745	1.343
prop_sp	262.129	97.942	0.052	2.676	0.008	0.625	1.599
dum_prim	-799.351	56.720	-0.259	-14.093	0.000	0.697	1.434
dum_tert	1711.532	81.817	0.441	20.919	0.000	0.530	1.886
dum_hpri	625.751	56.261	0.201	11.122	0.000	0.721	1.386
reg_2	-144.028	146.852	-0.019	-0.981	0.327	0.617	1.622
reg_3	230.143	134.036	0.046	1.717	0.086	0.322	3.105
reg_5	-237.587	140.481	-0.038	-1.691	0.091	0.457	2.190
reg_6	-118.714	143.291	-0.017	-0.828	0.408	0.578	1.731
reg_7	-370.603	135.752	-0.059	-2.730	0.006	0.512	1.953
reg_8	-198.869	149.861	-0.027	-1.327	0.185	0.572	1.748
reg_9	-408.685	149.158	-0.053	-2.740	0.006	0.619	1.615
reg_10	93.826	137.242	0.016	0.684	0.494	0.431	2.323
reg_11	-12.208	140.504	-0.002	-0.087	0.931	0.388	2.579
reg_12	113.765	141.776	0.018	0.802	0.422	0.464	2.155
reg_13	366.389	174.512	0.042	2.100	0.036	0.593	1.685
reg_14	-81.361	163.695	-0.010	-0.497	0.619	0.577	1.733
reg_41	100.819	128.142	0.018	0.787	0.432	0.434	2.303
reg_42	-16.572	134.058	-0.003	-0.124	0.902	0.507	1.972
reg_99	-39.968	119.685	-0.009	-0.334	0.738	0.354	2.826
$R^2 = 0.697$; Adjusted $R^2 = 0.691$; SE = 837.095 F = 118.585; 25 and 1287 df; p = 0.000; n = 1313 Dependent variable: Average reimbursement							
Less outliers: $R^2 = 0.795$; Adjusted $R^2 = 0.790$; SE = 575.626							

Table C. 6. Multiple regression model (Unit of analysis: hospital)

Variable	B	SE	β	t	Sig	Collinearity Statistics	
						Tolerance	VIF
(Constant)	6.350	0.292		21.729	0.000		
h_beds	0.004	0.001	0.206	6.242	0.000	0.540	1.852
freq	-0.001	0.001	-0.049	-1.740	0.082	0.736	1.358
prop_dd	-1.456	0.206	-0.183	-7.074	0.000	0.884	1.132
prop_fe	-0.700	0.205	-0.084	-3.409	0.001	0.973	1.028
prop_ord	-1.328	0.229	-0.209	-5.802	0.000	0.453	2.206
prop_ind	-0.463	0.213	-0.061	-2.168	0.030	0.745	1.342
prop_sp	-0.054	0.179	-0.009	-0.301	0.764	0.625	1.600
dum_prim	-0.149	0.104	-0.042	-1.435	0.151	0.697	1.435
dum_tert	0.062	0.150	0.014	0.415	0.678	0.530	1.886
dum_hpri	-1.075	0.103	-0.298	-10.442	0.000	0.721	1.386
reg_2	0.183	0.269	0.021	0.680	0.496	0.617	1.622
reg_3	0.587	0.245	0.102	2.395	0.017	0.322	3.105
reg_5	0.449	0.257	0.063	1.746	0.081	0.457	2.190
reg_6	-0.184	0.262	-0.022	-0.700	0.484	0.578	1.731
reg_7	0.227	0.248	0.031	0.913	0.362	0.512	1.953
reg_8	0.210	0.274	0.025	0.765	0.444	0.572	1.747
reg_9	0.232	0.273	0.026	0.851	0.395	0.619	1.615
reg_10	0.507	0.251	0.075	2.021	0.043	0.431	2.323
reg_11	0.618	0.257	0.094	2.404	0.016	0.388	2.579
reg_12	0.365	0.259	0.050	1.406	0.160	0.464	2.155
reg_13	0.883	0.319	0.087	2.765	0.006	0.593	1.685
reg_14	0.130	0.299	0.014	0.433	0.665	0.577	1.733
reg_41	0.298	0.234	0.047	1.272	0.204	0.434	2.303
reg_42	0.059	0.245	0.008	0.240	0.810	0.507	1.972
reg_99	0.404	0.219	0.075	1.841	0.066	0.355	2.818
$R^2 = 0.243$; Adjusted $R^2 = 0.228$; SE = 1.531 F = 16.477; 25 and 1286 df; p = 0.000; n = 1312 Dependent variable: Average length of stay							
Less outliers: $R^2 = 0.417$; Adjusted $R^2 = 0.406$; SE = 0.759							

Table C. 7. Multiple regression model (Unit of analysis: province)

Variable	B	SE	β	t	Sig	Collinearity Statistics	
						Tolerance	VIF
(Constant)	4687.099	1021.008		4.591	0.000		
pov. inc	-6.462	5.407	-0.106	-1.195	0.238	0.354	2.828
cases	0.002	0.007	0.031	0.345	0.731	0.345	2.902
prop gov	-3.629	2.261	-0.131	-1.605	0.115	0.417	2.400
per tert	40.777	7.787	0.524	5.237	0.000	0.277	3.614
prop_dd	-755.651	606.467	-0.083	-1.246	0.219	0.618	1.618
prop_fem	-161.881	1233.543	-0.008	-0.131	0.896	0.680	1.472
prop_ord	-2401.218	829.526	-0.587	-2.895	0.006	0.067	14.873
prop_ind	658.337	463.119	0.104	1.422	0.161	0.520	1.923
prop_sp	1511.376	439.842	0.298	3.436	0.001	0.367	2.725
class1	250.861	158.833	0.134	1.579	0.121	0.385	2.596
class3	-163.454	216.376	-0.064	-0.755	0.454	0.391	2.556
class4	99.056	272.670	0.028	0.363	0.718	0.451	2.217
reg_2	284.908	346.551	0.068	0.822	0.415	0.407	2.455
reg_3	1078.977	530.781	0.332	2.033	0.048	0.103	9.664
reg_5	469.663	494.038	0.135	0.951	0.346	0.137	7.279
reg_6	220.875	310.078	0.063	0.712	0.480	0.349	2.867
reg_7	364.896	419.405	0.087	0.870	0.389	0.278	3.596
reg_8	887.291	376.489	0.255	2.357	0.022	0.237	4.227
reg_9	613.841	361.921	0.146	1.696	0.096	0.373	2.678
reg_10	734.995	461.044	0.211	1.594	0.117	0.158	6.339
reg_11	749.454	554.032	0.155	1.353	0.182	0.210	4.770
reg_12	970.691	500.730	0.256	1.939	0.058	0.158	6.319
reg_13	1359.637	549.909	0.391	2.472	0.017	0.111	9.018
reg_14	793.052	516.902	0.189	1.534	0.131	0.183	5.462
reg_41	480.303	425.966	0.100	1.128	0.265	0.355	2.820
reg_42	1013.119	391.108	0.291	2.590	0.013	0.219	4.562
reg_99	145.651	515.694	0.025	0.282	0.779	0.358	2.793
$R^2 = 0.864$; Adjusted $R^2 = 0.790$; SE = 430.720 F = 11.567; 27 and 49 df; p = 0.000; n = 77 Dependent variable: Average reimbursement							

Table C. 8. Multiple regression model (Unit of analysis: province)

Variable	B	SE	β	t	Sig	Collinearity Statistics	
						Tolerance	VIF
(Constant)	5.687	0.864		6.580	0.000		
pov. inc	-0.002	0.005	-0.068	-0.525	0.602	0.354	2.828
cases	0.000	0.000	0.149	1.139	0.260	0.345	2.902
prop gov	-0.006	0.002	0.344	2.883	0.006	0.417	2.400
per tert	0.015	0.007	0.336	2.297	0.026	0.277	3.614
prop dd	-0.394	0.513	-0.075	-0.768	0.446	0.618	1.618
prop fem	-1.218	1.044	-0.109	-1.166	0.249	0.680	1.472
prop ord	-3.236	0.702	-1.368	-4.609	0.000	0.067	14.873
prop ind	0.021	0.392	0.006	0.054	0.957	0.520	1.923
prop sp	-0.508	0.372	-0.173	-1.364	0.179	0.367	2.725
class1	0.138	0.134	0.127	1.024	0.311	0.385	2.596
class3	-0.211	0.183	-0.142	-1.153	0.255	0.391	2.556
class4	0.232	0.231	0.115	1.006	0.319	0.451	2.217
reg 2	0.410	0.293	0.169	1.398	0.168	0.407	2.455
reg 3	1.628	0.449	0.867	3.625	0.001	0.103	9.664
reg 5	1.164	0.418	0.578	2.785	0.008	0.137	7.279
reg 6	-0.419	0.262	-0.208	-1.598	0.117	0.349	2.867
reg 7	0.557	0.355	0.229	1.568	0.123	0.278	3.596
reg 8	0.663	0.319	0.329	2.080	0.043	0.237	4.227
reg 9	0.553	0.306	0.227	1.805	0.077	0.373	2.678
reg 10	0.983	0.390	0.488	2.519	0.015	0.158	6.339
reg 11	1.445	0.469	0.518	3.080	0.003	0.210	4.770
reg 12	0.869	0.424	0.397	2.051	0.046	0.158	6.319
reg 13	2.317	0.465	1.151	4.978	0.000	0.111	9.018
reg 14	1.036	0.438	0.426	2.369	0.022	0.183	5.462
reg 41	0.634	0.361	0.227	1.758	0.085	0.355	2.820
reg 42	0.775	0.331	0.385	2.341	0.023	0.219	4.562
reg 99	0.313	0.436	0.092	0.718	0.476	0.358	2.793

$R^2 = 0.710$; Adjusted $R^2 = 0.550$; SE = 0.365
F = 4.438; 27 and 49 df; p = 0.000; n = 77
Dependent variable: Average length of stay

APPENDIX D

Descriptive Statistics for ANOVA

Table D. 1. Descriptive statistics

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
						Lower Bound	Upper Bound			
tot_amnt	1.00	2041	4030.9170	2714.59445	60.08741	3913.0780	4148.7561	416.00	43695.00	
	2.00	833	3378.2242	2052.28847	71.10758	3238.6528	3517.7955	450.00	18024.75	
	3.00	2366	3948.1575	1949.76069	40.08427	3869.5535	4026.7614	.00	46450.00	
	5.00	2811	2956.5578	1558.51116	29.39541	2898.9191	3014.1966	320.00	27850.30	
	6.00	3018	5058.6158	3559.77529	64.79820	4931.5627	5185.6690	318.00	44575.00	
	7.00	5329	4102.7829	2770.76902	37.95574	4028.3741	4177.1917	270.00	39700.00	
	8.00	1838	4053.1224	2982.58971	69.56980	3916.6782	4189.5666	120.00	21384.55	
	9.00	2700	3791.2070	2680.29576	51.58232	3690.0622	3892.3519	.00	33974.00	
	10.00	5130	3419.1686	2046.76877	28.57657	3363.1463	3475.1909	519.50	24175.40	
	11.00	7387	3289.7465	1793.98243	20.87296	3248.8295	3330.6635	.00	28591.50	
	12.00	5122	3448.0911	1622.29051	22.66777	3403.6526	3492.5296	240.00	18438.00	
	13.00	1218	3060.4207	1613.90232	46.24381	2969.6943	3151.1472	200.00	30845.50	
	14.00	1522	3108.9927	1761.97690	45.16405	3020.4023	3197.5831	370.00	20300.00	
	41.00	3236	4206.8922	2265.29098	39.82169	4128.8139	4284.9705	190.00	32380.00	
	42.00	2611	4251.0608	2340.39766	45.80219	4161.2485	4340.8731	220.00	34155.00	
	99.00	6570	5700.4765	3409.41378	42.06269	5618.0199	5782.9330	.00	50250.00	
	Total	53732	3975.9801	2583.49796	11.14530	3954.1353	3997.8250	.00	50250.00	
Model	Fixed Effects			2452.55197	10.58039	3955.2425	3996.7178			

		Random Effects				243.58034	3456.8009	4495.1594			718657.71370
LOS	1.00		2041	3.5238	2.26299	.05009	3.4255	3.6220	.00	31.00	
	2.00		833	3.5210	2.61465	.09059	3.3432	3.6988	.00	49.00	
	3.00		2366	3.7375	2.58848	.05322	3.6332	3.8419	.00	65.00	
	5.00		2811	3.0139	1.51722	.02862	2.9578	3.0700	.00	18.00	
	6.00		3018	4.0328	2.49027	.04533	3.9439	4.1217	.00	37.00	
	7.00		5329	3.4652	2.16284	.02963	3.4071	3.5233	.00	65.00	
	8.00		1838	3.5555	2.07243	.04834	3.4607	3.6503	.00	29.00	
	9.00		2700	3.6456	2.69327	.05183	3.5439	3.7472	.00	46.00	
	10.00		5130	3.2561	1.75144	.02445	3.2082	3.3041	.00	33.00	
	11.00		7387	3.1549	1.45772	.01696	3.1216	3.1881	.00	32.00	
	12.00		5122	2.9227	1.49420	.02088	2.8818	2.9636	1.00	33.00	
	13.00		1218	4.3062	2.12949	.06102	4.1865	4.4260	.00	33.00	
	14.00		1522	3.3160	1.64323	.04212	3.2334	3.3987	1.00	32.00	
	41.00		3236	3.3782	2.09268	.03679	3.3061	3.4504	.00	41.00	
	42.00		2611	3.1168	1.95616	.03828	3.0417	3.1919	.00	47.00	
	99.00		6570	4.1982	3.28005	.04047	4.1188	4.2775	.00	96.00	
	Total		53732	3.4687	2.22461	.00960	3.4498	3.4875	.00	96.00	
Model	Fixed Effects				2.18676	.00943	3.4502	3.4871			
	Random Effects					.12280	3.2069	3.7304			.18193

APPENDIX E

Charges profile across regions

Table F. 1. Charge profile distribution across regions of admissions in government primary hospitals

	NCR	CAR	I	II	III	VI-A	IV-B	V	VI	VII	VIII	IX	X	XI	XII	CARAGA
Number of hospitals	4	17	5	9	2	10	7	13	2	15	12	12	11	7	10	14
N	10	167	16	33	2	246	11	78	8	96	129	51	357	37	78	142
Room & Board Charge	318	600	524	449	456	620	569	510	505	596	652	587	486	318	600	524
Room & Board Reimbursed	314	600	437	441	418	620	566	487	491	590	479	527	480	314	600	437
Drugs Charge	784	1,079	1,366	523	686	948	776	452	647	822	906	1,214	619	784	1,079	1,366
Drugs Reimbursed	566	871	1,216	420	563	674	608	338	542	708	770	988	509	566	871	1,216
Dx Charge	243	338	273	255	188	140	261	77	209	388	282	349	175	243	338	273
Dx Reimbursed	192	288	224	177	130	140	187	32	136	281	205	242	152	192	288	224
PF Charge	434	750	460	450	522	450	481	400	476	514	578	517	450	434	750	460
PF Reimbursed	295	300	439	327	430	450	425	352	288	464	422	396	414	295	300	439
Total Reimbursement*	1,368	2,059	2,316	1,365	1,542	1,884	1,786	1,208	1,457	2,043	1,876	2,153	1,555	1,368	2,059	2,316
Total Charge*	1,778	2,767	2,622	1,678	1,852	2,158	2,104	1,439	1,837	2,321	2,417	2,668	1,730	1,778	2,767	2,622
LOS*	3.18	5.00	3.21	3.00	3.08	3.25	3.47	3.12	3.27	3.49	4.78	3.50	2.99	3.18	5.00	3.21
Charge/day	559	553	817	559	601	664	606	461	562	665	506	762	579	559	553	817

Table F. 2. Charge profile distribution across regions of admissions in government secondary hospitals

	NCR	CAR	I	II	III	VI-A	IV-B	V	VI	VII	VIII	IX	X	XI	XII	CARAGA
Number of hospitals	8	9	11	9	37	13	11	3	21	14	8	6	11	4	6	7
N	46	349	41	21	448	56	55	9	89	136	40	108	320	85	135	143
Room & Board Charge	1,579	1,134	717	786	996	889	812	1,296	734	908	688	1,240	913	973	1,018	896
Room & Board Reimbursed	988	1,119	709	771	941	847	690	1,296	719	832	683	1,030	877	973	1,018	896
Drugs Charge	2,477	1,903	874	332	1,296	1,541	1,208	1,030	683	859	820	1,089	1,452	1,107	1,076	987
Drugs Reimbursed	913	965	524	304	1,051	935	717	757	484	714	558	782	1,021	928	858	814
Dx Charge	1,010	483	487	184	476	589	419	343	302	277	184	321	471	363	464	309
Dx Reimbursed	455	389	261	149	433	439	307	297	277	246	151	280	403	311	422	292
PF Charge	1,243	706	376	414	646	659	598	717	462	483	507	599	546	555	613	516
PF Reimbursed	546	503	352	386	436	489	375	533	354	442	377	468	453	481	530	451
Total Reimbursement*	2,903	2,976	1,846	1,611	2,861	2,710	2,089	2,883	1,833	2,234	1,769	2,560	2,754	2,693	2,827	2,452
Total Charge*	6,309	4,227	2,454	1,717	3,422	3,678	3,037	3,385	2,181	2,526	2,199	3,250	3,382	2,997	3,170	2,708
LOS*	5.67	4.57	2.73	2.95	4.07	4.04	3.45	5.00	2.76	3.85	3.05	4.60	3.46	4.18	4.10	3.59
Charge/day	1,113	925	899	582	841	910	880	677	790	656	721	707	977	717	773	754

Table F. 3. Charge profile distribution across regions for admissions in government tertiary hospitals

	NCR	CAR	I	II	III	VI-A	IV-B	V	VI	VII	VIII	IX	X	XI	XII	CARAGA
Number of hospitals	20	1	7	2	7	5	1	6	3	4	2	2	5	4	1	4
N	159	12	77	28	250	39	8	260	10	47	9	9	228	297	64	97
Room & Board Charge	3,793	2,231	876	1,471	1,721	1,315	1,094	1,487	1,505	1,248	1,053	1,498	1,524	1,548	1,310	1,264
Room & Board Reimbursed	1,826	1,897	876	1,464	1,583	1,253	438	1,452	1,505	1,240	1,053	1,459	1,495	1,538	1,300	1,252
Drugs Charge	3,474	5,224	874	2,648	1,518	790	111	1,395	1,604	1,118	628	740	1,075	1,678	1,568	1,047
Drugs Reimbursed	1,412	2,062	744	1,761	1,347	696	72	1,051	740	802	506	604	957	1,236	1,223	926
Dx Charge	3,096	650	470	645	702	987	433	423	616	582	243	487	511	549	429	506
Dx Reimbursed	1,032	493	426	577	645	821	155	366	459	502	118	447	445	500	414	498
PF Charge	2,023	1,292	455	863	968	679	2,100	763	825	793	650	656	653	863	566	507
PF Reimbursed	666	933	425	677	631	514	619	633	675	693	567	561	527	681	530	423
Total Charge*	12,401	9,397	2,693	5,626	4,910	3,771	3,738	4,068	4,570	3,741	2,574	3,381	3,764	4,650	3,873	3,323
Total Reimbursement*	4,944	5,386	2,471	4,478	4,207	3,284	1,283	3,501	3,378	3,236	2,244	3,072	3,423	3,960	3,467	3,099
LOS*	5.66	5.17	2.36	4.07	4.67	3.72	4.38	3.93	3.90	3.38	3.00	4.00	4.07	4.24	3.78	3.31
Charge/day	2,191	1,818	1,141	1,382	1,051	1,014	853	1,035	1,172	1,107	858	845	925	1,097	1,025	1,004

Table F. 4. Charge profile distribution across regions of admissions in private primary hospitals

	NCR	CAR	I	II	III	VI-A	IV-B	V	VI	VII	VIII	IX	X	XI	XII	CARAGA
Number of hospitals	15	7	22	11	20	11	13	33	5	10	6	12	35	60	32	15
N	74	195	254	152	90	44	57	860	33	196	99	137	1067	3237	1389	281
Room & Board Charge	1,752	964	743	847	1,280	1,238	700	564	685	474	558	713	496	498	515	561
Room & Board Reimbursed	412	646	374	346	435	458	310	492	388	424	382	442	421	463	404	443
Drugs Charge	2,978	2,329	2,175	1,965	2,936	2,339	1,814	1,857	1,642	1,672	1,639	2,335	1,729	1,759	2,654	1,353
Drugs Reimbursed	1,313	1,390	1,392	1,187	1,304	1,377	1,084	1,101	1,132	944	1,118	1,058	1,025	1,214	1,374	889
Dx Charge	971	1,239	436	477	1,093	1,291	765	292	361	273	304	474	428	309	366	261
Dx Reimbursed	329	333	282	267	314	326	305	233	212	183	198	247	289	241	310	194
PF Charge	1,803	756	496	887	1,468	1,148	915	680	695	497	604	620	457	495	490	487
PF Reimbursed	369	555	360	355	455	374	309	451	345	433	359	422	402	451	401	438
Total Reimbursement*	2,424	2,925	2,408	2,154	2,509	2,535	2,008	2,277	2,077	1,984	2,057	2,170	2,136	2,369	2,489	1,964
Total Charge*	7,637	5,289	3,850	4,176	6,790	6,016	4,194	3,392	3,383	2,917	3,110	4,142	3,110	3,061	4,025	2,662
LOS*	2.93	3.91	2.46	2.62	3.39	2.95	2.11	3.16	2.58	3.07	2.49	3.00	2.72	2.98	2.59	2.90
Charge/day	2,606	1,353	1,565	1,594	2,003	2,039	1,988	1,073	1,311	950	1,249	1,381	1,143	1,027	1,554	918

Table F. 5. Charge profile distribution across regions of admissions in private secondary hospitals

	NCR	CAR	I	II	III	VI-A	IV-B	V	VI	VII	VIII	IX	X	XI	XII	CARAGA
Number of hospitals	52	8	20	14	58	45	28	17	4	12	10	16	21	16	24	3
N	703	76	200	149	799	817	670	980	37	1549	316	547	1066	1816	2066	115
Room & Board Charge	1,841.78	1,069	857	1,615	1,732	1,512	1,330	666	922	678	986	1,234	882	1,092	941	1,415
Room & Board Reimbursed	754.50	784	580	703	748	719	710	577	537	599	712	645	675	736	697	762
Drugs Charge	3,296.85	2,492	2,131	2,738	3,305	3,517	2,351	2,590	2,006	1,815	1,816	1,774	1,884	2,082	2,563	1,725
Drugs Reimbursed	1,386.07	1,228	1,312	1,401	1,454	1,376	1,402	1,443	1,278	1,089	1,116	1,235	1,343	1,344	1,399	1,282
Dx Charge	1,254.72	667	952	1,188	1,179	1,379	1,116	709	1,223	537	806	708	811	758	921	672
Dx Reimbursed	733.03	541	693	675	732	698	681	643	718	451	517	554	622	609	676	582
PF Charge	1,873.39	938	789	1,566	1,575	1,450	1,512	435	789	410	677	952	693	883	687	1,258
PF Reimbursed	421.83	440	334	424	460	425	405	335	370	314	366	377	394	483	412	399
Total Reimbursement*	3,295.44	2,993	2,920	3,204	3,396	3,218	3,198	2,998	2,904	2,453	2,710	2,812	3,035	3,172	3,184	3,025
Total Charge*	8,267.37	5,167	4,729	7,107	7,811	7,859	6,309	4,400	4,940	3,439	4,285	4,668	4,270	4,815	5,113	5,070
LOS*	2.99	3.05	2.27	2.92	3.07	2.91	2.78	2.27	2.00	2.46	2.82	2.73	2.73	2.87	2.67	2.86
Charge/day	2,765	1,694	2,083	2,434	2,544	2,701	2,269	1,938	2,470	1,398	1,520	1,710	1,564	1,678	1,915	1,773

Table F. 6. Charge profile distribution across regions for admissions in private tertiary hospitals

	NCR	CAR	I	II	III	VI-A	IV-B	V	VI	VII	VIII	IX	X	XI	XII	CARAGA
Number of hospitals	44	1	7	1	17	20	8	8	9	15	2	3	12	9	7	3
N	2809	46	170	15	735	1023	861	245	369	1520	214	291	1002	1747	740	251
Room & Board Charge	3,968	2,075	1,515	1,623	2,807	2,516	2,464	1,641	2,287	2,936	1,913	2,098	1,847	1,849	1,840	1,943
Room & Board Reimbursed	1,379	1,235	778	782	1,353	1,149	1,044	1,097	1,006	1,320	1,162	1,112	1,108	1,187	1,133	1,227
Drugs Charge	6,009	5,044	3,098	2,798	4,545	3,795	4,699	2,296	2,757	4,040	3,801	2,561	2,811	3,123	3,124	2,884
Drugs Reimbursed	2,228	2,001	1,995	1,824	2,157	2,295	2,489	1,576	1,880	2,303	2,369	1,690	1,857	1,885	2,245	2,298
Dx Charge	4,231	2,606	904	1,341	1,918	2,679	2,151	1,120	1,576	1,355	1,236	1,125	1,172	1,385	1,474	1,177
Dx Reimbursed	1,288	1,054	655	989	1,135	1,187	1,274	854	1,194	916	899	867	837	919	981	1,020
PF Charge	2,044	2,244	1,331	1,623	2,137	1,803	1,925	1,336	1,397	1,528	1,790	1,589	1,450	1,502	1,332	1,174
PF Reimbursed	605	642	331	377	539	503	497	453	493	577	569	443	552	615	530	501
Total Reimbursement*	5,500	4,961	3,759	3,971	5,190	5,134	5,305	3,980	4,573	5,116	4,999	4,119	4,354	4,607	4,889	5,045
Total Charge*	16,257	12,034	6,847	7,385	11,415	10,792	11,239	6,393	8,017	9,858	8,739	7,395	7,282	7,860	7,771	7,178
LOS*	3.86	3.57	2.19	2.47	3.88	3.24	2.97	2.99	2.72	3.63	3.19	3.06	3.03	3.26	3.03	3.36
Charge/day	4,212	3,371	3,126	2,990	2,942	3,331	3,784	2,138	2,947	2,716	2,739	2,417	2,403	2,411	2,565	2,136

APPENDIX F

Complete socio-demographic profile of the different regions

Table. G.1. Regional profile

Geographic location	Region	Admission rate	Poverty incidence	Average annual income	% Urban	2000 Pneumonia incidence rate	2002 Pneumonia incidence rates	No. of Hospitals	No. of Hospital beds	No. of Health care professionals
NCR	NCR	66.14	7.60	273295	98.35	873.01	807.09	180	20922	7721
Luzon	CAR	152.24	39.70	113987	18.94	1,577.55	2,277.53	50	1637	491
	Region I	106.48	34.71	130555	24.86	536.98	503.91	103	3301	884
	Region II	70.93	28.66	107442	12.10	497.98	623.62	56	1680	451
	Region III	55.63	20.50	145173	42.24	419.77	581.08	162	6141	1702
	Region IV-A	76.49	20.26	164400	41.32	454.59	1,009.17	121	4446	1173
	Region IV-B	115.94	41.97	103565	24.60	565.57	884.39	101	2776	692
	Region IX	167.83	49.18	93676	10.31	1,485.75	1,622.41	97	2464	577
	Region V	110.14	56.20	105277	15.90	744.62	860.22	68	4076	1256
Visayas	Region VI	157.13	45.85	89309	16.58	1,072.40	1,027.54	84	5133	1251
	Region VII	155.83	36.59	83180	21.45	953.00	1,042.95	61	1970	497
	Region VIII	191.40	45.94	81229	11.89	1,395.91	1,222.61	65	1668	416
Mindanao	Region X	171.89	45.63	98098	15.26	918.93	1,073.31	104	3486	901
	Region XI	399.81	33.26	102452	13.47	446.93	322.67	105	3376	937
	Region XII	371.83	55.23	89537	17.55	1,084.66	1,155.93	87	2319	509
	CARAGA	154.49	50.38	81936	11.93	803.82	853.98	50	1147	283

APPENDIX G

Scatter Plots

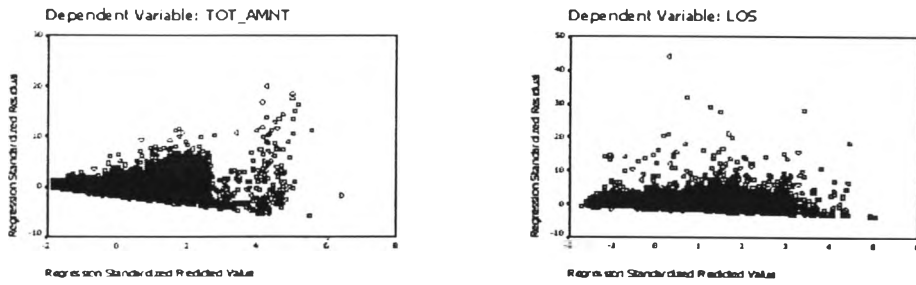


Figure E. 1. Scatter plots of total amount and length of stay; all cases; unit of analysis: individual entry

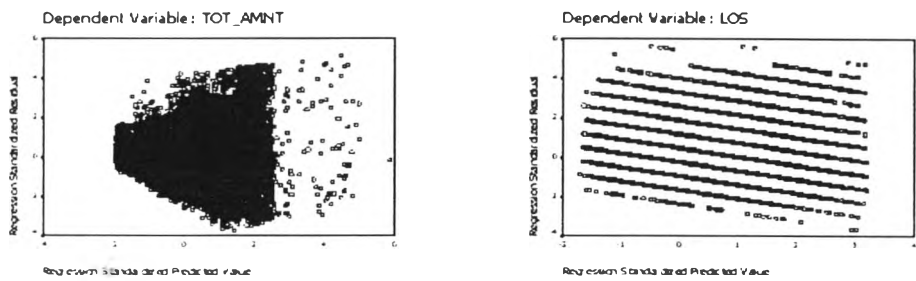


Figure E. 1. Scatter plots of total amount and length of stay; less outliers; unit of analysis: individual entry

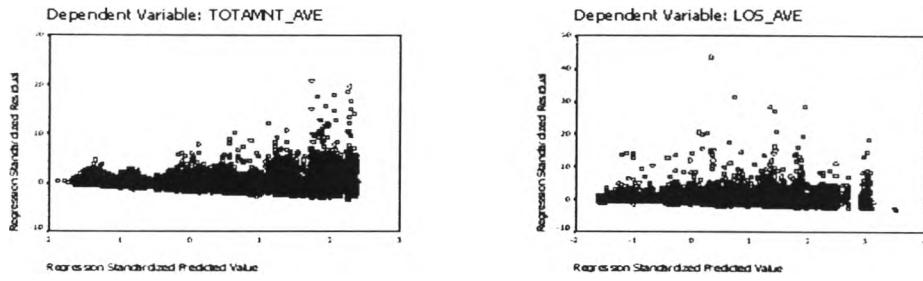


Figure E. 2. Scatter plots of total amount and length of stay; all cases; unit of analysis: membership number

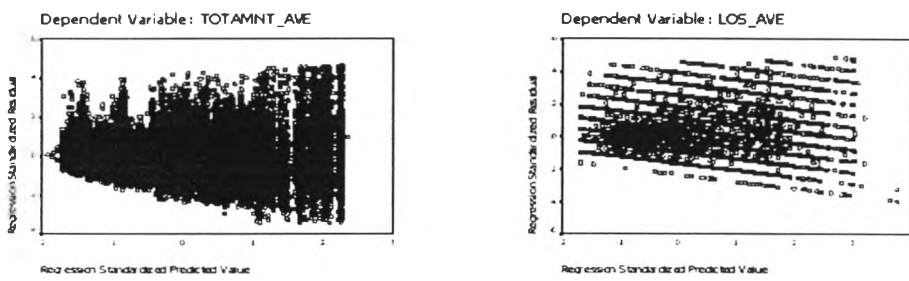


Figure E. 3. Scatter plots of total amount and length of stay; less outliers; unit of analysis: membership number

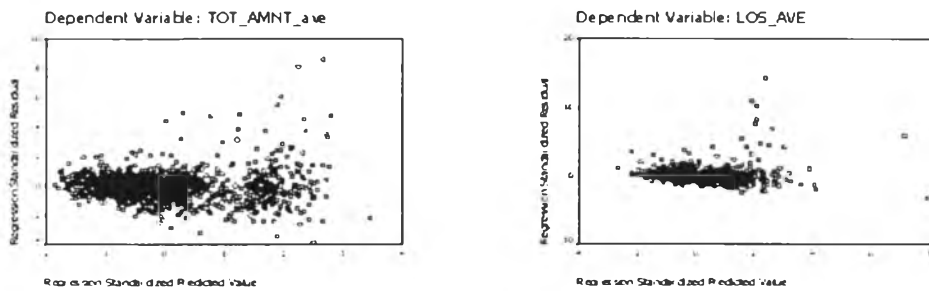


Figure E. 4. Scatter plots of total amount and length of stay; all cases; unit of analysis: hospital

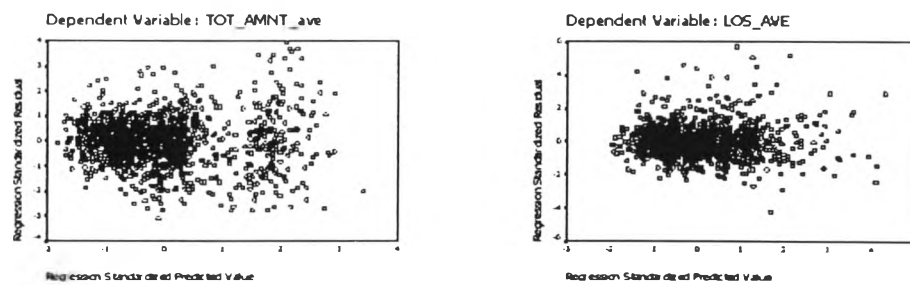


Figure E. 5. Scatter plots of total amount and length of stay; less outliers; unit of analysis: hospital

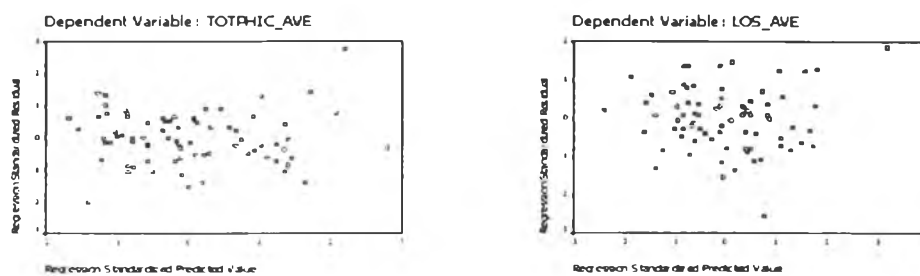


Figure E. 6. Scatter plots of total amount and length of stay; all cases; unit of analysis: province

APPENDIX H

Bivariate correlations of the actual and estimated reimbursements

Table H. 1. Bivariate correlations of the actual and estimated reimbursements

	B1_ACTUAL	LOS_RMBD	B1_PHIC	DRUGS	B2_ACTUAL	B2_PHIC	LAB	B3_ACTUAL	B3_PHIC	PF_ACT	PF	PF_EST	TOT_AMNT	ACTUAL	EST_TOT_AMNT
B1_ACTUAL	1	.798(**)	.802(**)	.536(**)	.615(**)	.549(**)	.612(**)	.577(**)	.604(**)	.496(**)	.470(**)	.456(**)	.750(**)	.742(**)	.648(**)
los_rmbd	.798(**)	1	.965(**)	.621(**)	.630(**)	.632(**)	.704(**)	.600(**)	.616(**)	.410(**)	.444(**)	.600(**)	.822(**)	.708(**)	.765(**)
b1_phic	.802(**)	.965(**)	1	.597(**)	.607(**)	.623(**)	.679(**)	.578(**)	.617(**)	.429(**)	.463(**)	.578(**)	.832(**)	.696(**)	.736(**)
drugs	.536(**)	.621(**)	.597(**)	1	.410(**)	.633(**)	.945(**)	.401(**)	.601(**)	.211(**)	.234(**)	.497(**)	.672(**)	.453(**)	.975(**)
B2_ACTUAL	.615(**)	.630(**)	.607(**)	.410(**)	1	.647(**)	.590(**)	.926(**)	.797(**)	.342(**)	.363(**)	.222(**)	.775(**)	.957(**)	.536(**)
b2_phic	.549(**)	.632(**)	.623(**)	.633(**)	.647(**)	1	.680(**)	.565(**)	.724(**)	.184(**)	.225(**)	.470(**)	.885(**)	.622(**)	.690(**)
lab	.612(**)	.704(**)	.679(**)	.945(**)	.590(**)	.680(**)	1	.611(**)	.749(**)	.206(**)	.224(**)	.466(**)	.753(**)	.617(**)	.977(**)
B3_ACTUAL	.577(**)	.600(**)	.578(**)	.401(**)	.926(**)	.565(**)	.611(**)	1	.850(**)	.267(**)	.258(**)	.172(**)	.714(**)	.914(**)	.532(**)
b3_phic	.604(**)	.616(**)	.617(**)	.601(**)	.797(**)	.724(**)	.749(**)	.850(**)	1	.197(**)	.188(**)	.336(**)	.819(**)	.791(**)	.689(**)
pf_act	.496(**)	.410(**)	.429(**)	.211(**)	.342(**)	.184(**)	.206(**)	.267(**)	.197(**)	1	.937(**)	.195(**)	.512(**)	.562(**)	.264(**)
pf	.470(**)	.444(**)	.463(**)	.234(**)	.363(**)	.225(**)	.224(**)	.258(**)	.188(**)	.937(**)	1	.285(**)	.554(**)	.553(**)	.289(**)
pf_est	.456(**)	.600(**)	.578(**)	.497(**)	.222(**)	.470(**)	.466(**)	.172(**)	.336(**)	.195(**)	.285(**)	1	.527(**)	.274(**)	.542(**)
tot_amnt	.750(**)	.822(**)	.832(**)	.672(**)	.775(**)	.885(**)	.753(**)	.714(**)	.819(**)	.512(**)	.554(**)	.527(**)	1	.836(**)	.773(**)
actual	.742(**)	.708(**)	.696(**)	.453(**)	.957(**)	.622(**)	.617(**)	.914(**)	.791(**)	.562(**)	.553(**)	.274(**)	.836(**)	1	.585(**)
est_totamnt	.648(**)	.765(**)	.736(**)	.975(**)	.536(**)	.690(**)	.977(**)	.532(**)	.689(**)	.264(**)	.289(**)	.542(**)	.773(**)	.585(**)	1

** Correlation is significant at the 0.01 level (2-tailed).

BIOGRAPHY

Ms. Monet M. Loquias is born on March 23, 1974 in the Philippines to Mr. and Mrs. Juan M. Loquias. She grew up in a small city in the Philippines where she also attended her primary and secondary education. She then moved to Manila to continue her tertiary education where she finished Bachelor of Science in Pharmacy at the most prestigious state-owned university in the country, the University of the Philippines, in the year 1994. She pursued her master's degree in the same University while working at the same time first as a Research Associate at the UP- Marine Science Institute and then later as Instructor at the UP- College of Pharmacy. She obtained her Master of Science in Pharmacy in the year 1999. She remains to be associated with the UP- College of Pharmacy where she is appointed as Assistant Professor II.

