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A Study of Philippine Hospital Management Administrative Systems

Fred Avestruz

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**A STUDY OF PHILIPPINE HOSPITAL MANAGEMENT
AND ADMINISTRATIVE SYSTEMS**

PIDS Project No. DOH / 91-92 / 05
(Final Report)

October 30, 1994

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CHAPTER 1

INTRODUCTION

Hospitals are very important institutions for the economic and social well-being of society. Their curative and rehabilitative functions enable them to restore individuals to being productive members of society and for those individuals to enjoy the benefits that can be derived from it. The success of hospitals in their mission is therefore important. This success is highly dependent on the hospitals' managerial capability. An understanding of how hospitals are managed will contribute immensely to future successes in hospital management and towards the enhancement of their roles in society.

This chapter provides information on the background, purpose, and expected output of the study. It also lays the framework of the relationships among the variables that are considered in the study.

The first section spells out the objectives and the expected output of the study. The second section discusses the framework of hospital management, while the third section runs through the role of hospitals in the Philippine health care system. Section four discusses the characteristics of the operations of Philippine hospitals. Some background information of four hospitals chosen for case studies are provided in the final section.

1.1 Objectives of the Study

The purpose of this study is to understand better the nature of management of Philippine hospitals under different ownership (government/private), economic environment (rural/urban), size and capability (tertiary/secondary) and the role of management in the success or failure of hospitals in providing services of acceptable standard of quality to meet health needs under cost-effective conditions. The study also looks into how managerial processes are affected by the external environment, resources, and relevant government policies and how policies may be reformed to provide an environment more conducive to the improvement of the performance of both government and private hospitals.

This study complements the other studies in the Baseline Studies on the Philippine Health Care Financing System in providing baseline information on the profile and behavior of health care facilities.

The following are the specified outputs of this study.

- a. A study of the current organizational structures and management practices of hospitals by level of care, by ownership and incentive structures.

- b. An identification of the key actors in the hospital scene; a description of their respective roles in the decision-making processes regarding capital expenditures, budgets, personnel and fees; a description of their interactions among each other; and a description of their effects on the performance of the hospital.
- c. A survey and assessment of the cost and quality control systems, including, for example, the medical audit, tissue committee, utilization review, medical records, therapeutic and other medical committees, and non-medical staff development.
- d. A survey and assessment of specific hospital systems such as out-patient department, emergency department, operating theaters, radiology, pathology, engineering, catering, housekeeping, laundry and linen, purchasing, and other ancillary services.
- e. A review of the current hospital networking system (i.e., resource sharing).
- f. An assessment of the potential impact of the implementation of the local government code on the operation and management systems of hospitals, especially government hospitals.
- g. Case studies of four (4) hospitals operating as public secondary and tertiary, and private secondary and tertiary providers.

1.2 Conceptual Framework of Hospital Management

Like other enterprises, for-profit or not-for-profit, hospitals in the Philippines are essentially engaged in the conversion of resources into desired outputs in the process of production. As in other production processes resources can be combined and utilized in various alternative ways to produce the same set of outputs. The decisions involved in the conversion of resources into outputs are called managerial decisions. Taken broadly, this includes the activities of planning, organizing, implementing, and controlling the conversion process. In economics, managerial decisions can be evaluated in terms of the efficiency by which resources are utilized to attain the goals of the organization.

A hospital's performance is difficult to measure because of the high degree of subjectivity. In general, it may be said that the objective of a hospital is to provide quality patient care while maintaining the financial viability of the organization. There are, of course, other objectives related to other activities of specific hospitals such as research and training. In this study, the focus will be on the more general objectives. Hospital performance will be measured through indicators such as death rates and patient satisfaction for quality, and liquidity and profitability for its financial viability.

Hospitals, like most other organizations, do not operate in isolation. Various factors surrounding the hospital and even within the hospital affect its degree of success or failure in attaining its objectives. These factors include the nature of its resources (capital, human, technology, etc.), competition, markets (consumers), and government regulations and incentives.

Figure 1.1 illustrates the interrelationships and interdependencies of the various components that determine the degree of success or failure of hospitals in providing the kind of health care they envision themselves to provide. It may be noted that government policies and

actions tend to affect, directly or indirectly, almost all the components or determinants of hospital performance. For example, government budgetary allocation for health care would affect the nature of diseases that hospitals will treat and therefore the kind of facilities they will need. Competition may be affected by the government's policies on hospital licensing. Credit policies, import liberalization policies, and interest rates may affect the viability of certain hospital technology acquisition alternatives.

External factors, other than government, also affect the performance of hospitals. These include, their cooperation and competition among each other, technological development, socio-cultural factors, hospital networking, and health care financing.

Internally, hospital performance is directly affected by the background of its decision makers, its planning processes, its organizational structure, its implementation and control systems, and the quality and quantity of its resources, among others.

Government policies and other external environmental factors are dealt with in the next chapter, chapter 2, while resources and the managerial decision processes are discussed in chapter 3. Chapter 4 looks into the technical performance of Philippine hospitals, while financial characteristics and performance are covered in chapter 5. The last chapter integrates the results of the analysis of the earlier chapters into some policy recommendations.

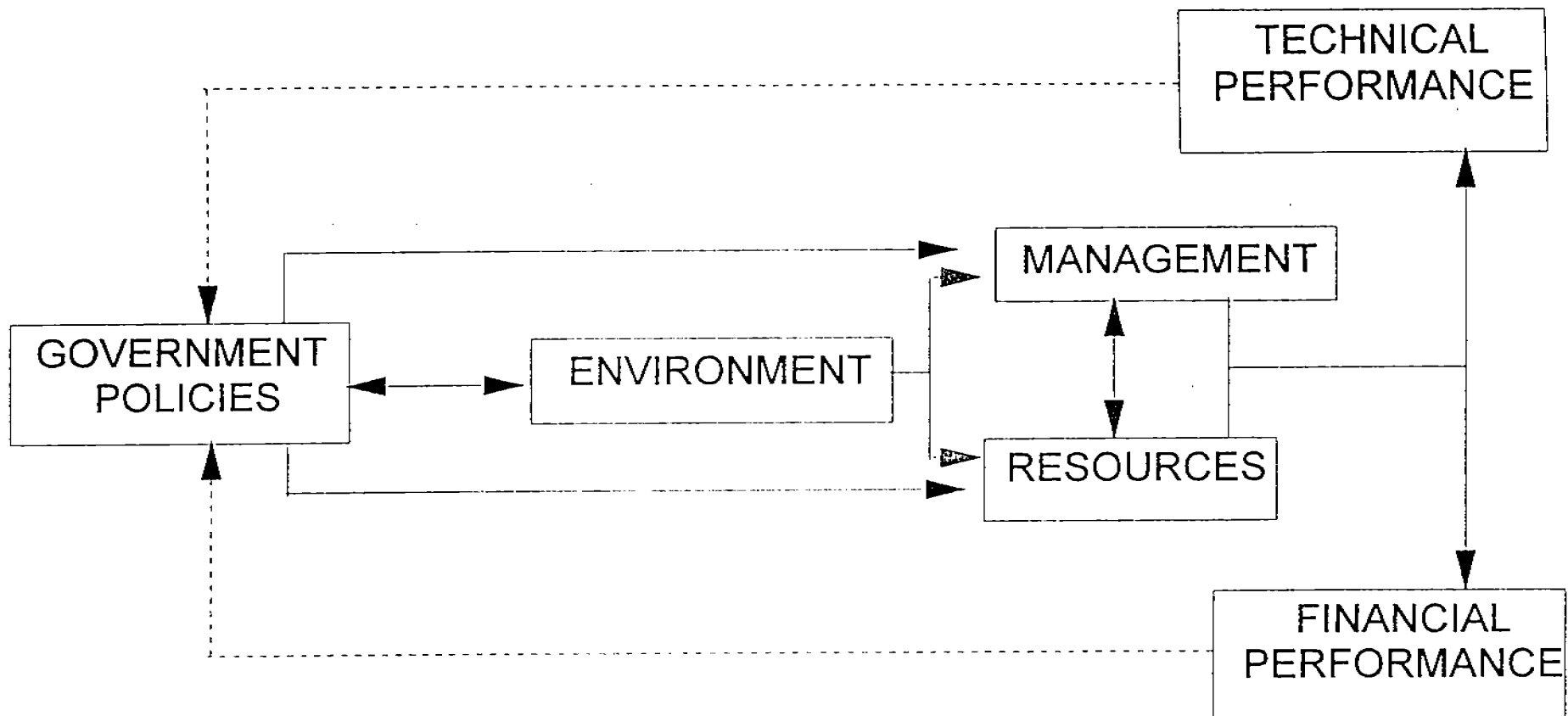
In an attempt to capture the nature of the above variables in Philippine hospitals, this study was conducted in essentially two parts. The first part involved a thorough review of the literature and the analysis of secondary data on Philippine hospital management. The purpose of this was to identify and characterize the critical variables that affect hospital management and performance in the Philippines. Much of the information on Philippine hospital management is contained in various masters theses at the Asian Institute of Management (AIM), University of the Philippines College of Public Health (UP-CPH), and Ateneo de Manila University, as well as various articles in the Philippine Hospital Journal and other publications and pronouncements.

The second part of this study consisted of conducting case studies of four hospitals. These case studies are intended to confirm the findings and conclusions of the studies reviewed and to fill gaps on knowledge about Philippine hospital management to the extent possible. Since the case studies cover only four hospitals, representing the government and private sectors in both rural and urban settings and providing secondary and tertiary levels of care, the conclusions that are derived from this study are limited in their degree of generality. Statements in the concluding sections and chapter should therefore not be construed as being generally true for all government or private hospitals in the Philippines.

1.3 The Hospital in the Philippine Health Care System

This section sets the macro picture of Philippine hospitals. First, an overview of the Philippine health care system is provided, followed by a discussion of the role of Philippine

**FIGURE 1.1
FRAMEWORK OF THE ENVIRONMENT
OF HOSPITAL MANAGEMENT**



hospitals in this system. This is followed by a description of the Philippine hospital industry structure.

1.3.1 The Philippine Health Care System

The Philippine health care system consists of government and private health, diagnostic, and treatment facilities spread unevenly across the archipelago. Government health facilities tend to focus on providing preventive, curative and rehabilitative services while private facilities provide direct personal care that is curative and rehabilitative in nature.

The government health care system, which is mostly directed towards the low-income groups, consists of barangay health stations (BHS), with a midwife, and rural health units (RHU), which are supposed to be staffed by a team consisting of a physician, a nurse, and a midwife. Table 1.1 shows the ratio of health care facilities to population in the Philippines in 1982, 1984, and 1989. This table shows the general decline in the number of facilities in the period 1984 to 1989, from 1,839 hospitals in 1984 to 1,696 hospitals in 1989. The number of both government and private hospitals declined during this period. The ratio of health facilities to population continued to decline from 1982 to 1989 for all types of facilities.

The number of Department of Health (DOH) facilities by region from 1986 to 1989 increased for all categories as shown in Table 1.2. Due to the rapid increase in population the ratio of population to DOH health facilities declined as shown in Table 1.3.

For hospital beds to population we see in Table 1.4 a general decline in all regions in the country. From this and the following table (Table 1.5) we also see the disparity of population served per hospital bed among the different regions in the country. NCR appears to have the most hospital beds per unit of population while Eastern Visayas has the lowest.

Table 1.6 shows that almost 14 percent of the country's population and more than 20 percent of the municipalities are still more than 17.5 km. away from the nearest DOH hospital.

Table 1.7 indicates that the highest percentage of population served by government hospitals in 1989 was in the CAR with 36.7 percent served while the lowest was in Region XI with 6.84 percent. NCR had 21.64 percent served. Among the factors which may explain this disparity, especially in view of the disparity of hospital to population ratios, are the health status of the population and the availability of private hospitals.

Complicated cases are usually referred by BHSs and RHUs to the district hospitals (25-50 beds), or to the provincial hospital (100-150 beds), or the regional hospital (200-250 beds). Cases requiring specialized care are referred to Medical Centers (250 beds or more), mostly located in Metro Manila.

TABLE 1.1
HEALTH FACILITIES TO POPULATION RATIO
PHILIPPINES, 1982, 1984, AND 1989

	1982		1984		1989	
	No. of Facilities	Ratio	No. of Facilities	Ratio	No. of Facilities	Ratio
<u>Hospitals</u>	1,713	1:29,646	1,839	1:30,137	1,696	1:35,434
Government			612		564	
Private			1,227		1,132	
<u>Hospital Beds</u>	88,250	1:575	90,008	1:607	84,985	1:707
Government			47,861		46,639	
Private			42,418		38,346	
<u>Rural Health Units (RHU)</u>	1,991	1:23,306	1,991	1:27,458	2072/1	1:28,323/1
<u>Barangay Health Station (BHS)</u>	7,991	1:6,355	7,991	1:6,841	9184/1	1:16,390/1

1/ as of 1988

Sources: DOH, Bureau of Medical Services

DOH, Annual Report, 1988

Bureau of Licensing and Regulations, DOH

From: Solon (1991), Health Sector Financing in the Philippines, Vol. 11, RTI/UPSE.

The loosely linked network of privately operated medical facilities and practitioners consists of pharmacists, physicians in solo or group practice, small hospitals and maternity centers, diagnostic centers, employer-based outpatient facilities, health maintenance organizations (HMOs), secondary and tertiary care institutions, traditional birth attendants and indigenous healers. Generally they concentrate on providing curative and rehabilitative care to the upper and middle-income households.

1.3.2 Role of Hospitals

As in other dynamic societies, the role of hospitals has constantly evolved and expanded to meet the growing needs of the population as well as to harness the hospital's potentials given its unique position as an institution in society. Some views, opinions and observations on the role of Philippine hospitals are presented below.

Stressing the interrelationship between the hospital and other health and non-health services, Solon et al. (1991, Vol. 1, p. 39), point out that hospitals have the primary role of providing "services for people who become ill from diseases that are not readily preventable by non-health sector activities (e.g., use safe water sources, proper nutrition)." Thus, expenditures for preventive health services should comprise a large component of the total health expenditure. Health status may be significantly raised if all preventive measures are exhausted so that the relatively high cost curative measures, those that hospitals are meant to provide, can be minimized. It is therefore necessary to assess the improvement in health status brought about by hospital services vis-a-vis field services.

Expounding along the same idea, Dr. Thelma Navarette-Clemente (1992), President of the Philippine Hospital Association (PHA), in a newspaper article, writes that the walls of hospitals have disappeared by extending not only curative but also preventive (e.g., immunization, health education) and rehabilitative services to the communities.

Another role of Philippine hospitals is expressed by Dr. Jaime Z. Galvez-Tan, currently the Undersecretary of Health, speaking at the 1991 Philippine Hospital Association Convention. He said that because of the phenomenon of rapid urbanization and the high concentration of hospitals in the urban areas, hospitals are positioned to assume "a role that goes beyond curative and rehabilitative care" - the practice of primary health care which to him is "health in the hands of the people."

The core of primary health care is community participation. Tan speaks of the community of patients (e.g., organizations of patients for coping with their illnesses, and bulk buying of medications); the community of hospital personnel and workers (e.g., formation of cooperatives, dialogues and consultations between management and labor); and the community within the catchment area of the hospital (e.g., hospital volunteers bringing cheer to patients, educating patients and their families, and counselling the sick). The role of the hospital is to initiate the

TABLE 1.2
NUMBER OF DOH HEALTH FACILITIES BY REGION, 1986 -1989

REGION	MAIN HEALTH CENTERS				BARANGAY HEALTH STATION				PUERIC ULTURE CENTERS		
	1986	1987/1	1988/1	1989/1	1986	1987	1988	1989	1987	1988	1989
REGION I	187	199	191	128	900	920	912	748	19	19	35
REGION II	118	123	124	98	499	576	553	458			
REGION III	208	210	206	193	1393	1306	1211	1114	20	41	18
REGION IV	255	289	272	276	1464	1340	1383	1413	47	32	46
REGION V	119	167	125	125	656	749	757	759	13	14	17
REGION VI	129	139	137	145	847	860	877	998	7	15	17
REGION VII	133	193	177	159	838	871	922	949	10	6	8
REGION VIII	-	149	160	160		570	605	570	10	10	9
REGION IX	94	112	116	124	306	377	381	382			
REGION X	117	130	126	126	535	608	619	619	10	11	11
REGIONXI	34	86	86	99	235	576	597	664			
REGIONXII	91	85	97	101	548	548	350	452	3	1	1
NCR/2	47	279	255	255	85	28	17	19	64	69	75
CAR				84				354			
TOTAL	1532	2161	2072	2073	8306	9329	9184	9499	203	218	237

1/ Consist of Main Health Centers, Lying-In-Clinics and Bagong Lipunan Health Centers

2/ 1986 data for Main Health Center refers to Health Center.

1986 data for Barangay Health Center refers to Bagong Lipunan Health Center

SOURCE: DOH Annual Reports, 1986 -1989

TABLE 1.3
RATIO TO POPULATION OF DOH HEALTH FACILITIES BY REGION, 1986-1989

REGION	MAIN HEALTH CENTERS				BARANGAY HEALTH STATION				PUERIC ULTURE CENTERS		
	1986	1987/1	1988/1	1989/1	1986	1987	1988	1989	1987	1988	1989
REGION I	21275	20380	21642	26968	4421	4408	4532	4615	213455	217563	98627
REGION II	21897	21527	21580	24124	5178	4597	4839	5162			
REGION III	26874	27265	28461	31098	4013	4384	4841	5388	286278	143000	333434
REGION IV	28578	25911	28279	28614	4978	5588	5562	5589	159327	240370	171683
REGION V	33717	24578	33584	34341	6116	5480	5546	5656	315732	299855	252504
REGION VI	40366	38293	39701	38314	6148	6189	6202	5567	760398	362599	326799
REGION VII	32167	22601	25171	28498	5105	5008	4823	4775	436207	741076	566397
REGION VIII		21378	20268	20633		5588	5360	5792	318527	324284	366806
REGION IX	31153	26736	26386	25223	9570	7943	8034	8188			
REGION X	27894	25769	27282	27985	6100	5510	5553	5696	335002	312506	320554
REGION XI	115700	46889	48047	42752	16740	7001	6921	6374			
REGION XII	29284	32153	29653	28433	4863	4987	8006	6353	911003	2802008	2871780
NCR/2	152073	26359		30464	84087	262650	444789	408856	114909	109586	103577
CAR				13390				3177			
TOTAL	33375	26541	28323	28966	6301	6148	6390	6321	282542	269195	253363

1/ Consist of Main Health Centers, Lying-In-Clinics and Bagong Lipunan Health Centers

2/ 1986 data for Main Health Center refers to Health Center.

1986 data for Barangay Health Center refers to Bagong Lipunan Health Center

SOURCE: DOH Annual Reports, 1986 -1989

TABLE 1.4
NUMBER OF HOSPITAL BEDS AND HOSPITAL BED TO POPULATION
RATIO, BT REGION, PHILIPPINES, 1982, 1985, AND 1989

REGION	1982		1985		1989	
	BEDS	RATIO	BEDS	RATIO	BEDS	RATIO
Philippines	88250	1:575	90008	1:607	84985	1:707
National Capital Region	30461	1:208	29633	1:234	28553	1:272
Region I Ilocos	5649	1:652	5695	1:685	3519	1:981
Region II Cagayan Valley	3386	1:691	3239	1:778	2402	1:1004
Region III Central Luzon	6427	1:789	6040	1:903	5766	1:1041
Region IV Southern Tagalog	8252	1:790	8857	1:800	6540	1:1208
Region V Bicol	4870	1:751	4998	1:785	4337	1:990
Region VI Western Visayas	4984	1:954	4859	1:1048	4744	1:1171
Region VII Central Visayas	6002	1:638	6076	1:690	6062	1:748
Region VIII Eastern Visayas	2792	1:1042	2954	1:1040	2739	1:1205
Region IX Western Mindanao	2700	1:856	3256	1:798	3737	1:769
Region X Northern Mindanao	4661	1:675	6207	1:618	6162	1:687
Region XI Southern Mindanao	5258	1:675	6207	1:618	6162	1:687
Region XII Central Mindanao	2808	1:856	3256	1:798	3737	1:769
Cordillera Autonomous Region					2615	1:431

*Sources: Department of Health, Bureau of Medical Services and Bureau of Licensing and Regulations
National Census and Statistics Office, Population Studies Division
National Economic and Development Authority, Compendium of Philippine Social Statistics*

From: Solon (1991), Health Sector Financing in the Philippines, Vol. II, RTI/UPSE.

TABLE 1.5
BED - TO - POPULATION RATIO AND HEALTH CENTER -TO -POPULATION
RATIO BY REGION, 1988

REGION	HOSPITAL BED-TO-POPULATION RATIO / 1	HEALTH CENTER-TO-POPULATION RATIO / 1
PHILIPPINES	1:693	1:28, 323
NCR	1:264	1:29,653
Region I Ilocos	1:750	1:21,642
Region II Cagayan Valley	1:874	1:21,580
Region III Central Luzon	1:1,049	1:28,461
Region IV Southern Tagalog	1:1,074	1:28,279
Region V Bicol	1:916	1:33,584
Region VI Western Visayas	1:1,141	1:39,701
Region VII Central Visayas	1:729	1:25,121
Region VIII Eastern Visayas	1:1,167	1:20,268
Region IX Western Mindanao	1:1,019	1:26,386
Region X Northern Mindanao	1:734	1:27,282
Region XI Southern Mindanao	1:860	1:48,047
Region XII Central Mindanao	1:735	1:28,887

1/ Including health Center with Lying-in-Clinic

Source: Department of Health, Annual Report, 1988

From: Solon (1991), Health Sector Financing in the Philippines, Vol.II, RTI/IPSE.

TABLE 1.6
ACCESSIBILITY OF DOH HOSPITALS

I. % of population < 17.5 kms. from DOH hospitals, 1989		
	<u>Population</u>	<u>%</u>
Within 17.5 kms.	50.2 M	86.4%
Beyond 17.5 kms.	7.9 M	13.6%
II. No. of municipalities within accessibility radius of DOH hospitals, 1989		
	<u>No. of Municipalities</u>	<u>%</u>
Within 17.5 kms.	1,233	79.5%
Beyond 17.5 kms.	317	20.5%

Source of basic data:
HOMS, Department of Health

From: Solon (1991), Health Sector Financing in the Philippines. Vol. II, RTI/ UPSE

TABLE 1.7
NUMBER AND PERCENTAGE DISTRIBUTION OF PATIENTS
IN GOVERNEMENT HOSPITALS BY REGION, PHILIPPINES 1989

REGION	NO.OF PATIENTS (DISCHARGE)	OUT-PATIENTS	TOTAL IN PATIENT & OUTPATIENT	% OF POPULATION SERVED
I	143,526	648,330	791,856	22.94%
II	130,612	512,377	642,989	26.65%
III	121,316	651,658	772,974	12.88%
IV	172,387	879,378	1,051,765	13.32%
V	57,458	295,911	353,369	8.23%
VI	158,576	446,297	604,873	10.89%
VII	178,546	858,621	1,037,167	22.89%
VIII	70,961	345,587	416,548	12.62%
IX	63,217	454,048	517,265	16.54%
XI	57,038	232,916	304,856	10.62%
CAR	41,443	371,974	413,417	36.70%
NCR	272,783	1,408,087	1,680,870	21.64%
PHILS.	1,765,442	8,280,558	10,046,000	16.56%

Source of Basic data:
Bureau of Licensing and Regulations, DOH

From: Solon (1991), Health Sector Financing in the Philippines, Vol. II, RTI/ UPSE.

formation of these various community organizations. Doctors and nurses, for example, can act as facilitators in the early phase of organizing patients.

Other areas where hospitals can be involved in primary health care are in regular immunization sessions, under-five growth monitoring, health and nutrition education, "baby friendly procedures," etc.

Drs. Solon, Clemente, and Tan are among the many authorities on health care who have stressed the broadening of the role that hospitals can take, from one of purely curative and rehabilitative to one which would include preventive functions. This evolving role will increase the effectiveness of every peso allocated to health care expenditure, both private and public, in improving the health status of the majority of the Filipinos. Relieving the hospitals from pressures of demand for the treatment of preventable diseases will enable them to concentrate on the non-preventable diseases and make these services available, accessible, and affordable to the greatest number of Filipinos.

In a more general sense, Schulz and Johnson (1983) assert that the purpose of the hospital is to apply appropriate health technologies and care services to meet the health needs of the population (Schulz and Johnson, 1983 p. 3). Taken broadly, however, hospitals have functions other than the traditional and obvious one of treating the sick - the curative aspects of health care.

Schulz and Johnson (1983, p.86) mention that the hospital is also a workshop for the physicians. Since it is the physicians who practice medicine, hospitals make available the resources (i.e., staff, especially the paramedical, materials such as supplies and equipment, and money) to the former to manage their admitted patients.

This general statement of purpose of a hospital applies as well to Philippine hospitals. A critical aspect of this statement, however, is the word "appropriate." Obviously, appropriate health technologies differ in different settings for the same health needs. It is therefore a challenge for hospitals to determine the appropriate technologies.

The Department of Health defines a hospital under the provisions of Republic Act 4226 as: a place devoted primarily to the maintenance and operation of facilities for the diagnosis, treatment and care of individuals suffering from illness or deformity or in need of other medical or nursing care. It is construed as an institution where there are installed beds or cribs for twenty-four-hour use or longer by patients for all kinds of treatments be it diseased conditions, injuries, deformities or abnormal physical and mental states, maternity cases, and all institutions such as those for convalescence, sanatoria or sanatoria care, infirmities, nurseries, dispensaries and such other names by which they may be designated.

The hospital, by providing curative and rehabilitative services, complements the preventive services offered by the public health sector. Training and research are the functions especially of the more advanced and technically equipped hospitals. Training consists of clinical

education for the health professionals (e.g. residency training for doctors, teaching of medical or nursing students) and training for the support personnel (e.g., nursing aides, and cooks). On the other hand, research refers to clinical research and development to generate new knowledge to come up with improved medical technology.

Thus, C.P. Crisostomo (1976) characterizes a hospital as the most complex organization "in modern society with extremely fine division of labor and a repertory of technical skills. The major hospital embraces multiple goals, chiefly: patient care, teaching, and research. It is a mixture of a hotel, treatment center, a laboratory, a university, and a prototype of a multi-purpose organization fully prepared to give its patients well-coordinated and highly specialized medical care."

In summary, hospitals have multiple roles: a place to diagnose and treat the ill; a workshop of medical practitioners; a training and a research institution; a provider of community services; and finally, a place where patients, the hospital personnel and the community people can work together for their common benefit.

1.3.3 Hospital Industry Structure

The Department of Health and the Philippine Hospital Association classify government and private hospitals according to their service capabilities as general or special; primary, secondary, or tertiary level; and training or non-training. These are described in Table 1.8.

A general hospital has the four basic services: pediatrics, surgical, medical and obstetrics-gynecology. A special hospital, as defined in R.A. 4226, "deals exclusively with specific organs of the body (e.g., Philippine Heart Center, National Kidney Institute), certain conditions (e.g., San Lazaro Hospital for infectious diseases, Tala Leprosarium), or certain groups of the population (e.g., Philippine Children's Medical Center).

The size or bed capacity also determines the classification of hospitals. Primary hospitals are those with less than 25 beds, secondary are those with 25 to 99 beds, while tertiary are those with 100 and more beds. Table 1.9 shows the actual bed capacity of DOH hospitals, by category and by region for 1989. Here we see the location of all specialty and special hospitals in the NCR.

A hospital could be training or non-training depending on whether or not it trains medical residents/students and other categories of health professionals.

An additional classification found under RA 4226 is according to ownership and control. Hospitals could be private (e.g., Makati Medical Center), under the Department of Health, or under other government agencies (e.g., city hospitals, military hospitals).

Tables 1.10 and 1.11 show that at all levels of hospital care there are more private hospitals than government hospitals. In terms of bed capacity, however, government hospitals at

TABLE 1.8
CLASSIFICATION OF HOSPITALS

1. Government or Private:

Government Hospital - operated and maintained partially or wholly by the national, provincial, municipal or city government or other political subdivision, board or other agency thereof.

Private Hospital - privately owned, established and operated with funds raised or contributed through donations, or by private capital or other means by private individuals, association, corporation, religious organization, firm company or joint stock association.

2. General or Special:

General Hospital - provides services for all kinds of illnesses, diseases, injuries or deformities.

Special Hospital - provides services for one particular kind of illness / disease or health medical care need.

3. Primary, SEcondary and Tertiary Category according to Services Capabilities Offered:

Primary Hospital - equipped with services capabilities needed to support licensed physician rendering services in Medicine, Pediatrics, Obstetrics and Minor Surgery.

SEcondary Hospital - equipped with the services capabilities needed to support licensed physicians rendering services in the fields of Medicine, Pediatrics, Obstetrics and Gynecology, General Surgery and other ancillary services.

Tertiary Hospital - is fully departmentalized and equipped with the services capabilities needed to support certified Medical Specialist and other licensed physicians rendering services in the field of Medicine , Pediatrics, Obstetrics and Gynecology, Surgery, their specialties and ancillary services.

4. Training and Non-training:

Teaching and training Hospital- departmentalized hospital with accredited Residency Training Program in a specified specialty or discipline.

From: Revised Rules & Regulations Governing the Registration Licensure & Operation of Hospitals in the Philippines, 1989.

TABLE 1.9
ACTUAL BED CAPACITY OF DOH HOSPITALS, BY CATEGORY
AND BY REGION, PHILIPPINES, 1989

REGION	ALL HOSPITALS/1	MUNICIPAL HOSPITALS/2	MEDICARE HOSPITALS	DISTRICT HOSPITALS/3	PROVINCIAL HOSPITALS/4	REGIONAL HOSPITALS	MEDICAL CENTERS	SPECIALTY HOSPITALS	SPECIAL HOSPITAL
I	1350		33	923	394				
II	1289	31	50	633	375	200			
III	2467	20	72	1035	760	280	300		
IV	2892	62	248	1177	1155	250			
V	1799	40	80	604	775	300			
VI	1975	40	50	500	275	800	310		
VII	1670	38	50	687	325	220		350 / 5	
VIII	2086	52	65	1294	475	200			
IX	1191	50	74	424	410	233			
X	1622	25	102	711	584	200			
XI	1580	40	70	435	400	150	485		
XII	660	40	15	200	205	200			
NCR	4044			189		458	750	922	1725
CAR	965		40	200	375		350		
TOTAL	25590	438	949	9012	6508	3491	2545	922	1725

1/Includes only reporting DOH hospitals

2/ Reported capacity of 48 out of 60 hospitals nationwide, this category

3/ Reported capacity of 239 out of 276 hospitals nationwide, this category.

4/ Reported capacity of 63 out of 74 hospitals nationwide, this category

5/ Authorized bed capacity

Source of basic data:

Hospital Operations and Management Service, DOH

From: Solon (1991), Health Sector Financing in the Philippines. Vol.II RTI/ UPSE.

the tertiary level of care exceed those in the private sector. This indicates that government tertiary hospitals tend to be larger in size than their private counterparts.

1.4 Operational Characteristics of Philippine Hospitals

Philippine hospital operations are very similar to their western counterparts. The DOH categorizes hospital services and departments according to their operational functions.

A. Medical Services

1. Department of Surgery

This department is responsible for major and minor operations such as the removal of cysts and warts, appendectomy, orthopedic cases, etc. It is furnished with instruments, equipment and supplies to meet the medical needs of the patients. These include anesthetic agents, drugs, and supplies to combat shock and hemorrhage, special lighting for illumination of the operating field, sterilizing facilities, and many others.

2. Department of Pediatrics

This department is responsible for the prevention, diagnosis, care, and treatment of children's diseases. It embraces the care of all children under 21 years, including the newborn, except, however, in cases involving contagious diseases and orthopedics. This section is composed of the immediate care room for the newborn - one for babies born in the hospital and another for those born outside. Low birth weight infants and full term ones that are weak are confined in the nursery until their conditions permit home care; otherwise, the newborn stays only for two to three days after birth.

3. Out-Patient Department

This is the connecting link between the hospital and the community, and is charged with the following functions: (1) maintenance of good health, (2) disease prevention and promotion of community health, (3) health education, and (4) care of the sick and family welfare. It participates in the training of the resident staff and the medical students. Aside from the prenatal clinic, this department also has clinics for well babies (for growth and development as well as immunization); sick babies both premature and mature ones; gynecology clinic with the sterility, tumor and cancer detection clinics; dental; and nutrition clinics.

4. Department of Gynecology

This department is concerned with the diagnosis and treatment of its woman patients with conditions affecting the female generative organs. It is also concerned with preventive and promotive functions as in cancer detection, including breast cancer, and lactation management."

ABLE 1.10
REGIONAL DISTRIBUTION OF MEMBER HOSPITALS BY CATEGORY
AS OF APRIL 30, 1991

REGION	PRIMARY						SECONDARY						TERTIARY						GRAND TOTAL	
	GOVT HOSPITAL		PRIVATE HOSPITAL		TOTAL		GOVT HOSPITAL		PRIVATE HOSPITAL		TOTAL		GOVT HOSPITAL		PRIVATE HOSPITAL		TOTAL			
	HOSPITALS	ABC/I	HOSPITALS	ABC/I	HOSPITALS	ABC/I	HOSPITALS	ABC/I	HOSPITALS	ABC/I	HOSPITALS	ABC/I	HOSPITALS	ABC/I	HOSPITALS	ABC/I	HOSPITALS	ABC/I	HOSPITALS	ABC/I
CAR	4	60	22	374	26	434	22	850	13	505	35	1,355	3	550	2	243	5	783	66	2,572
Region I	7	115	39	527	46	642	16	465	26	950	42	1,415	8	1,195	4	440	12	1,635	100	3,892
Region II	8	90	33	417	41	507	20	726	10	246	30	970	3	400	2	300	5	700	76	2,177
Region III	9	155	57	620	66	776	34	1,365	57	1,348	91	2,713	9	1,500	14	915	23	2,415	180	4,983
Region IV	27	373	66	917	93	1,290	38	1,778	63	1,778	101	3,308	14	2,076	21	1,604	35	3,679	229	4,277
NCR	1	50	33	389	34	439	8	1,824	51	1,824	59	2,194	27	17,082	47	9,827	74	26,909	167	29,642
Region V	10	120	63	829	73	949	21	831	32	831	53	1,605	6	950	10	649	18	1,599	142	4,183
Region VI	9	135	13	230	22	365	24	279	10	279	34	1,164	8	1,250	11	1,795	19	3,045	78	4,864
Region VII	11	206	20	413	31	619	19	662	19	662	38	1,272	7	1,353	15	1,746	22	3,099	91	4,990
Region VIII	6	65	10	233	16	298	34	233	11	233	45	1,629	5	625	3	250	9	875	70	2,802
Region IX	10	235	30	392	40	627	14	625	16	625	30	1,110	5	1,050	2	180	8	1,230	76	2,967
Region X	18	240	77	1,281	95	1,521	19	836	25	836	44	1,746	8	1,028	8	665	16	1,693	158	4,950
Region XI	8	99	126	2,569	134	2,665	14	882	22	862	38	1,212	7	925	10	1,180	17	2,105	167	4,938
Region XII	4	255	68	1,265	72	1,553	11	907	22	907	33	1,307	5	500	6	569	11	1,069	116	3,829
Total	132	2,228	657	10,459	789	12,687	294	22,900	377	11,886	671	22,990	117	30,483	155	20,363	272	50,846	1,752	88,523

1/ ABC - Actual/Authorized Bed Capacity

Source: Philippine Hospital Association

From: Solon (1991), Health Sector Financing in the Philippines, Vol. II, RTI/UPSE.

TABLE 1.11
DISTRIBUTION OF LICENSED HOSPITALS BY LEVEL, 1989

REGION	PRIMARY		SECONDARY		TERTIARY	
	G	P	G	P	G	P
I	72	8	17	23	8	5
II	20	34	21	10	4	1
CAR	6	22	21	13	4	2
III	7	58	37	55	7	12
IV	16	46	23	52	10	18
NCR	4	31	9	53	28	45
V	15	66	23	28	6	8
VI	12	15	28	7	9	10
VII	14	25	20	13	8	16
VIII	12	7	29	14	7	2
IX	15	33	18	12	5	2
X	18	71	20	24	8	8
XI	11	125	14	19	7	10
XII	8	73	14	20	4	6
PHILS	165	634	294	343	115	145
			<u>Total</u>	<u>Public</u>	<u>Private</u>	
Primary Health Facilities			799	21%	79%	
Secondary Health Facilities			637	39%	61%	
Tertiary Health Facilities			260	44%	56%	

Source: DOH

diagno-

associa-

facili-

bled From: Solon (1991), Health Sector Financing in the Philippines, Vol. II. RTI/UPSE.

commu-

nursing

B. Ancillary Services

1. X-Ray Unit

The X-ray service is one of the most important facilities of the hospital. It provides service to all the hospital patients. This facility has been a valuable adjunct in the management of medical, surgical, obstetrics, pediatrics, and gynecological cases. Certain provisions, however, are made to protect patients and employees against over exposure to X-ray radiation, radiation from radium and other radioactive substances.

2. The Pharmacy Service

The Pharmacy service provides the drug and medicine requirements for both in-patients and out-patients.

3. The Dental Health Service

The Dental Health Service provides and maintains standard dental health services to hospital patients. Aside from the care of in-patients, this service also takes care of patients in the out-patient department.

4. The Nursing Service

The Nursing Service provides safe, effective, and well-planned nursing care for patients in the medical departments of the hospital. This service includes activities pertaining to the care of patients, technical care or the carrying out of treatment prescribed by the physicians, and those relating to prevention and rehabilitation. It is also involved in research work for the improvement of patient care.

5. Laboratory Department

This department provides facilities for the application of scientific techniques for the diagnosis and control of diseases and for the scientific investigation of clinical phenomena associated with the disease. This department performs all laboratory examinations and provides facilities that will help arrive at the correct diagnosis. The services include fecalysis, urinalysis, blood chemistry, and anatomical pathology. It is also responsible for the bacteriological examination in the different units of the hospital, like the operating room, delivery room, nurseries, central formula room, and the central supply unit.

6. Anesthesia Unit

The Anesthesia Unit of the hospital provides and maintains standard professional anesthesia service to operative and delivery cases. It is concerned with two specific functions: a) to render patients insensible to pain; and b) to provide supportive therapy for surgical patients before, during, and after the operation.

C. Administrative Services

1. The Administrative Services

The Administrative Service directly supervises the following sections: business, personnel, cashiering, dietary, linen and laundry, property and procurement, maintenance and motor pool, dormitory, housekeeping and security.

2. The Accounting Service

The Accounting Service maintains a recognized system of accounting and is responsible for all accounting data and the financial records of the hospital including cost analysis and billing.

3. Budget Office

The Budget Office is responsible for providing assistance to the management of the hospital in the preparation of the annual, quarterly and other levels and types of budgets. It also monitors budgetary overruns and other discrepancies from the approved budget.

4. Admitting and Medical Records

The Admitting Department functions mainly as the center for admissions, transfers, referrals, discharges or deaths. It also plays a role in the field of public relations not only with patients, but also with the community, other hospital agencies, etc.

The Medical Records Section of the hospital is the depository of the patients' medical records which are essential tools for the physician in treating the patient, and serve as a reference for the medical researchers. This section takes care of the medical records of discharged patients and furnishes medical statistics as may be required, specially for the regular Medical Audit. Here, the statistical reports of activities and accomplishments of the hospital are prepared monthly and annually to become permanent hospital records.

Weaknesses in the operations of Philippine hospitals have been investigated. In one of these, Luyon (1985) describes the operations of the pharmacy services of five private hospitals. She specifically studied the purchasing and service policies and practices. She emphasized the need for clearly-written policies and procedures. She also found that there was a lack of specific

objectives to guide the operation and evaluation of the department. These became apparent in the practices inconsistent with known management principles and in the problems identified. Thus, she recommends (pp. 182-185) that there should be a functional operations manual, an activation/intensification of the pharmacy and therapeutic committee, a formulary policy, an approved list of suppliers, purchase forecasting and planning, inventory control techniques, cost-savings schemes, personnel policies, and computerized purchasing and pharmacy operations. She also suggests further studies in the establishment of a simple materials management department for pharmacy, purchasing, dietary (non-perishable foods), general stores, and central supply; and the feasibility of group purchasing among private hospitals.

Alcaraz (1991; p.62) also urges the adoption of the production approach which focuses on the patient flow. This has implications for the architectural design of the whole and different hospital units to effect efficient and quality care. Function-wise, she calls for teamwork and coordination among the various units. This implies good communication and in general, effective personnel management (Benzon, 1972, p.90; Alcaraz, pp.60-62).

Philippine hospitals have, in general, been characterized as somewhat operationally inefficient. High costs, long wait for patients, and low technical performance levels are among the visible manifestations of this weakness. A few exceptions have been reported in the studies reviewed. Most of these efficient hospitals have dedicated leaders who initiated improvements in their operating systems. The issue therefore is whether the systems are inefficient themselves, or, if they are efficient, whether they are implemented ineffectively.

1.5 The Hospitals in the Case Studies

The formulation of appropriate policies to improve the capability of hospitals in performing their mission of providing quality patient care at the lowest possible cost requires answers to basic questions such as: what specific goals do hospital managers have; how are these goals formulated; how do these goals affect their performance as providers of quality health care; how do hospitals go about performing their functions; how are their internal organizations structured; who has responsibility and authority for certain functions; how are investment decisions made; how are pricing decisions made; how do government interventions affect their operations; etc. These questions require in-depth probing into the entire structure of a set of hospitals. Variables and answers to these questions need to be analyzed and correlated within each hospital unit. An understanding of the management of hospitals to guide policy formulation therefore needs the case study approach.

To capture the effects of the variables purported to affect Philippine hospital management and performance, four hospitals were selected for the case studies - two government (one secondary and one tertiary) and two private (secondary and tertiary) hospitals, one in each of the ownership categories in the urban area and the other in a relatively rural setting.

A majority of the studies done on various aspects of hospital management in the Philippines deals with Metro Manila hospitals. There is, therefore, a need to extend our knowledge about how hospitals outside the Metro Manila region are managed.

Region 7 was selected because it has an area consisting of a mix of highly urban and rural areas. There are four provinces in the region: Bohol, Cebu, Negros Oriental, and the sub-province of Siquijor. In the sample of four hospitals for this study two from Bohol and another two from Cebu were picked. These hospitals are referred to in this study as: G3 Hospital, for the government tertiary hospital; G2 Hospital, for the government secondary hospital; P3 Hospital, for the private tertiary hospital; and P2 Hospital, for the private secondary hospital. Some background information on these hospitals is given below.

A. Government Tertiary Hospital (G3)

G3 Hospital is a 200-bed government hospital capable of providing care at the tertiary level in the province of Bohol. What makes this hospital interesting, aside from being a contrast to the chosen tertiary private hospital in the highly urbanized setting of Cebu City, is its relative lack of advanced equipment.

G3 Hospital was established about 60 years ago as a Provincial Hospital. It has three major services - medical, nursing, and administrative support services. It provides hospital services in the different clinical and ancillary departments, namely: surgery, medicine, pediatrics, obstetrics and gynecology, anesthesia, laboratory, radiology, family planning, nutrition and rehabilitation, dental, and communicable diseases and out-patient department. Among these departments only the ob-gyne and the radiology departments are accredited. The other departments do not have accredited physician fellows. In fact, the entire province where it is located does not have accredited physicians in the other fields.

Physical facilities of G3 Hospital include a complete operating room, complete delivery room, pharmacy, under-five clinic, nutre ward, special care unit and ambulance service.

B. Private Tertiary Hospital (P3)

P3 Hospital in Cebu is a 100-bed private tertiary hospital. This hospital is run by a religious organization whose mission is to provide quality health care for all regardless of income. Paying and charity patients share the same facilities. The administrators are also able to maintain and upgrade their facilities and equipment quite often.

P3 Hospital moved to its present site in 1958. It provides services in the following medical fields: medicine, surgery, ob-gyne, pediatrics, EENT, orthopedic, neurology, and psychiatry. All of these departments are accredited by their respective national specialty boards.

The same religious group also runs another hospital in the city and in another Visayan province.

C. Government Secondary Hospital (G2)

G2 Hospital is a 75-bed government district secondary hospital in Cebu Province. This hospital was established in 1959 but was relocated to its present site in 1964. Its catchment area includes one of the cities in the province and two towns. Its facilities include wards, operating room, delivery room and offices of the hospital. In 1970, the nutrition rehabilitation ward was established and its 50-bed capacity was increased to 75. Under the management of the present Chief of Hospital, another expansion program was undertaken. A separate out-patient department, dental, laboratory, family planning and under-six clinic services were added to its existing facilities and programs. In addition, a community hospital in a neighboring island with a 10-bed capacity was established as an extension of the hospital.

D. Private Secondary Hospital (P2)

P2 Hospital is a 29-bed private secondary hospital in the predominantly agro-industrial community of Bohol. It is located approximately 75 meters away from G3 Hospital. It is well equipped with advanced models of hospital equipment, including ultra-sound and dialysis machines.

This hospital is operated by a couple, a lawyer husband and a physician wife. The hospital began out of the wife's desire to practice her medical profession. Thus, it was established in 1978 as a primary hospital with an authorized capacity of 24 beds. Three years later, with the installation of its new facilities and an increase of its authorized bed capacity to 29, it was reclassified as a secondary hospital. Since then, the hospital has continued to acquire new machines and to improve its facilities.

The hospital offers medical and ancillary services, a nursing service and dietetic service with a fifty-five-member staff composed of full-time and part-time medical and non-medical personnel.

CHAPTER 2

EXTERNAL INFLUENCES ON HOSPITAL MANAGEMENT AND PERFORMANCE

In addition to the biases of managers, managerial decisions also depend on the external environment of the firm. The firm's environment includes its customers, suppliers, the government and the intervention mechanisms employed, and its competitors and the nature of competition among them. This chapter deals with the external factors that exist around Philippine hospitals, including those of the four case study hospitals, that affect managerial decisions and their technical and financial performance.

The chapter describes the nature of demand for hospital services, the cooperation among hospitals in providing hospital care, the role of health care financing on the demand for hospital services, the role of technology, the impact of macroeconomic conditions on hospital performance, the role of external organizations, and the impact of government policies on the performance of Philippine hospitals.

2.1 Market Demand

To be able to meet the needs of their constituencies, hospitals have to have a clear understanding of the nature of the hospitalization requirements of the members of the communities they serve. This section deals with the various issues concerning the forecasting of demand for the services of Philippine hospitals.

As indicated in other chapters of this report, the customers of hospitals can be viewed as both the patients and the doctors themselves. Patient demand for hospital service increases under the following conditions (Clemente, 1986):

- a) worsening demographic and socio-economic conditions;
- b) improvement in the health consciousness of the population;
- c) effective mass communication;
- d) existence of Medicare benefits and other health benefits;
- e) high employment rate and personal income; and
- f) high literacy.

Socio-Demographic and Economic Conditions

Although Philippine economic and social conditions can be characterized generally as having improved over the past 7 years following the "people power" revolution, provinces and localities have progressed at different paces of development. As an illustration, the socio-economic conditions of the provinces where the four case study hospitals are located are presented below. P3 and G2 hospitals are located in the province of Cebu while G3 and P2 are in the province of Bohol.

The province of Cebu is situated in the center of the Philippine archipelago and is part of the Central Visayas Region. Cebu has two highly urbanized cities, 3 component cities and 48 municipalities which are politically grouped together into 8 congressional districts. The cities and municipalities are subdivided into barangays which at present number 1,201.

Based on the 1990 Census of Population and Housing, the total population of Cebu province is 2.646 million. Fifty-eight percent of the total population of Cebu province is concentrated in the highly urbanized cities of Cebu and Mandaue, the component cities of Toledo, Danao and Lapu-Lapu and the municipalities of Talisay, Naga and Carcar.

For the period 1980 to 1990, the population of Cebu grew at an average annual rate of 2.3 percent which is considered the highest among the provinces in the region. The rapid increase in the population of Cebu in the last ten years can be attributed to the substantial internal migration, notably to Metro Cebu. Metro Cebu, being the largest and most progressive urban center outside Metro Manila, has since been attracting migrants from nearby provinces, making it the most densely populated province in the region.

In terms of sex distribution, the population of Cebu has an almost equal number of males and females. The urban population of the province comprises 52 percent of the total population. The population is likewise relatively young with 39 percent of the total population within the 0-14 years age group.

The province of Cebu also has a high literacy rate, 93 percent, compared with the other provinces of the region. Of the total number of literate in the province, 51 percent are in the urban centers while 42 percent are in the rural areas.

In terms of health care, the province of Cebu is considered one of the major centers of medical care in the country. There are about 49 hospitals and 923 health centers in the province. Of the 49 hospitals in Cebu, 22 are government-owned while 27 are privately-owned. Most of these hospitals, however, are concentrated in the urban centers of the province particularly Cebu City and Mandaue City.

For dental health services, the national government spent P33.5 million in the province of Cebu from 1986 to 1991. The main beneficiaries of this program were mothers and the school-age population. The nutrition program, on the other hand, amounted to P11.2 million. Activities under the nutrition program included food assistance, vitamin and mineral supplementation and Operation Timbang (mass weighing).

Other programs in Cebu which directly benefitted children and mothers were the expanded program on immunization and the control of diarrhea. For the past seven years, approximately 1.7 million shots of DPT, BCG, poliomyelitis and measles vaccines were administered to infants and children while 416,654 pregnant mothers were immunized with tetanus toxoid. Likewise, 209,295 patients suffering from diarrhea were treated with Oresol.

In the same period, the DOH also implemented the cancer prevention and control program which was piloted in the province of Cebu at a total cost of P10.685 million. The services rendered by the cancer center included the screening of possible cancer patients, the conduct of five different cancer tests and the treatment of afflicted patients either through surgery, radiotherapy, chemotherapy or oral morphine. To date, a total of 1,256 cancer patients have availed of the program's services.

DOH also intensified the delivery of its services in Cebu especially in the national drug drive, leprosy prevention and control, and the maternal care program. It also hastened the implementation of 70 health infrastructure projects costing P21.6 million.

The 1990 Census of Population and Housing has placed the total population of Bohol at 948,315. This comprised 20.6 percent of the region's total population. For the period 1980-1990, the provincial population grew at an average annual rate of 1.6 percent. The population density was at 230 persons per square kilometer. In terms of sex ratio, there were 99.6 females for every 100 males. The population of Bohol is predominantly young with about 40 percent of its people below 19 years old. The province is still largely rural with 75 percent of the total population living in rural agricultural areas.

In 1991, Bohol had a working age population of 594,000. The labor force stood at 372,000 of which 249,000 or 67 percent were males and 33 percent were females. The labor force participation rate (LFPR) in this case was 62.6 percent. The employment rate was 93.3 percent, better than the regional rate of 90.8 percent. The agricultural sector accounted for the bulk, 61 percent, of the total employed while the industry and service sectors accounted for 39 percent of the employed. The underemployment rate in the province was estimated at 50 percent of those employed. The need for full-time employment was more prevalent in the rural areas where 79 percent of the total underemployed were situated.

Bohol has a very high literacy rate. Of its total population 10 years and over, 92.5 percent can read and write.

With respect to health facilities, there are 20 private and 11 government hospitals serving the health needs of Bohol's population. These hospitals have a combined bed capacity of 1,206, i.e., 714 private and 492 government. The hospitals are complemented by 48 rural health units (RHUs), one for each municipality, and 246 barangay health stations (BHSs) strategically located throughout the province.

For the period 1986 to the first quarter of 1992, the Department of Health strengthened its efforts to improve the quality and accessibility of health services and facilities to the poor, unserved, underserved and high-risk groups in the province of Bohol. Thus, ongoing programs and projects were either expanded, repaired or rehabilitated.

To improve the well-being of mothers and children, the Comprehensive Maternal and Child Health Program (MCH) was vigorously implemented in Bohol. From 1986 to the first quarter of 1992, pre-natal care, natal, and post-partum care were provided to 143,773 pregnant

women, 122,393 new-born, and 101,415 mothers, respectively. Some 190,293 children with common diseases were also treated under this program.

Preventive measures against immunizable diseases (i.e., diphtheria, pertussis, tetanus, polio, measles and tuberculosis) were likewise aggressively pursued under the Expanded Program on Immunization (EPI) in the province of Bohol. The number of infants and children immunized were as follows: DPT, 456,270; OPV, 451,956; measles, 138,958; and BCG, 301,220. Meanwhile, 196,057 pregnant women were immunized against tetanus toxoid.

To reduce the incidence of mortality caused by communicable diseases, programs on the control of tuberculosis, schistosomiasis, leprosy and diarrhea were implemented in Bohol. A total of 25,718 case were treated under the Schistosomiasis Control programs, 2,203 cases under the Leprosy Control Program, and 171,893 individuals afflicted with diarrhea were administered oral dehydration therapy.

Efforts to reduce the prevalence of malnutrition in Bohol were likewise strengthened. Towards this end, food supplements and micronutrient supplements of Vitamin A, iron and iodine were given to high-risk mothers and underweight and vitamin-deficient children.

Dental services in the form of oral examination, prophylaxis, filling, extraction, and gum treatment were provided to pre-schoolers, school-age population of 7-14 years, pregnant women and other healthy adults in Bohol.

The advocacy of family planning as a vital component of both maternal and child health, and responsible parenthood were given attention in Bohol. Consequently, an intensive information campaign on medically approved, morally and legally acceptable and more effective and affordable family planning method was launched.

With respect to health facilities, three main government hospitals were expanded, three district hospitals were either completed or expanded, one municipal hospital was upgraded and ten municipal health centers were either constructed, repaired or expanded .

In comparing the socio-demographic and economic conditions of the two provinces, we may note that Cebu is a rapidly growing metropolis with a large component of its economic activities in the industrial, commercial, and service sectors. Bohol's activities, on the other hand, is mainly agricultural.

The presence of a large number of higher category hospitals in Cebu suggests that its population may have better access to medical care. In fact, the seriously infirm in Bohol are usually transported to Cebu for treatment.

TABLE 2.1 TEN LEADING CAUSES OF HOSPITALIZATION, 1989

CAUSE	NUMBER
1. Gastroenteritis, Acute	587
2. Bronchitis, Acute	468
3. Bronchopneumonia	387
4. Bronchial Asthma	233
5. Typhoid Fever	165
6. Gastritis, Acute	146
7. Upper Respiratory Tract Infection	140
8. Influenza (Viral)/Flu	123
9. Koch's Infection/PTB	122
10. Intestinal Amoebiasis	121
	<hr/>
	2,492

Source: PMCC Survey Data Base

TABLE 2.2 NUMBER OF CASES PER CLASSIFICATION, 1989

CAUSE	NUMBER
1. Pulmonary	1,464
2. Gastroenterology	974
3. Infectious/Tropical Diseases	764
4. Obstetrics & Gynecology	472
5. Surgery	303
6. Internal Medicine	235
7. Urology	168
8. Neurology	147
9. E E N T	138
10. Cardiology	136
11. Nephrology	74
12. Pediatrics	39
13. Dermatology	38
14. Rheumatology	29
15. Unidentified Cases	375
	<hr/>
	5,356

Source: PMCC Survey Data Base

From: Solon (1991), Health Sector Financing in the Philippines, Vol. II, RTI/UPSE.

COMMON CAUSES OF HOSPITALIZATION
TABLE 2.3

Causes of Discharges	Service	Generic Name	Dosage per Day	Total Doses Hospital	Length of Stay	Laboratory Exams	Equipment
1. Parturition, normal	OB-Gyn	Ergonovine Maleate (Ergotrate)*	1 Tablet 3 times a day	6 doses	2-3 days	Urine Sugar and Protein Hemoglobin	Microscope
2. Gastroenteritis	Pedia or Medicine	Primarily, Intravenous Fluids (incl. Venoset and Butterfly)	Pedia - 250 ml Adult - 1,000 ml of D50.3 NaCl, D5 Lactated ringers 3-4 times a day	2,000 ml 8,000 ml	2-3 days	Routine Fecalalysis	Microscope
3. Bronchopneumonia	Pediatrics usually	Penicillin G, Sodium or Amoxycillin 1st 2 days (injectable)	1 million units per day 1 gram per day	2 million 2 grams	3-5 days	Chest X-ray	X-ray machine
		Penicillin suspension or Amoxycillin suspension Next 2 days (oral)	1 gram per day 1 gram per day	2 grams 2 grams			
4. Pneumonia	Medicine (Adult)	Penicillin G, Sodium or Amoxycillin 1st 2 days (injectable)	4 million units per day 2 grams per day	8 million units 4 grams	3-5 days	Chest X-ray	X-ray machine
		Penicillin Capsules	2 grams per day	4 grams			
		Amoxycillin Capsules Next 2 days (oral)	2 grams per day	4 grams			
5. Pulmonary Tuberculosis	Medicine	Rifampicin Isoniazid Ethambutol	600 mg 600 mg 1 gram	4,200 mg 4,200 mg 7 grams	7 days	Chest X-ray Sputum exam for acid fast bacilli	X-ray machine Microscope
6. Genito-Urinary Infection	Medicine (Urinary infection or OB Gyn (Genital tract infection))	Amoxycillin	2 grams	4-6 grams	2-3 days	Routine urinalysis	Microscope
		Paracetamol (for fever only)	2 grams	4-6 grams			
7. Bronchitis	Pedia usually	Amoxycillin 1st 2 days (injectable)	1 gram	2 grams	3-5 days	Chest X-ray	X-ray machine
		Amoxycillin suspension Next 2 days (oral)	1 gram	2 grams			
8. Fracture/Dislocation	Surgery (Orthopedics)	No medicine except for (e.g. Mefenamic Acid or Ponstan)	1 gram	2 grams	1-2 days (If fracture is simple and enclosed involving an extremity)	Chest X-ray (2 views)	X-ray machine
9. Wounds	Surgery	Analgesic (as above) Amoxycillin	1 gram	2 grams	1-2 days (if surgery is not needed)		
10. Appendicitis	Surgery (Appendectomy or removal of appendix is done)	Analgesic is given (Antibiotics as in Genito-Urinary Tract Infection is suspected or if Appendix			3-5 days	Complete blood count Blood typing, Urinalysis	Microscope surgical equipment

Causes of Discharges	Service	Generic Name	Dosage per Day	Total Doses Hospital	Length of Stay	Laboratory Exams	Equipment
11. Typhoid Fever	Medicine	Ampicillin or Cheoramphenicol	2-4 grams	8-24 grams	4-6 days	Complete blood count Blood culture	Microscope
		* Dilatation and Curettage (D & C if Abortion is Incomplete)					
13. Gastritis	Medicine	Ergonovine Maleate	1 tablet 3 times a day	6 tablets	2-4 days	Gastroscopy may be done	Gastroscope
		Usually, nothing by mouth if with pain and Nausea Phenothiazine tranquilizers such as Promethazine HCl may be given if indicated at 1 tab. 3 times a day					
14. Peptic Ulcer Disease	Medicine	Antacids such as Magnesium Hydroxide Aluminum Hydroxide	15-30 ml 4-6 time a day	180-800 ml	3-5 days	Endoscopy or Upper G.I. series may be done	Endoscope X-ray
15. Tonsillitis	Medicine	Penicillin capsules or Ampicillin or Amoxycillin Antipyretic such as Paracetamo 500 mg/dose may be given	2 grams	4-6 grams	2-3 days		
16. Amoebiasis	Medicine	Metronidazole (Flagyl)	2,250 mg	5-10 grams	2-4 days	Routine Fecalysis	Microscope
17. Systematic Viral Infection	Medicine	Paracetamol	2 grams	4-6 grams	2-3 days	Complete blood count	Microscope
18. Hypertension (Essential or cause is non-specific)	Medicine	Tranquilizers such as Diazepam or Methyldopa	30 mg or 200-500 mg	90-100 mg 750 mg/2.5 g	3-5 days		Sphygmoma
19. Bronchial Asthma	Pedia or Medicine	Talbutamol	4 capsules a day	8-12 caps	2-3 days	Chest X-ray	X-ray machin
20. Diabetes Mellitus (simple, not insulin dependent)	Medicine	Tolbutamide (Ornase) or Chlorpropranid (Diabinese)	500 mg 250 mg	2.5-3.5 grams 1.5-1.8 grams	6-7 days	Fasting Blood Sugar Urinalysis	Microscope
21. Upper Respiratory Tract Infection	Pedia or Medicine	Adult - Paracetamol (Biogesic)	1 gram	2-3 grams	2-3 days	Chest X-ray	X-ray machin
		L-Carboxymethyl-cystein (Loviscol)	3 tabs	6-9 tabs.			
22. Measles (uncomplicated, no bronchopneumonia or diarrhea)	Pedia	Paracetamol syrup	20-30 ml	60-100 ml.	3-5 days		
		L. Carboxymethyl-cystein (Loviscol)	20 ml.	60-100 ml.			
23. Dengue Fever (uncomplicated, no bleeding)	Pedia	Paracetamol syrup	As in measles	3-5 days	Complete blood count		
24. End stage Renal Failure	Medicine	May need peritoneal or Hemodialysis			Indefinite	Blood, Urea, Nitrogen, Creatinine	Dialysis mac for Hemodial
25. Heart Disease (e.g., simple myocardial ischemia)	Medicine	Isosorbide Dinitrate or Nifedipine	15 mg 30 mg	45 mg 90 mg			ECG machin
26. Asthmatic Bronchitis	Pedia usually	Combine treatment for bronchial asthma and bronchitis		(19) (7)	3-5 days	Chest X-ray	X-ray machin
27. Cerebrovascular disease (simple, stroke such as cerebral thrombosis)		Aspirin Anti-Hypertensives such as in #18 if necessary	1-3 gram	9-13 grams	7-10 days	Spinal or Lumbar Tap Skull X-ray, Cerebral Angiography, ECG	X-ray machin

Average Patient Days of DOH Hospitals by Type of Service and by Type of Hospital, 1989

TABLE 2.4

Type of Service	Type of Hospital		
	Primary	Secondary	Tertiary
Medical	1649	3982	18380
Surgical (Pedia)	63	142	1363
Surgical (Adult)	94	756	7190
Obstetrics	77	809	7022
Gynecology	34	218	1871
Pediatrics	1160	2828	9638
New Born (Alive)	51	603	4477
Genito - Urinary	33	256	986
EENT	85	94	103
Others	624	571	5730
ALL SERVICES	3823	9584	52874

Source of basic data: HOMS - DOH

Average Patient Days of DOH Hospitals by Type of Service and by Type of Hospital, 1989

TABLE 2.5

Type of Service	Type of Hospital		
	Primary	Secondary	Tertiary
Medical	410	904	2793
Surgical (Pedia)	21	28	189
Surgical (Adult)	28	139	976
Obstetrics	33	262	2151
Gynecology	11	61	367
Pediatrics	367	660	1886
New Born (Alive)	24	224	1603
Genito - Urinary	10	61	161
EENT	1	13	140
Others	6	35	420
ALL SERVICES	884	2248	9161

Source of basic data: HOMS - DOH

From: Solon (1991), Health Sector Financing in the Philippines, Vol. II, RTI/UPSE

Leading Causes of Hospitalization

The statistics on the leading causes of hospitalization may indicate the nature of demand for hospital services and the types of services required. Table 2.1 shows the ten leading causes of hospitalization in DOH hospitals in 1989, while Table 2.2 shows the number of cases per classification. These tables indicate that pulmonary cases dominate the demand for hospitalization, followed by gastroenterology in 1989. Table 2.3, an overview of the nature of these cases, indicates that they are normally treated through the hospitals' pediatric and medical services. The equipment needed for their treatment appear to be quite basic and can therefore be handled in primary and secondary levels of care.

Tables 2.4 and 2.5, which show the average patient days and number of patients, respectively, of DOH hospitals by type of service and type of hospital, reflect the heavy usage of medical and pediatric services on all levels of care. Ranking third is obstetrics and then new born services. In secondary and tertiary hospitals, these are followed by adult surgical services.

Tables 2.6, and 2.7 shows the leading causes of morbidity and mortality in the catchment area of G2 Hospital. Here, the leading cause of morbidity, in 3 of the 4 years reviewed, is upper respiratory tract infection (URTI). This is followed closely by bronchitis. On the other hand, pneumonia tops the list of the leading causes of mortality in the area. For G2 Hospital the leading causes for discharge (Table 2.8) are parturition (normal), gastroenteritis, and bronchopneumonia. This suggests a certain degree of correspondence of the community's illnesses to those treated by the hospital.

In the not-so-distant private tertiary care provider, P3 Hospital, the leading causes of discharge (Table 2.9) are parturition (normal), gastroenteritis, and genito-urinary infection. The first two cases are the same as those in G2 Hospital, while the third differs.

In Table 2.10, showing the leading causes of morbidity in the province of Bohol, the catchment area of G3 and P2 hospitals, we note that in the last 3 years reviewed diarrhea tops the list. Pneumonia comes as a distant second in some years. As a cause of mortality (Table 2.11), however, pneumonia tops the list for Bohol. This is similar to that of the catchment area of G2 Hospital.

In Table 2.12, showing P2 Hospital's leading causes of discharge, we note the low incidence of parturition (normal) and the rise of genito-urinary infection, like P3 Hospital, as a leading cause.

Parturition (normal), gastroenteritis and pneumonia are the three leading causes of hospitalization in G3 Hospital (Table 2.13). The question usually raised is why parturition should be treated in a tertiary government hospital when it could very well be treated in lower category hospitals. Responding to this, the chief of hospital of G3 says that mothers rely on the hospital's laboratories and the expertise of their obstetricians. In Bohol only G3 Hospital's department of OB-Gyne is duly accredited. Mothers feel safer in the hands of the hospital's medical personnel than in those of smaller hospitals and clinics. This is particularly true if there are complications

TABLE 2.6 TEN LEADING CAUSES OF MORBIDITY, RATE/100,000 POPULATION
G2 HOSPITAL CATCHMENT AREA

<u>CAUSES</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1992</u>
1. URTI	2,039	1,195	56	6,232
2. Bronchitis	1,529	807	1,558	1,014
3. Wounds, All kinds	684	296	1,516	597
4. Influenza	604	198	937	493
5. Diarrhea, Non-Specific	306	73	894	1,063
6. Furunculosis	272	196	683	828
7. PTB	180	55	452	312
8. Contact Dermatitis	74	93	385	1,116
9. Asthma	73	135	320	371
10. Anemia	68	49	134	122

Source: Hospital Records

TABLE 2.7

**TABLE: MORTALITY, LEADING CAUSES, NUMBER AND RATE/100,000 POPULATION
G 2 HOSPITAL CATCHMENT AREA**

<u>CAUSES</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1992</u>
1. Pneumonia	71	37	49	48
2. Diseases of Heart and Cir. System	55	25	39	11
3. Malignant Neoplasm	20	15	38	24
4. Disease of the Kidney	20	5	38	6
5. Septicima	20	4	15	73
6. Hemorrhage due to violent causes	5	1	10	5
7. Congenital Anomaly	4	1	8	6
8. Perforated Peptic Ulcer	2		4	4
9. Malnutrition	2		4	14
10. Prenaturity	2		3	4

Source: Hospital Records

TABLE 2.8
LEADING CAUSES OF DISCHARGES
G2 HOSPITAL

Cause	1988		1989		1990		1991		1992	
	Number	Rank	Number	Rank	Number	Rank	Number	Rank	Number	Rank
1. Parturition, normal			620	1	694	2				
2. Gastroenteritis			534	3	837	1	465	2	1219	1
3. Bronchopneumonia			440	4	472	3	355	3	354	3
4. Pneumonia										
5. Pulmonary Tuberculosis										
6. Genito-Urinary infection			84	10	78	10	219	5	246	4
7. Bronchitis										
8. Fracture/Dislocation										
9. Wounds										
10. Appendicitis										
11. Typhoid Fever										
12. Abortion			155	7	167	6	204	6	183	5
13. Gastritis					126	8	165	7		
14. Peptic Ulcer										
15. Tonsillitis										
16. Amoebiasis			125	8	180	5				
17. Systematic Viral Infection										
18. Hypertension										
19. Bronchial Asthma			166	6	132	7			122	8
20. Diabetes Mellitus										
21. Upper Respiratory Tract Infection					94	9	51	10	157	6
22. Measles			122	9						
23. Dengue Fever										
24. End stage Renal Failure										
25. Heart Disease										
26. Asthmatic Bronchitis							98	9	92	10
27. Cerebrovascular disease										

Source: Hospital Statistical Report

TABLE 2.9
LEADING CAUSES OF DISCHARGES
P3 HOSPITAL

Cause	1988		1989		1990		1991		1992	
	Number	Rank	Number	Rank	Number	Rank	Number	Rank	Number	Rank
1. Parturition, normal	608	1	845	1	759	1	815	1	946	1
2. Gastroenteritis	397	2	515	2	512	2			575	2
3. Bronchopneumonia	331	4	391	5	372	4	309	5	490	4
4. Pneumonia										
5. Pulmonary Tuberculosis										
6. Genito-Urinary Infection		3	445	3	468	3	581	3	565	3
7. Bronchitis			165	8						
8. Fracture/Dislocation										
9. Wounds										
10. Appendicitis										
11. Typhoid Fever										
12. Abortion										
13. Gastritis	220	7	417	4	235	6	272	6	241	10
14. Peptic Ulcer										
15. Tonsillitis							146	9		
16. Amoebiasis	241	5	105	10	215	7				
17. Systematic Viral Infection							210	7	369	7
18. Hypertension	233	6			297	5	197	8	349	8
19. Bronchial Asthma			135	9	182	10				
20. Diabetes Mellitus							135	10		
21. Upper Respiratory Tract Infection		9			211	9	471	4	273	9
22. Measles	152	10	375	6						
23. Dengue Fever					212	8			377	6
24. End stage Renal Failure	168	8								
25. Heart Disease										
26. Asthmatic Bronchitis										
27. Cerebrovascular disease									420	5

Source: Hospital Statistical Report

TABLE 2.10
TEN LEADING CAUSES OF MORBIDITY
BOHOL PROVINCE

1988 MORBIDITY Number and Rate per 100,000 population			1989 MORBIDITY Number and Rate per 100,000 population			1990 MORBIDITY Number and Rate per 100,000 population		
Cause	Number	Rate	Cause	Number	Rate	Cause	Number	Rate
Bronchitis	26395	3202.78	Influenza	32243	3901.42	Diarrhea	29095	3264.88
Diarrhea	20169	2447.32	Diarrhea	248816	2827.37	Bronchitis	14526	1630.02
TB other forms	2368	287.33	Pneumonia	9199	1048.07	Influenza	3529	266
Influenza	2046	248.26	TB all form	6731	766.88	Pneumonia	8650	976.13
Accidents	1923	233.34	Whooping Cough	1813	206.56	TB all forms	1908	214.11
Pneumonia	1431	173.64	Measles	1274	145.15	Measles	358	40.17
Dysentery	1139	138.21	Dysentery	650	74.06	Whooping Cough	322	36.13
Measles	637	77.29	Typhoid Fever / Parafev	394	44.89	Upper Respiratory Tract	1263	141.73
Disease of Heart	511	62.01	Chicken pox	188	21.42	Other disease w/ unusu	952	106.83
Typhoid / Parathyphoid	296	35.92	Dengue fever	103	11.74	Amoebiasis	490	54.99

**TABLE 2.10 (cont.)
TEN LEADING CAUSES OF MORBIDITY
BOHOL PROVINCE**

1991 MORBIDITY			1992 MORBIDITY		
Number and Rate per 100,000 population			Number and Rate per 100,000 population		
Cause	Number	Rate	Cause	Number	Rate
Diarrhea	18511	2044.68	Diarrhea	39721	4314.11
Bronchitis	10758	1188.3	Bronchitis	6384	693.37
Influenza	2523	278.68	Influenza	2645	287.27
Pneumonia	2856	315.47	Pneumonia	8637	938.07
TB other form	615	67.93	ARI	6801	738.66
Accidents	889	98.2	TN other form	1599	173.68
Measles	159	17.56	Accidents	950	103.18
Dysentery	39	4.31	Measles	525	57.02
Disease of Heart	335	37	Dysentery	28	3.04
ARI	12032	1329.02	Heart Disease	350	38.05

TABLE 2.11
TEN LEADING CAUSES OF MORTALITY
BOHOL PROVINCE

1988 MORTALITY Number and Rate per 100,000 population			1989 MORTALITY Number and Rate per 100,000 population			1990 MORTALITY Number and Rate per 100,000 population		
Cause	Number	Rate	Cause	Number	Rate	Cause	Number	Rate
Pneumonia	471	57.15	Pneumonia	1010	115.07	Pneumonia	771	85.52
Disease of Heart	289	35.05	Heart Disease	881	100.38	Heart Disease	575	64.52
TB other forms	203	24.63	Vascular Disease	436	49.67	TB all form	126	47.8
Malignant neoplasm	111	13.47	TB all forms	380	43.29	Cancer	308	34.56
Diarrhea	81	9.83	Malignant Neoplasm	300	34.18	Accident	254	2.5
Accidents	79	9.59	Accident	215	24.5	Vascular	590	66.27
Measles	39	4.73	Diarrhea Disease	169	19.25	Hypertension	276	30.97
Bronchitis	17	2.06	Newborn condition	167	19.03	Newborn	192	21.55
Influenza	9	1.09	Kidney Disease	149	16.98	Kidney	150	16.83
TB Meningitis	8	0.98	Liver Disease	123	14.01	Peptic Ulcer	166	18.63

TABLE 2.11 (cont.)
LEADING CAUSES OF MORTALITY
BOHOL PROVINCE

1991 MORTALITY Number and Rate per 100,000 population			1992 MORTALITY Number and Rate per 100,000 population		
Cause	Number	Rate	Cause	Number	Rate
Pneumonia	793	87.59	Pneumonia	908	98.62
Vascular Disease	613	67.71	Heart Disease	340	36.93
Heart Disease	459	50.7	Hypertensive Disease	330	35.84
Hypertension	450	49.71	TB other form	67	7.28
TB other forms	365	40.32	Vascular Disease	755	82
Malignant Neoplasm	341	37.67	Malignant Neoplasm	292	31.71
Accidents	236	26.07	Accidents	221	24
Kidney Disease	186	20.55	Diarrheal Disease	93	10.1
Diarrhea	93	10.27	Kidney Disease	149	16.18
Bronchitis	26	2.87	Liver Disease	113	12.27

Source: Hospital Records

TABLE 2.12
LEADING CAUSES OF DISCHARGES
P2 HOSPITAL

Cause	1988		1989		1990		1991		1992	
	Number	Rank	Number	Rank	Number	Rank	Number	Rank	Number	Rank
1. Parturition, normal										
2. Gastroenteritis			126	4	240	4	291	3		
3. Bronchopneumonia	303	2					116	4		
4. Pneumonia	541	1	233	2	256	3				
5. Pulmonary Tuberculosis			76	9						
6. Genito-Urinary Infection	195	6	197	3	312	2	363	2		
7. Bronchitis										
8. Fracture/Dislocation										
9. Wounds										
10. Appendicitis										
11. Typhoid Fever										
12. Abortion										
13. Gastritis			92	5	158	5	86	5		
14. Peptic Ulcer	201	5	63	10	71	8				
15. Tonsillitis			78	8	100	6	59	8		
16. Amoebiasis										
17. Systematic Viral Infection					62	10				
18. Hypertension										
19. Bronchial Asthma										
20. Diabetes Mellitus										
21. Upper Respiratory Tract Infection										
22. Measles										
23. Dengue Fever										
24. End stage Renal Failure										
25. Heart Disease										
26. Asthmatic Bronchitis					84	7	26	10		
27. Cerebrovascular disease							52	9		

Source: Hospital Statistical Report

TABLE 2.13
LEADING CAUSES OF DISCHARGES
G3 HOSPITAL

Cause	1988		1989		1990		1991		1992	
	Number	Rank	Number	Rank	Number	Rank	Number	Rank	Number	Rank
1. Parturition, normal	1015	1			1005	1	931	1		
2. Gastroenteritis	809	2	215	9	735	2	696	3		
3. Bronchopneumonia	600	3	1050	4						
4. Pneumonia					737	3	767	2		
5. Pulmonary Tuberculosis	492	4	760	5	398	4	388	4		
6. Genito-Urinary Infection	473	5			380	5	149	10		
7. Bronchitis	426	6								
8. Fracture/Dislocation	410	7			358	6	341	5		
9. Wounds	234	9	1755	2	277	7	318	6		
10. Appendicitis	171	10					291	7		
11. Typhoid Fever										
12. Abortion					151	10				
13. Gastritis										
14. Peptic Ulcer										
15. Tonsillitis										
16. Amoebiasis										
17. Systematic Viral Infection										
18. Hypertension			379	8						
19. Bronchial Asthma										
20. Diabetes Mellitus										
21. Upper Respiratory Tract Infection			4403	1						
22. Measles										
23. Dengue Fever										
24. End stage Renal Failure										
25. Heart Disease	278	8			263	8	252	8		
26. Asthmatic Bronchitis			1265	3	138	9				
27. Cerebrovascular disease										

Source: Hospital Statistical Report

and when surgery is required. To ease this problem, the hospital has launched an information campaign that mothers need not go to big hospitals for delivery. The campaign has been conducted by the health educators of the hospital. Mothers are even encouraged to give birth at home.

Parallel to this information campaign, the hospital has undertaken an intensive breast-feeding program. Consequently, G3 Hospital is known to be one of the "baby friendly" hospitals. Regular lectures are undertaken to discuss the importance of breast-feeding and to identify fallacies and traditional folk practices regarding breast-feeding. To further reduce the incidence of morbidity, G3 Hospital has intensified activities of the Under Five Clinic.

Other Issues Regarding Demand for Hospital Services

Using estimated sickness of the population to determine the demand for hospital admissions presents some inaccuracies because, as C.P. Crisostomo (1976 p. 57-60) notes from the article of J.R. Dingle (1973), there are three categories of sickness. First, diseases with low probability of being experienced by one individual in his life time such as rare metabolic diseases requiring highly specialized, technologically based intensive care hospitals; second, those with low probability of occurrence but the prevalence is more substantial in the general population like accidents, cancer, burns, heart and blood vessel disorders and infant diseases requiring specialized care of large hospitals; and third, those with a high probability of affecting any one individual, at least once if not frequently, in the course of a life time, such as respiratory infections, gastro-intestinal disturbances, etc.

Crisostomo (1976) suggests that some patients in the third category may prefer self-care by the family or by physicians in the nearby clinics or health centers, while others are admitted in hospitals nearby or in hospitals of their choice.

The accuracy of hospital demand estimates may also be affected by cases in which a patient with a minor sickness, needing only home care, is hospitalized (Crisostomo, 1976 p. 61), or a patient is admitted in a very sophisticated hospital but his sickness does not need the specialized procedure for diagnosis and treatment in that hospital. This problem, however, is refuted in Periquet (1988 p. 44) where an interview of 17 Philippine hospitals indicated the absence of explicit criteria for admission and careful screening in only three hospitals.

The estimate for health care demand is further complicated by the conclusions of the experience of Dr. Fry, as noted in Crisostomo (1976), that patients seek medical care for only about one-fourth of all the illnesses in the community. The rest will accept the discomfort or handle the problem themselves by self-medication.

The other customer of the hospital is the doctor. It is the doctor who determines whether the patient needs hospital care and to which hospital the patient goes. Thus, doctors' preferences is a major determinant for the demand for hospital services.

Bengzon (1972), for example, observes that when doctors started to change their base of operations from one hospital to another, the occupancy of the old hospital base went down significantly. Clemente (1986) also noted that the proximity of the hospital is mainly considered usually during emergency cases only. The doctors influence the decision of the patient as to choice of a particular hospital according to the following factors:

- a) his affiliation with the hospital;
- b) the hospital's completeness and level of diagnostic technology;
- c) the hospital's access to noted specialists;
- d) the hospital's rates; and
- e) the hospital's proximity to the patient's home.

Crisostomo (1976) discovered that the qualifications of the physicians affiliated with the hospital play a significant role in the patient's choice of hospital. The patient's ability to pay and his prestige in the community come next, while availability of beds and price are the least important. In that study of big private hospitals in Metro Manila only 28 percent of the patients resided within the five kilometer radius while 44 percent resided outside the five kilometer radius. Twenty seven percent lived outside Manila and suburbs. Thus, even proximity to residence could not compete with the role that doctors play in attracting patients to a particular hospital.

Panikulam and Patron (1982) report that the Regional Hospital of Camarines Sur, with a capacity of 250 beds is forced to operate at 294 despite the fact that there are 4 other private hospitals within 2 kilometers from the regional hospital. This may indicate preference for government over private hospitals possibly due to price and completeness of facilities.

Although hospitals are able to attract patients through their doctors, Bengzon (1972 p.87-88) observes that among the six hospitals that he studied none was the least marketing oriented.

... very little in the way of innovations to expand services offered has been deliberately planned or accomplished. Yet these very same hospitals have shown that there are possibilities: (1) check-up plans, originally spurred by company and executive demands, have become popular in this day and age of preventive medicine, and if properly marketed, could provide potentially big income with relatively low overhead; (2) prepaid medical services, which is basically retainership, is another possibility, having surfaced as a result of certain laws requiring companies to provide their employees certain medical benefits; (3) non-medical sources of revenue such as coffee shops, gift shops, which can be significant: in 1971, Hospital B grossed P129,000 from its coffee shop, more than the combined gross revenue of P106,000 from EKG and Pulmonary tests, both essential medical services. Unfortunately, however, these new sources of revenue have been accidents stumbled upon rather than the results of study, planning or even serendipity.

On the substitution of outpatient for inpatient care, a study in the U.S. of Davis and Russell (1972 p. 119) noted that:

TABLE 2.14
Volume and Direction of Inpatient Referrals \1

TO FROM	HS	S \2	MC	DH	OG3	OG2 & 1	Priv H	Others	TOTAL	INPATIENT \3	REFERRAL RATE
HS	40	30	8						78	23679	0.3%
S	39	45	764		17		48		913	123200	0.7%
MC	73	116	152				2		343	74537	0.5%
DH	9	179	159		118		2	3	470	8731	5.4%
OG3	32	203	239						474	141363	0.3%
OG2		27	119						146	9444	1.5%
OG1		2	89						91	2191	4.2%
PrivH	3	462	312						777	359541	0.2%
ProvH		11	7						18		
PrivMD	1	50	14						65		
Others	149	23	71						243		
Total	346	1148	1934	0	135	0	52	3	3618		
									3292	742687	
INPATIENT ACCEPT RATE	23679	123200	74537	8731	141363	11635	359541		742687	0.4%	
	1.5%	0.9%	2.6%	0.0%	0.1%	0.0%	0.0%		0.5%		

Sources or Raw Data: Inter Agency Referral Reports, Department Of Health, 1987

\1 TABULATED FROM RAW DATA. Totals may not match reported figures in hospital statistical reports. Importance is in relative volume and direction of referrals.

\2 Specialized Hospitals excludes Tala Leprosarium and Mental Institute

\3 Private and Other Government Hospital beds were estimated based on the formula:

$$\text{INPATIENTS} = \frac{(\text{Occupancy Rate}) * (\text{Number of Beds}) * (365 \text{ days})}{\text{Average Length of Stay}}$$

Where:	Average Length Stay	Private	OG3	OG2	OG1
	Number of Beds	5	10	10	10
	Occupancy Rate	10707	5613	375	87
		46.0%	69.0%	69.0%	69.0%

Hospital Codes:

HS	- Highly Specialized
S	- Specialized
MC	- Medical Center
DH	- District
OG3	- Tertiary Other Government
OG2	- Secondary Other Government
OG1	- Primary Other Government
PrivH	- Private Hospital
PrivMD	- Private Doctor
ProvH	- Provincial Hospital

Basic Data Source: Philippine Hospital Association Survey

The demand for outpatient care was also found to be sensitive to the inpatient occupancy rate. Apparently, when hospital inpatient facilities are crowded, physicians switch more patients into outpatient care. This suggests that a policy aimed at restricting the supply of beds and keeping occupancy rates high may cause a reallocation of resources to less costly forms of treatment.the estimates show that important cross-elasticities exist between the prices of the two types of care and the amounts demanded.

2.2 Networking and Referral System

A hospital referral networking system enables a hospital to provide quality patient care without straining its resources too much by linking with other hospitals in the system. The networking system covers the areas of patient care, training and research.

Periquet (1988) characterize the situation where the absence of a hospital networking system prevails as having duplication and overlapping of activities resulting in unnecessary wastage and underutilization of scarce resources. These duplications were seen in certain laboratory examination and treatment procedures infrequently done but requiring facilities which the hospitals had to maintain, leading to their underutilization.

In a study of the feasibility of a referral networking system, Periquet (1988 pp. 61-62) reports on the status of hospital referrals in 1987. Tables 2.14 shows the volume and direction of inpatient referrals made among DOH hospitals, while Table 2.15 lists the most frequently mentioned reasons for referring by major hospital categories, and Table 2.16 lists the reasons for their choice of hospital to refer to.

Although specialized hospitals as a group have the largest bed capacity among DOH hospitals, the most frequently mentioned reasons for referrals are inadequacy of beds and lack of equipment. This is due to the greater seasonality of the diseases they treat compared to those of the general hospitals. Other reasons for the referrals are complications from the original illnesses which the specialized hospitals are ill-equipped to treat.

The second group of hospitals frequently referred to are the highly specialized hospitals. Thirty five percent of referrals to this group come from tertiary government medical centers and specialized hospitals. Half of their 1987 referrals came from other highly specialized hospitals. Smaller government hospitals as well as private hospitals do not seem to be able to access them. Periquet's interviews with district hospitals reveal the difficulty in transferring patients to higher level hospitals, including this group. There is also notably very little downward referral for the highly specialized hospitals, even for maintenance of charity patients, despite their high cost of treatment.

Periquet (1988) notes that medical centers are the largest recipient of referred patients due to their high level of diagnostic and therapeutic capability in general types of diseases. The largest contributors are specialized hospitals, accounting for 40 percent. Next are private hospitals for capability and financial reasons. There are also very few downward referrals from

TABLE 2.15

REASONS FOR REFERRING TO OTHER HOSPITALS

REASON	DH	S	HS	MC	TOTAL
No Equipment	11	17	12	16	56
Require special service	12	15	14	8	49
No vacancy	4	23	16	4	47
No staff	9	14	10	6	39
Not our specialty	0	5	6	0	11
Patient's request	1	0	0	2	3

Source: Residents Survey, Appendix 1 (Perique)

TABLE 2.16

REASONS FOR CHOICE OF REFERRED HOSPITALS

REASON	DH	S	HS	MC	TOTAL
Better facilities	7	12	8	6	33
Specialized equipment	7	5	11	9	32
Specialized services	8	6	7	10	31
Cost (Government Hospital)	5	15	6	2	28
Accessibility	4	6	0	0	10
Patient's request	2	1	2	0	5

Source: Residents Survey, Appendix 1 (Perique)

medical centers. Due to these, medical centers have the highest occupancy rate (82 percent) among hospitals.

District hospitals have the highest refer-out rates. In all the responses to Periquet's questionnaire, the reason cited was lack of capability in terms of service, equipment, or staff. Referrals are made to medical centers and specialized hospitals.

In the case of G2 Hospital which is a district hospital, the volume of referrals from rural health units and other hospitals/centers is less than the volume of patient out-referrals (Table 2.17). The volume of referrals to other health facilities and other hospitals have been unusually high vis-a-vis referrals from rural health units (RHUs) and other hospitals/centers. Circumstances surrounding referrals to other hospitals are: (a) patients who can afford prefer private rooms and G2 Hospital has only wards, (b) patients or their accompanying relatives or friends request for more experienced medical specialists and better patient management and these are available only in the modern and better-equipped hospitals in Metro Cebu, (c) critical cases require specialized equipment which can be found only in the better equipped hospitals in Metro Cebu, and (d) delay in the repair of basic equipment (e.g., x-ray) and lack of laboratory supplies forces the resident physicians to refer patients to private clinics and hospitals. Moreover, resident physicians are perceived to be lazy. The nursing staff claims that this is one of the reasons for the high volume of out-patient referrals.

Periquet also notes that DOH hospitals confine their referrals to government hospitals because of financial constraints of the patients. Private hospitals also refer to government hospitals for the same reason.

P3 Hospital has not reported their in- and out-referrals. Interviews at the hospital indicate that their practice seems to be that patients are seldom referred to other hospitals.

P2 Hospital has a larger number of in-referrals than out-referrals. Most in-referrals come from lower level government health care units. Like G3 Hospital, some of the out-referrals in P2 Hospital are sent to Cebu for more advanced level of treatment.

G3 Hospital, as Table 2.17 shows, has consistently had more in-referrals than out-referrals. In-referrals come from lower level government and private health care units. Interviewees indicate that majority of out-referrals are transferred to private hospitals either in Bohol or in Cebu. Reasons for out-referrals are: patient's request, need for closer patient management/care, and need for better facilities and equipment.

Periquet's survey also reveals that refusal of referrals by receiving hospitals is due to overcapacity, lack of expertise, and the communicable nature of the disease. This points out the lack of information flow among hospitals in the system. Also reported is an indication of the lack of guidelines in the referral process with patients refused for lack of documentation.

TABLE 2.17 VOLUME OF IN AND OUT PATIENT REFERRALS

		<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
G3 HOSPITAL	IN	292	398	565	553	187
	OUT	194	229	432	305	128
P3 HOSPITAL	IN	-	-	-	-	-
	OUT	-	-	-	-	-
G2 HOSPITAL	IN	-	43	25	18	6
	OUT	-	379	301	420	489
P2 HOSPITAL	IN		22	47	72	58
	OUT		31	18	19	12

Source: Hospital Statistical Report

In 1988, DOH hospitals and other government agency hospitals, under the National Hospital Development Plan, formed a network system. Dr. Periquet (1988) reports that these hospitals implemented the following series of activities to reality the benefits of networking.

- 1) assessment of the existing strengths and capabilities of each hospital in terms of staff, equipment and physical plant;
- 2) definition of the role of each hospital;
- 3) identification of catchment areas to ferret out gaps or overlaps of services, facilitating linkages; and
- 4) establishment of specific network arrangements for training, patient care, research and administration.

Because of the above activities Dr. Periquet (1988) notes that in Metro Manila patient referrals to the appropriate hospital level for medical care or for diagnostic tests are proceeding more smoothly. Hospitals are also now more willing to share or transfer resources based on priority needs. Metro Manila network hospitals now host inter-hospital medical conferences for resident physicians every month. They have also started a cooperative effort in the bulk purchase of selected hospital items at discounted rates. Another on-going project resulting from networking is the rationalization and standardization of medical records.

P3 Hospital has active sharing arrangements with other Metro Cebu hospitals, especially with the Cebu Doctors Hospital, which is managed by the same religious group.

There are no formal networking arrangements among the hospitals in Bohol. However, there is a tacit agreement that they shall share each other's equipment and laboratory facilities. P2 Hospital participates in the equipment sharing agreement among government and private hospitals in Bohol.

When equipment is shared between government and private hospitals, that is, the private hospitals borrow from or lend to government hospitals, the private hospitals usually stand to gain. This is because the private hospitals usually charge their own private hospital rates even to government hospital patients. Government hospitals, on the other hand, charge government rates even to private hospital patients. For example, when the x-ray machine of G3 Hospital broke down, the hospital referred patients to private hospitals. This meant more income for those private hospitals which had the x-ray facilities. G3 Hospital requested, though, for discounts especially for its indigent patients. In order for G3 Hospital to generate revenues, it arranged with the private hospitals that the reading and interpreting of the X-ray plates be done by their own physicians.

G3 Hospital does not specify any private hospital or clinic where the patients should go to avoid suspicion of any vested interests among the private hospitals. While the patients have the choice as to which hospital they should go to, G3 Hospital usually recommends them to the private hospitals with the more advanced X-ray machines.

The ambulance of G3 Hospital is one facility which is frequently borrowed by the private hospitals. This is used to transport patients from their hospital to the pier. These hospitals are charged for the use of the ambulance at government rates determined by the DOH. These rates are antiquated and need to be increased to cover actual costs. This situation has added to the depletion of the hospital's funds.

G2 Hospital has been quite successful in the area of good community relations. This is evident in its networking activities and in the support it receives from the city government. While it is true that many patients have directly complained to the city mayor about the hospital's lack of medical personnel and medical supplies, these conflicts have become opportunities for the public to express their concerns for the financial predicament of the hospital. Here, the chief of hospital and the social worker have objectively presented the hospital's arguments.

G2 Hospital has also established arrangements with the Southern Islands Medical Center (now, Don Vicente Sotto Memorial Hospital) and Cebu Velez General Hospital and Cebu Doctors Hospital for the use of more advanced equipment (e.g, ultrasound and the CT-SCAN) at discounted rates.

G2 Hospital has been availing of the programs of the Hospital Maintenance Service-Visayas Workshop which is located at the Southern Islands Medical Center. This is a joint project of the Philippine and German governments under the Philippine - German Technical Cooperation Project on Hospital Equipment Maintenance in the government health care system.

G2 Hospital has also been very active as a participant of medical-surgical missions initiated by the Cebu Medical Society and as a recipient of medical-surgical missions initiated by US-based chapters of the Philippine Medical Association. For example, medical-surgical missions initiated by the Philippine Medical Association, West Virginia and Aloha chapters, have been coming to the hospital every year since 1988. In addition to providing free medical services, these missions bring equipment and supplies as donations to the hospital.

The government hospital network system has slowly grown to include some private hospitals in the Metro Manila area, such as, Delgado clinic, Makati Medical Center, De Los Santos Medical Center, Polymedic Hospital and St. Luke's Medical Center. Regional linkages are also being developed particularly with the following regional hospitals: Ilocos Regional Hospital (La Union), Bicol Regional Hospital (Camarines Sur), Western Visayas Medical Center (Iloilo), Southern Island Medical Center (Cebu), Tacloban Medical Center (Leyte), Davao Medical Center (Davao City), Northern Mindanao Regional Hospital (Cagayan de Oro), and Zamboanga General Hospital (Zamboanga City).

In a more recent study though, Alcaraz (1991) notes several concerns raised regarding the current state of the networking system: 1) lack of specific guidelines in the implementation of the system on an institutional and national level; 2) absence of an evaluation and monitoring system which measures and assesses the effectiveness of the system; and 3) lack of a centralized comprehensive hospital management information and communication system for the development of integrated planning and control.

2.3 Health Care Financing Programs

In the United States the economic environment faced by hospitals changed drastically in the late 1930s and early 1940s with the establishment of the Blue Cross and Blue Shield insurance by hospital and physician associations as a way for patients to prepay the costs of hospitalization and physician services (Schulz and Johnson, 1983 p. 9). This expanded the number of patients with funds for hospital services.

A more recent development in health care financing is the growth of managed care organizations like health maintenance organizations (HMO). Table 2.18 below shows the basic differences between the traditional health insurance programs, such as the Blue Cross and Blue Shield, and the HMOs.

HMOs provide the contracted hospitals with a large pool of captive patients. This could mean a higher utilization rate of the hospital's facilities and equipment. The fees paid by the HMOs to the hospitals, however, are negotiated and are likely to be very much lower than the usual rates the hospital charges to fee-for-service patients. HMOs also demand a minimum standard of quality of service from contracted providers.

HMOs are reported to offer the following advantages to the overall health care system (Lazo, 1987):

- a) Unnecessary hospitalizations are avoided;
- b) Utilization of preventive and ambulatory services are emphasized;
- c) Patient satisfaction is maintained;
- d) There is less cost to patients;
- e) Doctor satisfaction is high; and
- f) Quality of health care is high as evidenced by accessibility of HMO affiliated hospitals, emphasis on preventive service to members, continuity of care with the referral service and good health outcomes.

Lazo (1987) notes some criticisms raised against HMOs: they exert competitive pressure on health care providers especially among specialists who would not compromise their standard fee-for-service rates with an HMO concept of service remuneration, close relationships between physician and patient may be lost, and utilization and cost containment policies of HMOs may sacrifice the quality of health care service. Despite these criticisms, the number of HMOs and the number of persons covered may be expected to increase, as in the U.S., and economies of scale may be attained in the health care system as well as better financial conditions among hospitals.

In the Philippines, the first HMO was established in 1982. Today there are 20 HMOs with a total membership of over 800,000 or 1.3 percent of the population. Most of the members are in the B and C income classes. Philippine HMOs are organized into the Association of Health Maintenance Organizations of the Philippines (AHMOPI). It currently has 9 HMO members. About 90 percent of the total HMO enrollees today belong to AHMOPI.

TABLE: 2.18
Basic Difference: Insurance vs. HMO

	Insurance	HMO
1. Payment Scheme	Reimbursement	Direct Provider
2. Coverage	Hospitalization curative out-patient	Curative / Preventive health care
3. Deductible	Yes	No
4. Co-insurance	Yes	Only in non-affiliated hospitals
5. Maximum limits	Yes	Only for dread diseases
6. Professional fees	With limits	No out-of- pocket expenses
7. Preventive health	No	Yes
8. Orientation	Hospital	Out-patient clinic
9. Choice of doctor	Free choice	Free choice within the panel of specialist

HMOs in the Philippines today are faced by problems such as: the market's lack of knowledge and understanding of the HMO concept, cutthroat competition, low priority on health expenditures among Filipinos especially on prepaid health plans, and antagonism of "cartelized" health providers towards HMOs. Despite these problems HMOs are projecting a rapid growth of the industry with its estimated potential enrollees of 15 million. HMOs are looked upon as a way of paying for the rising health care cost brought about by inflation, the high cost of technology, and unrestricted fees and rate setting by providers.

2.4 Technology

Essentially, one might say that hospitals are technology driven. Alcaraz (1991), in her interviews with physicians and administrators of both government and private hospitals, confirms the critical role of technology in the efficient delivery of health care services. There are, however, several problems related to hospital technology in the Philippines: 1) the maldistribution and uneven distribution of technology and of technology-intensive tertiary government hospitals which are concentrated in the National Capital Region, and 2) the rapidly changing technology and the rising costs of its maintenance and the eventual obsolescence of equipment which make it difficult for both private and government hospitals to cope with their limited resources.

Alcaraz (1991) points out the need to identify and prioritize the requirements for specialized technology and for the cooperation between private and government hospitals in areas such as technology acquisition, utilization and maintenance.

The outlay of large sums of money on projects which entail a long term process of cost recovery requires a careful market and technical, financial, and strategic analysis to make sure that the decision to make the outlay is sound.

Bengzon (1972) observes that in the six hospitals covered in his study, decisions on the acquisition of certain specialized equipment are made along "medico-political" terms. "The doctor who owns substantial shares or wields considerable influence will make sure that the facilities and services of his specialty are offered, whether or not such facilities and services are warranted by volume demands or justified on economic grounds." Among the six hospitals, for example, four have expensive machines for cobalt therapy when only one is sufficient to meet the demand.

Cantos (1990 p. 26) warns hospital owners and managers against the dangers of a sudden impulse to purchase new machines because of the availability of funds or because another hospital has it or simply to improve the image of the hospital resources. Cantos (1990) suggests that a committee in the hospital be formed consisting of the owner, administrator, and medical staff, to carefully consider the financial capability, the priority of the needs of the hospital, and the nature of the benefits which will accrue from the machine.

2.5 Macroeconomic Conditions

Hospital performance, both in the technical and financial aspects, are subject to the changes in macroeconomic conditions. The macroeconomy affects the demand for hospital services as well as the hospitals' access to the resources needed to meet these demands.

The major economic factor affecting demand for hospital services is personal income. It is estimated that 70 to 80 percent of the Philippine population is medically indigent, another 5 to 10 percent can pay for basic health care out-of-pocket, while only 5 to 10 percent can afford to pay for catastrophic illnesses. Higher income levels do not necessarily mean a proportional increase in demand for hospital services but it increases the demand for higher quality services. This also means an improvement in the consumers' capability to pay for better service. A continued increase and improvement in the distribution of personal income will therefore mean a shift in the demand from low rate to higher rate rooms in hospitals, allowing hospitals to improve their rate of cost recovery.

The Philippine gross national product picture, from which personal income and personal consumption expenditures are derived, has been very uneven during the last 6 years. After peaking at an annual growth of 6.74 percent in 1988, Philippine GNP growth has been dipping

ever since and with the international economic slump the prospects for significant improvements are not so bright.

On the side of costs, hospitals are affected by such macroeconomic variables as the rate of inflation, foreign exchange rates, interest rates, and energy policy.

Inflation affects the hospitals' general cost of operations as wages of hospital workers and maintenance costs are adjusted faster than the capability of the hospital to pass on these cost increases to customers. Since 1989, the Philippine inflation rate has broken through the double digit level. Bottlenecks in the supply of basic commodities have created the inflationary pressures. With the recent breakup of OPEC and the rise of the peso value against the dollar we may see in the short-run a decline in the inflation rate.

Being technology-intensive institutions, hospitals are very sensitive to the fluctuations of foreign exchange rates because a large part of the technological inputs have to be imported. From hospital supplies to the latest medical journals to high technology equipment, hospitals have to pay for them in foreign exchange. Bengzon (1972 p. 53), for example, relates how one of the hospitals in his study had a substantial portion of its current assets tied up in marginal deposit for its equipment import which had been substantially affected by devaluation. The recent improvement of the peso to the US dollar value should be an encouragement to Philippine hospitals to embark on a technology upgrading program.

With many of its resources being imported, hospital performance is also very sensitive to import tariff policies. Import liberalization will greatly ease the financial burdens on hospitals for their imported supplies and equipment.

High market interest rates, coupled with the low profitability levels in hospital investment, have made the expansion of the overall hospital industry capacity lag behind demand. Hospital bed to population ratios have remained very low in many areas of the country. For the existing hospitals, high interest rates mean shelving expansion projects and financial pains on the repayment of existing loans. As Senator Romulo (1990) reports, "of 24 selected hospitals with capital investments from private sources, we have seen only six tertiary hospitals reporting having gotten appreciable returns on their investments for three consecutive years, while 18 hospitals or 75 percent registered losses."

The deteriorating capability of the Philippine energy sector to meet the rising demand for electricity poses increasing costs to almost all business sectors, including hospitals. With hospital operations highly dependent on the availability of electric power, the need to operate their own electric power generators increases their operating costs substantially.

2.6 External Organizations

The most prominent organization that supports Philippine hospitals is the Philippine Hospital Association (PHA). Founded in 1949, the PHA now has a total membership of 1,727 government and private hospitals with a total bed capacity of 86,523. Membership in the association is limited to hospitals licensed by the Bureau of Medical Services.

The PHA conducts regional seminars for its members on such diverse topics as: legal matters and labor laws affecting hospitals, PMCC Rules and Regulations updates, Medicare-HMO tie-up, and hospital networking.

The PHA is also represented in the board of the PMCC where member hospitals are given the opportunity to ventilate their complaints on the Medicare system and get results. PHA is also represented in other government agencies such as: the NEDA, DECS, DBP, Philippine Cancer Society, Philippine Tuberculosis Society, and many others. PHA is also active in supporting legislation that benefits the hospital sector.

2.7 Government Policies

This section discusses government intervention in Philippine hospitals. The first sub-section discusses general intervention mechanisms, such as licensing laws, labor laws, etc. The second sub-section discusses the local government code.

2.7.1 General Intervention

Schulz and Johnson (1983 p. 295) point out the need for government intervention in the health care industry:

The health industry is a classic example of market failure. Economists will point out that the free enterprise system is inoperable in health care because:

Externalities are important. This means that health care must be provided to all citizens whether or not they want or deserve it because those who do not receive health care are a loss or hazard to the rest of society.

Consumers are uninformed. Consumers cannot judge the type of service they require nor its quality as they can when it comes to purchasing other goods such as food, housing, automobiles, etc.

Demand in the medical market place is largely determined by the suppliers rather than the users of service. Physicians determine whether or not diagnostic and treatment services are needed and, if so, which ones. Hence it is a sellers' market that seems to require some kind of external regulation.

There is no freedom of entry into the supply market. Supply and demand factors do not operate in the health industry. It functions more as a monopoly. When demand increases it is very difficult and costly to increase the supply of physicians and hospitals. (However, today there is concern that the market does not control for oversupply in relation to need; that is, hospitals continue to expand or retain services in the face of declining need or demand as evidenced by duplicated and unprofitable obstetrical, radiation therapy, and pediatric units.) They concluded that in case of market failure the industry must be controlled like a public utility, for example.

In the United States, Schulz and Johnson (1983, pp.298-305) describe the legislation affecting hospitals. The licensing regulations, one of the earliest laws, have minimal effects since the revocation licences is done only in those institutions with gross evidence of negligence. The area wide Health Planning (or Hill-Burton Act of 1946) and the Certificate of Need Laws limited the proliferation of unnecessary laws.

In the Philippines the following government agencies have been mandated to regulate hospital operations:

- (1) Department of Health for licensing and Medicare insurance claims.
- (2) Department of Labor for the implementation of the Labor Code for hospital personnel; and
- (3) Department of Industry, specifically the Board of Hospital Investments to encourage the private sector to put resources in the hospital industry through tax incentives (e.g., tax allowance for investment, capital gains tax exemption, incentives to hospital benefactors, granting moratorium on payment of amortization, reduction of electric-power rates).

Dr. Clemente, president of the Philippine Hospital Association (PHA), notes that the government is not very strict in implementing the licensing laws (Clemente, interview, Capitol

Medical Center, August 27, 1992). There are instances of licensed hospitals with beds within residences and approval of false Medicare claims. On the other hand, Dr. Yolanda Mison, PHA Executive Director, says that there are hospitals which find it difficult to comply with the manpower and facilities requirements prior to licensing. A study on how to update the licensing standards (Mison, interview, PHA office, July 24, 1992) needs to be done. Bernardo (1992, p.24) says: "the setting of just one "minimum" hospital standard that is made applicable nationally without any qualification is unrealistic..." Socio-cultural and economic factors have to be taken into account.

For example, in the process of renewing its license for 1993, the following deficiencies of G2 Hospital have been noted: x-ray machine is out-of-order, ECG machine is out-of-order, there are no disaster control programs, the pharmacy license is still at the Bureau of Food and Drugs, and there is no laboratory license. Non-compliance with any one of the above policies is tantamount to non-renewal of its license.

Government policies which have shown to be favorable to hospitals include the networking mechanisms (Clemente, 1991 Annual Report of PHA President, pp. 13-15) which allow for sharing of resources (bulk purchasing is an example), increases in Medicare contributions, and Gamot sa Presyong DOH (generic drugs at low prices). Negative attributes of Medicare include delayed payment of Medicare services from both GSIS and SSS and slashing of claims without explanation (Clemente, 1990 Annual Report of PHA President, pp.11-12). Clemente (interview, 1991) also mentions that the no-deposit law makes it difficult for private hospitals to stay financially viable.

On the Labor Code, Clemente (interview, 1991) cites the strikes in Metro Manila hospitals a few years ago. Luckily, the other hospitals managed to assist the beleaguered ones and until today, the hospital labor front is quiet.

On the other hand, the recently passed Magna Carta of Public Health Workers, if implemented, will be beneficial to all hospital personnel. The objectives of this are: a) promote and improve the economic well-being of the health workers, b) develop their skills and capabilities to deliver health projects and programs, and c) encourage those with proper qualifications and abilities to join and remain in government service. Other privileges include the following: a) overtime pay, b) additional compensation when required to work during rest day, c) night-shift differential, d) hazard allowance, e) subsistence allowance, f) longevity pay, g) laundry allowance, h) remote assignment allowance, i) housing privileges, j) free medical examination, k) compensation for injuries, l) highest basic salary upon retirement, m) salary scale progression, n) RATA for municipal health officers, o) equality in salary scales, p) prohibition of deductions. The hospital personnel of G2 Hospital look forward to its implementation.

Regarding the Department of Industry incentives, no studies have been done to assess their effects.

Government hospitals are also faced with a shrinking budget. The requested P10 billion budget for 1992 had been slashed down to P3 billion by the Department of Budget to pave the way for the implementation of the Local Government Code.

2.7.2 Local Government Code

From 1992-93, there was no single piece of legislation which stirred as many comments as the Local Government Code even if the DOH had come up with the implementing rules and regulations (Department of Health Rules and Regulations Implementing the Local Government Code of 1991, DOH Task Force on Decentralization, 1992). While the publication has clarified some things (e.g., the local health boards), still many voiced their concern about the untoward effects (e.g., too much "politics," decrease in public health services, lack of career path). No less than the former Secretary of Health, Alfredo R.A. Bengzon (1992, p.9) said that there is a need to be united on the issues. The new Secretary of Health, J.M. Flavio is optimistic about the LGC (Department of Health Rules and Regulations Implementing the Local Government Code, p. iii).

As we move into the post-devolution phase, the budding relations between the department and the various Local Government Units must be nurtured carefully as the national agency and local government collaborate to improve both performance of LGUs for health and quality of community life.

A study commissioned by the PHA Metro Manila Chapter, however, expresses serious apprehensions regarding the Local Government Code. The study points out Title 1 Sec. 17 of the Code which gives the responsibility of the delivery of basic facilities particularly on health services, to the local government units. This includes the "implementation of programs and projects on primary health care, maternal and child care, and communicable and non-communicable disease control services, access to secondary and tertiary health services, purchase of medicine, medical supplies, and equipment needed to carry out the services."

The transfer of these functions from the DOH to the LGUs may affect the integrity and performance of the health service - specially during the transition period or in the process of devolution. The absence of clear-cut rules, the time it will take the LGUs to translate these rules into working programs, and the availability of resources needed to translate working programs into actual delivery, are critical considerations to ensure that in the interim, no breakdowns in the health care delivery system will be experienced by the end-users.

Another area of apprehension is on the need for the system to be operationally integrated to ensure that the subsystems function to support the overall thrust. The use of scarce resources have to be prioritized according to needs and maximum effectiveness. With decentralization, duplication might occur with the DOH pursuing its own programs and LGUs implementing their own. What may result is an overall inadequate health care delivery due to wastage of efforts and resources. A DOH representation in the local health board may not solve this problem at the macro-level.

The private health care sector may also be affected. The networking facility which the DOH started to institutionalize with success could fail because of territorial constraints. This could happen if the nearest hospital facility may be under another LGU. With autonomy in the taxing power given to the LGUs, different tax rates may prevail among different LGUs. Hospitals located in areas where tax rates are set high will have to contend with higher costs compared with another hospital in a low tax area. This will put more emphasis on price rather than accessibility in consumer choices of hospitals. Thus, hospitals in high tax areas may be forced to close due to the lack of market.

Since the LGC is in its initial stages of implementation, studies are needed to show its actual effects, both beneficial and deleterious. These should lead to modifications in order to make it responsive to the needs of the majority of the Filipino people.

Among the case study hospitals, the local government code affects directly only G2 Hospital through the devolution process. G3 Hospital is not directly affected since it remains under the DOH.

By March 30, 1993 a feeling of uncertainty which had prevailed among the hospital management and staff of G2 Hospital in the past month intensified with the imminent implementation of the Local Government Code of 1991, by April 1, 1993. The personnel of G2 Hospital have never been in favor of the devolution of the Department of Health. The Chief of Hospital aptly expresses these sentiments. "There are no clear-cut policies. We don't know what is going to happen next. Governor de la Serna (of Cebu Province) has told us: 'pagdala mo ug inyong kuwarta (bring your money)'."

It had been made clear that G2 Hospital's two catchment areas were now to be under the district supervision of their respective municipal governments. On this the chief of hospital adds, "there was closer medical supervision with the integration, thus, assuring better performance in the field. With the implementation of the local government code, the undertaking of health projects will be subject to the priorities of the local government units. The Department of Health should have been exempted from the devolution. The lives of people are at stake here."

Given the financial problems and conflicts brought about by the implementation of the local government code the hospital may be better off with streamlined operations and with fully addressing the needs of the indigent patients. This is further justified by the low occupancy rates brought about by the high volume of out-referrals of patients.

2.8 Summary

This chapter has presented the external environment in which Philippine hospitals operate. Its consumers and the nature of their demand for hospital services, the relationship among hospitals in terms of cooperation, health care financing, technology, macroeconomic conditions, external organizations, and government policies were discussed.

Philippine hospitals are faced with typical third world ailments such as gastrointestinal and pulmonary diseases. What is noted though is that there may be an imbalance in the composition of the hospital system. The number of hospitals may be skewed towards the higher categories compared to the needs of the population. Many of the leading causes of hospitalization in the tertiary level hospitals are treatable in lower categories.

There is an apparent system of equipment sharing among all hospitals (government and private) in the areas examined. This, however, has not eliminated fully the duplication of expensive and underutilized equipment, especially where such machines become important factors in the competitive environment.

The growth of the number of people enrolled in HMOs is an encouraging sign for private hospitals which face a market with low purchasing power and low priorities for health care expenditures.

Technology vintage in private hospitals appears to be within about 5 to 10 years behind what is commonly used in developed countries. Government hospitals, however, appear to have technology in much earlier vintage, with equipment as old as 20 years. Measures are needed to upgrade the technology in both private and government hospitals in an economical fashion.

The general improvement in economic conditions in both areas (Cebu and Bohol) has helped boost the demand and affordability of services provided by private hospitals. Government hospitals, however, have been squeezed by government budgetary constraints and inflation.

Among the four hospitals studied only G2 Hospital is devolved. From DOH-governed it is now under the Provincial Health Office. At first the Governor refused to accept the hospital without their own funding. This resulted in a three month delay in salaries. The fear of drastic transition had come to reality. Without salaries, the medical staff stayed home.

Licensing regulations appear to be lax allowing hospitals several warning notices to comply with the licensing requirements. This has allowed substandard hospitals to continue operations to the detriment of the well-being of their patients.

CHAPTER 3

MANAGERIAL DECISIONS AND CONTROL SYSTEMS IN PHILIPPINE HOSPITALS

This chapter describes the goals and the decision making processes in Philippine hospitals and the role that key actors in the hospital scene play in these decisions. These include decisions to establish the hospital, planning processes, capital expenditure decisions, budgeting, personnel and staffing decisions, and pricing decisions. The last section of this chapter deals with the control systems in place in Philippine hospitals.

3.1 Goals

As noted above, hospitals generally endeavor to provide quality patient care at the lowest cost. The motives behind the establishment of a hospital, however, have evolved from purely charitable to possibly one of profit.

Green (1974, pp.39-55) reviews the goals of hospitals in the western world. Foremost is patient care and treatment to keep the population healthy. The problem lies in the definition of health and how it is measured, or judging what proper patient care is. These make the assessment of hospital performance based on the goal of patient care and treatment difficult.

Hospitals also have teaching and research goals. Both may conflict with the first goal especially from the point of view of the patient. Being interviewed and examined by several persons (teachers and students) could be unpleasant to a patient and may result in being treated as a case or object rather than as a person. Being a subject in a research may lead to unnecessary laboratory tests and drug intake.

Patient care may also suffer because of another goal: profit. It could mean unnecessary expenses (e.g., additional laboratory exams and prescriptions) for the patient. It could also mean cutting back the needed resources for patient management.

In addition, Green sees the need for translating the above goals to more operational ones which would include rules and procedures. Moreover, hospitals have to contend with group (e.g., medical, labor) and individual goals (e.g., a young doctor's research work). Management has the hard task of harmonizing all these goals for the benefit of the organization, its personnel and clientele.

Davis (1972) points out possible alternative non-profit goals or objectives of hospitals: (1) recovery of costs; (2) output maximization; (3) output and quality maximization; (4) utility maximization; and (5) cash flow maximization. Davis reports that evidence in the U.S. for 1961-69 shows

that non-profit hospitals serve more patients than for-profit hospitals due merely to their larger average size. For-profit hospitals in the same bed-size category also serve more patients per bed than non-profit hospitals. For-profit hospitals have also expanded and

increased production more rapidly than non-profit hospitals. Non-profit hospitals, however, employ more capital per day of care rendered than for-profit hospitals. Small for-profit hospitals have more employees than non-profit hospitals, however, as bed size exceeds one hundred, non-profit hospitals tend to employ more personnel per patient day.

A greater proportion of non-profit hospitals than for-profit hospitals possesses such specialized facilities as blood bank, pharmacy, physical therapy department, pathology laboratory, premature nursery, post-operative recovery room, radioactive isotope therapy, and intensive care units.

In Bengzon's study (1972 pp. 22-24) of six stock and non-stock Philippine hospitals, he found that for the non-stock hospitals, which were dominated by doctors, the primary motive for their establishment was to have a base for the doctors' practice, as well as, a source of patients. Others who participated in the establishment were motivated to help their doctor-relatives, to pay a debt of gratitude, or to engage in philanthropy. Bengzon asserts that profit or direct return on investments was not a primary consideration.

Responses of the non-stock hospitals to Bengzon indicate that they were also not concerned with profit. They stated that their being in the hospital business is part of their religious mission.

In the four case study hospitals the following were observed to be their explicit goals.

A. Government Tertiary Hospital (G3)

The primary mission of G3 Hospital is to provide the best possible care and treatment to all in need of hospitalization regardless of race, creed, color, social status and political belief. In this connection, G3 Hospital pursues the following beliefs:

1. That the patients are people with individual needs, that is, physical, spiritual and emotional needs.
2. That the patients are the reason for the hospital's existence: thus, the restoration and maintenance of health and well-being are ultimate aims of patient care;
3. That the patients, as well as the health workers, are part of the social structure and therefore will endeavor to work closely with allied professions, patient's family, and the community in planning for his care;
4. That hospital service goals can best be attained only through cooperative and coordinated planning, mutual understanding, conscientious dedication of all who are privileged to take part or contribute in that care.

In addition to the aforementioned beliefs, the communicable diseases ward, the medical ward, and the surgical nursing service department have adopted specific philosophies.

Communicable Diseases Ward Philosophy:

A patient is any person, well or ill receiving services from the health practitioner. Nursing is concerned with services that are directed towards providing care which promotes and maintains health, prevents, detects, and treats diseases and disability and restores the highest possible level of health following illnesses or an injury. Ergo, we the communicable diseases ward personnel believe that it is our joint responsibility to render these services based on our learned principles and on the belief of the value and uniqueness of every person.

We strive for a holistic view of man, his totality as a person, not a fact or a theory, including the social, cultural, and psychological factors as these affect the patient. With our knowledge and skills, we hope to continue growing mentally, so that an improved quality of nursing care may be rendered to all patients regardless of culture, race, religion or ethnic background. We will try to extend our care not only to the patient but also to his family and community as well, to gradually change their unscientific knowledge, attitudes and practices regarding health for the improvement of our community.

Medical Ward Philosophy:

A patient is any person well or ill, receiving services from the practitioner. Nursing is concerned with services to this person - services that are directed toward providing care which promotes and maintains health, prevents defects and treats diseases and disability and restores the highest possible level of health following illness or injury.

Ergo, we the medical ward personnel, believe that it is our joint responsibility to render these services based on our learned principles and on the belief in the value and uniqueness of every person. We strive for a holistic view of man, his totality as a person, not a fact or a theory, including the social, cultural, and psychological factors as these affect the patient.

With our knowledge and skills we hope to continue growing mentally so that an improved quality of nursing care may be rendered to all patients, regardless of culture, race, religion, or ethnic background, we will try to extend our care not only to the patient but also to his family and community as well, as to gradually change their unscientific knowledge, attitudes and practices regarding health for the improvement of our community."

Surgical Nursing Service Philosophy:

The major concern of the Surgical Nursing Service Department is to render services primarily to surgical patients' needs in general. When we talk of patients' needs in the Department, we refer to the patients as a biopsychosocial being. Since this Department is primarily for surgical cases, the cases specifically encountered are those that are purely surgical. But related cases other than those mentioned are also to be treated accordingly and not to be neglected. The focus then in giving or rendering care in this Department is geared more towards surgical cases, the needs of patients before and after surgery. We refer to these as the pre-operative and post-operative care of the patients. Before rendering services as has been mentioned above, harmonious relationships should be maintained among members of the surgical team and other personnel. Above all, as nurses, we should not only establish harmonious relationship with the personnel in this Department, but also with the patients and their families in order to have cooperation in assessing and meeting his needs.

The objectives of the hospital are expressed as follows.

General Objective:

To improve the welfare of the population through the reduction of morbidity and mortality from diseases prevalent in the (community) and control of health-related problems/conditions that have negative influence on the health status of the (community) with the active participation and involvement of the people of the village/communities and other health related agencies.

Specific Objectives:

1. Health and Health-Related Objectives
 - 1.1 To deliver effective and efficient tertiary medical and health care to the patient.
 - 1.2 To preserve the health of the people through preventive and rehabilitative aspects of medical and health care.
 - 1.3 To maintain, sustain, and coordinate primary health care development activities in already initiated rural areas through the integration of (lower level) health offices.
 - 1.4 To reduce the infant mortality rate (IMR) from 63.2%/1000 in 1980 to 48.7%/1000 live birth in the next six years, 1987-1992.
 - 1.5 To reduce the crude death rate (CDR) from 8.3/1000 in 1980 to 7.3/1000 population in the next six years, 1987-1992.

- 1.6 To reduce the crude birth rate (CBR) from 32.3/1000 in 1980 to 29.3/1000 population in the next six years, 1987-1992.
- 1.7 To reduce the population growth rate from 3.4 percent in 1980 to 2.2 percent in the next six years 1987-1992.
- 1.8 To increase the proportion of normal and mild underweight pre-schoolers from 83.8% in 1992 to 88% in 1987-1992 and school children from 84.9% in 1982 to 91.8% in 1987-1992.
2. Management Objectives:
 - 2.1 To provide for the teaching and training of resident trainees, medical nursing, midwifery and other para-medical students.
 - 2.2 To develop the medical staff and other hospital personnel by sending them to in-service training and seminars in Cebu or Manila with the approval of the Regional Director.
 - 2.3 To train, improve management planning and technical skills of health and health - related workers at all levels from staff management to rank and file responsible in delivering effective and efficient health programs and projects.
 - 2.4 To improve intra/intersectoral collaborations for the support of primary health care development activities.
 - 2.5 To undertake studies and researches to improve planning and management of programs and to improve service delivery.
 - 2.6 To continue the upgrading of hospitals to their appropriate level of service by acquiring sophisticated equipment and facilities and upgrading of services capabilities of personnel.

Regarding quality patient care, the hospital staff state, "We have to treat the patients using a holistic approach and give comprehensive care to patients. This means that patient care includes not only the physical aspect but also the psychological and spiritual care of the patients."

The staff's awareness of hospital goals and objectives, especially health-related objectives is reinforced by regular general meetings every third Wednesday of each month. Department meetings and section meetings are also conducted every now and then.

B. Private Tertiary Hospital (P3)

P3 Hospital, as a religious hospital aspires to heal not only the physical but also the spiritual well-being of its patients. This goal is evident in its various policies and practices regarding patients, staff, and the community.

C. Government Secondary Hospital (G2)

The mission of G2 Hospital is to provide health services to the constituents in its catchment area, eighty percent (80%) of whom are indigent. These health services are generally classified into two categories: curative services and preventive services. Preventive services include such programs as immunization, environmental sanitation and the promotion of breast-feeding. It is noted that some of these programs had been dependent on the priorities of the incumbent Secretary of the Department of Health. For instance, the primary health care program, which was initiated during the administration of former Secretary Jesus Azurin, is no longer given emphasis by the hospital. In fact, the barangay health care committee in the catchment areas exist in name only. At present, in keeping with the programs and priorities of Secretary Juan Flavio, G2 Hospital includes the family planning program as one of the priorities.

The objectives of the hospital are presented in Table 3.1, with the corresponding strategies, activities and actors. Certain issues and critical success factors surround the operational goals, such as, the provision of high quality patient care, cost containment, good community relationships, recruitment and retention of professional staff, planning for expansion of hospital facilities, teaching and sharing services with other hospitals. Table 3.2 presents the internal critical success factors of G2 Hospital. Table 3.3 presents the external critical success factors of the operational goals.

It is evident that the hospital's medical and administrative staff are aware of the mission, goals, and programs of the hospital. These are properly disseminated not only through memoranda and circulars but also through regular general meetings (which are also referred to as district meetings), sectional meetings and administrative meetings.

On the provision of high quality patient care, the staff of G2 Hospital have adopted the popular dictum, "do everything possible, given the constraints." The chief of hospital admits that they can never assure complete patient satisfaction owing to budgetary constraints. In most cases, the budget allocated for the hospital is less than its proposed budget. Sometimes, the necessary medication can never be given to the patient - at most, depending on whatever stocks are available in the pharmacy, only the initial dose can be given. The problem is further compounded by indigent patients who depend on the hospital for free medicines.

D. Private Secondary Hospital (P2)

Goals are indirectly made aware to the staff of P2 Hospital through informal discussions. There are no orientation mechanisms or regular means of communication which explicitly

TABLE 3.1 OBJECTIVES OF THE G2 HOSPITAL

OBJECTIVES	STRATEGY	ACTIVITIES	ACTORS
1. To reduce population growth	Coordinate with Popcom and the family planning workers of the rural health units	a) Motivate women of child bearing age to use family planning methods b) Remotivate women using family planning methods to use more effective methods c) To provide information, education campaign	Hospital-based Family Planning Clinic
2. To reduce incidence of malnutrition 3. To rehabilitate 2nd and 3rd degree under nourished children	Intensify case finding	a) Operate Timbang b) Encourage food production c) Provision of locally available low cost nutritious diet, strengthening of mothercraft activities d) Ties	Barangay Health Center Nutrition and Rehabilitation Ward of the Hospital
4. To reduce morbidity & mortality rate caused by communicable diseases by providing the appropriate facilities and services	Dissemination of health and environmental sanitation programs to the community	a) Continue upgrading the technical skills of the medical and nursing personnel b) Intensify the health education campaign into a 5-impact program c) Intensify EPI d) Conduct Barangay Clinics e) Construction of additional ward	Barangay Clinics Hospital Ward

Source: The Five-year Development Plan of G2

TABLE 3.2
INTERNAL CRITICAL SUCCESS FACTORS OF THE OPERATIONAL GOALS
G2 HOSPITAL

GOALS	High Quality Patient Care	Cost Containment	Good Community Relationships	Recruitment and Retention of Professional Staff	Planning for Expansion/ Improvement/ Repair of hospital facilities	Share services with other Hospitals
1. Quality of the training of the staff	X		X			X
2. Quality of equipment used	X	X				X
3. Attitude of personnel	X		X			
4. Maximum utilization of available resources		X				
5. Availability of Medicines and supplies	X					X
6. Proper Selection of new personnel				X		
7. Relationship among personnel	X		X			

TABLE 3.3
INTERNAL CRITICAL SUCCESS FACTORS OF THE OPERATIONAL GOALS
G2 HOSPITAL

GOALS	High Quality Patient Care	Cost Containment	Good Community Relationships	Recruitment and Retention of Professional Staff	Planning for Expansion/Improvement/Repair of hospital facilities	Share services with other Hospitals
External Critical Success Factors						
1. Power supply problems	X					
2. Interventions of Politicians			X	X		
3. Attitude of Patients	X		X			
4. Referrals to and from other hospitals						X
5. Budget releases	X				X	
Medicines and supplies	X	X				X

reinforce the staff's awareness of the goals. Instead, there are informal discussions among the doctors and nurses, usually during rounds, regarding patients and their corresponding prescribed medication.

The information obtained from both the literature review and the case studies point out that as organizations, Philippine hospitals, both government and private, small and large, have well defined goals. These are communicated to the employees of these organizations through both formal and informal ways.

It may be noted that both government hospitals covered in the case studies have set their respective goals beyond the curative and rehabilitative functions of a hospital. They have explicitly included the preventive functions in their goals. P3 Hospital, on the other hand, which is a religious hospital, sets its goals in conformity with the non-profit nature of its ownership. P2 Hospital goals are long-term profit oriented.

3.2 Decision Making Processes to Establish A Hospital

An important consideration in the decision to establish a hospital, whether public or private, is the social and financial viability of the project. A government hospital should be socially justified to warrant the current and future allocation of public funds for the continued operation of the hospital. A private hospital, on the other hand, should be able to generate sufficient cash flow to meet its financial obligations to employees, suppliers and other creditors, as well as a satisfactory return to its owners. Previous studies and observations, however, have shown that some hospitals have been established without the benefit of a preliminary test to determine whether the project meets the financial or social criteria for their establishment.

Private Hospitals

Private hospitals are usually established out of the interest of private individuals to involve themselves in the hospital business. There are usually two kinds: those which involve stockholders and those without stockholders such as those established by religious organizations.

It has been pointed out above that the non-stock hospitals are established for humanitarian reasons or as part of the religious organization's mission. Sometimes they are established with medical or paramedical schools.

Bengzon (1972) notes that all six stock and non-stock hospitals included in his study were established without the benefit of feasibility studies.

The typical flow of events described in Bengzon (1972 p. 25) in the establishment of these hospitals is that :

"a group of doctors, associated in a loose arrangement of practicing near one another or bound together by friendship, school ties, and similar bonds, decide that they want to put up a hospital. Articles of incorporation are drawn up. Investors are sought to provide

capitalization which is usually geared to the cost of the building and equipment. These investors are usually other doctors and relatives. If the amount is insufficient, as it usually is, then loans are pursued. Some studies are made, varying in degrees of superficiality. For example, the incorporators of Hospital B (in Bengzon's study) were in fact only looking for office spaces and were subsequently convinced to use as a hospital a building that was already being constructed for offices. Their feasibility study consisted of a report made by the former chief accountant of another hospital who predicted that they would be in the red for the first two to three years of operation. After plunging into the venture, almost blindly, they surprised everyone, especially themselves, by being always in the black."

Another hospital described in Bengzon (1972) only had a set of calculations of income based on varying degrees of occupancy and another set of calculations regarding salaries. This eventually led to unanticipated financial problems.

This lack of reliance on standard business management tools such as feasibility studies came about out of the prevailing attitude and belief that there is a shortage of hospital beds in the Greater Manila area and even nationwide and therefore only good occupancy is all it takes to operate a hospital successfully (Bengzon 1972).

With the rapidly growing awareness of potential hospital owners of the benefits of feasibility studies, however, we may expect that these tools will be used widely in the industry.

Government Hospitals

The establishment of a government hospital is usually begun through the legislative process. However, due to the possibility of a proliferation of hospitals which may be difficult to maintain, the DOH has adopted a National Hospital Development Plan which will guide the development of the government hospital sector.

The general lack of systematic analysis of the financial, social, and political viability of government and private hospitals established in the past has led to a large number of failing hospitals and hospital closures that we see today. The current awareness of new hospital owners of the benefits of feasibility studies, especially in the light of the competitive forces surrounding many hospitals, should reduce the number of hospital failures in the future. While private hospitals will proliferate in areas which exhibit financial viability, government should look into providing hospital services where there is a social need but where financial attractiveness is lacking.

3.3 Key Hospital Actors

The hospital is considered to be one of the most complex organizations (Rakich and Dart, 1983, pp. 17-18) because of the following reasons:

- (1) the wide diversity of objectives and goals (as mentioned in the preceding section);

- (2) the diversity of personnel (from highly skilled and educated administrators and physicians to unskilled and uneducated employees);
- (3) their continuous operation (requires high costs and causes personnel and scheduling problems);
- (4) the dual lines of authority in many areas of hospital operations (as will be discussed later);
- (5) the problems of life and death (which put psychological and physical stress on the personnel); and
- (6) the problem in measuring the major product (also cited in preceding section) (Wolper and Pena, 1987, p.25).

The management of a hospital resides in a team of three players: the governing board, the medical staff and the hospital administrator. It is called the triad by Rakich and Darr (1983, p.25). This arrangement permits a sharing of power among the three participants, but it can best be characterized as an accommodation. The triad results from the independent contractor status of staff physicians, who care for their patients in the hospital, and the need for governing authorities to delegate responsibility for day-to-day operation of the facility to an administrator.

The Governing Board

The Governing Board, as quoted by Schulz and Johnson (1983, p.61) from the American Hospital Association (1982), "has the ultimate authority and responsibility for patient care and overall quality of service in the hospital." Also known as Board of Directors or Board of Trustees, it has three primary functions:

- (1) it has formal and legal responsibility for controlling and maintaining organizational effectiveness;
- (2) it helps to gain support for the hospital from its environment; and
- (3) it represents and should be accountable to the region and/or subgroups from its environment.

Schulz and Johnson (1983, p. 62) lists the functions of governing boards as summarized by Hickey (1972):

- 1) establish institutional objectives
- 2) organize the board of directors to perform the work of the board
- 3) review and approve major plans and programs
- 4) review and approve major institutional policies
- 5) select, appoint, and evaluate the chief executive officer
- 6) maintain qualified medical staff
- 7) perform an advisory role to operating management
- 8) review and approve major institutional decisions
- 9) evaluate institutional performance
- 10) trusteeship

The study of Gilmore and Wheeler (1972), of the governing board members of 632 American governmental, not-for-profit, and proprietary (for-profit) hospitals in 1971 shows that 36.1 percent were executives, managers, white-collar supervisors; 18.4 percent were proprietors, self-employed; 13.6 percent were from other professional groups (other than medical - 2.3 percent were blue-collar workers and 0.9 percent were minority group representatives). A later study by Nigosian (1980) suggests little change. Schulz and Johnson (1983, p.65), thus conclude that this "tends to support the criticism that hospital boards represent the community establishment rather than the consumers whom hospitals serve."

Data from Gilmore and Wheeler further add that 37.1 percent of board members were board elected, 27.5 percent were corporate elected, 25.0 percent were appointed, 12.0 percent were elected by other groups, and 2.4 percent were others.

Schulz and Johnson (1983, pp. 68-69) state that typically, the medical affairs are delegated to the medical staff. A joint conference committee with representatives from both groups serves as a liaison between them. The board members generally meet monthly; some meet quarterly. They are usually organized into committees (e.g., finance, endowment, personnel, planning, building).

In the Philippines the government hospitals consider the DOH as their governing body, while private hospitals have their own governing boards. Those affiliated with religious organizations usually have members of the religious order as members of the board. Alcaraz (1991), for example, reports that in a university hospital owned by the Dominican community, the governing board consisted of the Father Rector, Vice Rector, University Treasurer, Dominican representative, a community representative appointed by the rector, the Dean of the Faculty of Medicine and Surgery, the hospital administrator, and the medical director.

Alcaraz (1991) further describes the composition of the board of a medical center as consisting of physicians, and representatives of large private and government corporations. Bengzon (1972) makes the same observation about the domination by physicians of hospital boards, representing their predominance in ownership.

Medical Staff

The medical staff's role in the hospital is so important that Schulz and Johnson (1983, p.81) writes: "There is no single force more crucial in the management of hospitals than the medical staff. On the one hand, doctors are considered to be guests in the hospital; on the other, physicians consider the hospital to be their workshop - an instrument designed to serve their patients."

The medical staff organization includes an executive committee which acts on behalf of the medical staff and coordinates the activities and general policies of the different clinical departments and services. There are other committees, just like the governing board, such as the credentials, tissue, and inspection committees. The credentials committee takes charge of the

selection of medical staff based on the recommendation of departments. The medical staff can either be an active staff, associate, courtesy, consulting or honorary staff.

Conflicts may occur between the medical staff and management due to the differences in their respective orientations. Schulz and Johnson describe these differences:

- 1) Physicians' authority and power are based on technical expertise while the managers' power arises from their position in the organization and on their managerial style and expertise.
- 2) Distribution of authority within the medical staff is diffuse based on their specialized expertise while the management authority is hierarchically structured.
- 3) Physicians' orientation tends to be cosmopolitan (i.e., external to the hospital) and directed towards professional specialties and individual patients while the managers tend to be local - toward the institution.
- 4) Physicians' goals are directed toward the treatment of patients while managers strive for organizational maintenance.
- 5) Physicians tend to be collegial and informal in their organizational relationships while administrators tend to be more formal.
- 6) Physicians' work is more intensive, on a one-to-one basis, and decisions are authoritarian, independent, and based more on objective data while managers work with groups, are more dependent on others, and decisions are often negotiated, frequently involving compromise and based on subjective information.

In a case study, Aldea, et.al. (1987) narrate the conflict between the medical director and hospital administrator of a private hospital. They point out the management principles crucial to harmonious relationships in the hospital so that organizational goals and objectives would be attained effectively and efficiently.

The Hospital Administrator

An administrator assumes a variety of functions and roles. Schulz and Johnson (1983, pp. 157-167) differentiate the four role models.

- 1) business manager
- 2) coordinator
- 3) corporate chief
- 4) management team leader

They suggest that managers of the last type could run the hospitals better. They are characterized as being participative and proactive.

As far as goals of administrators are concerned an investigation by Johnson, Forest and Mosher in 1977 cited by Schulz and Johnson (1983, p.174) reveals that 755 American administrators surveyed rated the following goals, from highest to decreasing order: high quality patient care, cost containment, good community relationships, recruitment and retention of professional staff. Rated low were: planning for expansion of hospital facilities, teaching, share services with other hospitals, and research. In the same study: determination of goals and objectives, financial management, coordinating department operations, planning, and personnel management were the managerial activities which were rated important. Health industry activities and educational development were rated low. The following managerial role descriptions were rated high: the entrepreneur, the leader, the monitor, and the resource allocator. Rated low were: disturbance handler, the disseminator, and the figurehead. The descriptions were based on Mintzerg's (1973) managerial roles.

Green (1983, pp.57-83) describes the different work groups in the hospitals: (1) the medical profession, and (2) the paramedical group (e.g., nursing staff, physiotherapists, service staff). He also mentions, as a last group, the patients who he considers to be the most important group in the hospital. He believes that a hospital "would be finished as an organization" if there were no patients since "they are the source of everybody else's work". He concludes that because of these various groups, there is a need for control and coordination in hospitals.

Bengzon (1972, p.28-37) notes that there are four levels in the hierarchy of the six hospitals he studied: (1) the ownership represented by the Board; (2) general managerial responsibility, represented by a principal officer such as a president, or a principal office such as an executive committee of the board; (3) operational managerial responsibility, represented by a medical director and by the hospital administrative or business manager supervising the medical/professional aspects and administrative/business/other non-medical aspects, respectively; and (4) departmental or sectional responsibility, represented by various department and section heads who carry out the day-to-day operations. Bengzon also emphasizes the necessity of a continuing coordination between the different units especially among the medical director and hospital administrator. He summarizes the attributes, responsibilities, power, compensation, recruitment and development of key positions in selected private general hospitals in Metro Manila in Table 3.4.

3.4 Planning Processes

Among the four hospitals covered in the case studies a variety of planning processes, from very serious to none, were observed. The following are brief descriptions of these planning processes.

A. Government Tertiary Hospital (G3)

The chief of hospital of G3 Hospital has expressed frustration in that almost always, the plans that have been drawn by the hospital are not carried out. He has lost track of the plans since there have already been many plans prepared. During the interview, he shrugged this off by

**ATTRIBUTES, RESPONSIBILITIES, POWERS AND OTHER CHARACTERISTICS
OF KEY POSITIONS IN SELECTED PRIVATE GENERAL HOSPITALS
IN THE GREATER MANILA AREA, 1971**

TABLE 3.4

<i>Position</i>	<i>Essential Attributes</i>	<i>Responsibilities</i>	<i>Power</i>	<i>Compensation</i>	<i>Recruitment and Development</i>
1. Board of Directors	<ul style="list-style-type: none"> o Owner of substantial number of shares, or an analogous position; o And/or managerial expertise/prestige 	<ul style="list-style-type: none"> o Objectives o Policies o Planning o Review 	<ul style="list-style-type: none"> o Power of ownership / Stewardship 	<ul style="list-style-type: none"> o Nil to nominal 	<ul style="list-style-type: none"> o Not formalized
2. Principal Officer e.g. President	<ul style="list-style-type: none"> o Owner of substantial number of shares, or an analogous position; o And/or managerial expertise/prestige o Usually in M.D. with significant professional prestige and practice 	<ul style="list-style-type: none"> o Implementation o Supervision o Control o Planning 	<ul style="list-style-type: none"> o Power of ownership/ stewardship and/ or general managership 	<ul style="list-style-type: none"> o If M.D., nominal; If Professional administrator, P1,500 to P3,500 	<ul style="list-style-type: none"> o If M.D., not formalized, if professional administrator, business or administrative background
3. Medical Director	<ul style="list-style-type: none"> o An M.D. with significant ownership/ or professional prestige and wide practice 	<ul style="list-style-type: none"> o Liason to Medical Staff; significant influence over professional aspect o Administrative Influence over staff largely through moral suasion 	<ul style="list-style-type: none"> o Depends on relationship with higher ups but generally significant 	<ul style="list-style-type: none"> o Nil to nominal 	<ul style="list-style-type: none"> o Not formalized
4. Hospital Administrator or Business Manager	<ul style="list-style-type: none"> o A professional manager by training and/or exposure o Usually a non owner 	<ul style="list-style-type: none"> o Implementation, supervision, and control of operations in their non-medical aspects 	<ul style="list-style-type: none"> o In effect runs hospital from day to day o Depends heavily on relationship with higher ups and medical director 	<ul style="list-style-type: none"> o P1,500 to P3,600 	<ul style="list-style-type: none"> o Business Administration or similar background
5. Regular or Consultant Medical Staff	<ul style="list-style-type: none"> o M.D. or Stockholders 	<ul style="list-style-type: none"> o Sales force 	<ul style="list-style-type: none"> o Significant, especially if united, to affect income, planning and policy 	<ul style="list-style-type: none"> o None 	<ul style="list-style-type: none"> o None
6. Department or Section Heads	<ul style="list-style-type: none"> o Employees with limited supervisory capacity 	<ul style="list-style-type: none"> o Day to day implementation and supervision 	<ul style="list-style-type: none"> o None, except in influencing rank and file 	<ul style="list-style-type: none"> o Conventional 	<ul style="list-style-type: none"> o Varied

saying "Anyway, all these plans are not being pushed through or realized especially in the non-infrastructure developments." Plans are always readjusted since the operations of the hospital depend on its budgetary allocation.

The latest development plan was formulated as an update of the previous development plan. The old plan was reviewed and other necessary features were added particularly in the physical development and in the training aspects.

Capital and equipment acquisitions were always made within the framework of the development plan. Adjustments were made, however, when there were priorities and pressing needs.

The hospital staff complain that while the hospital managers formulate development plans, many of them are not fully aware of the details of the plans. They say, "perhaps only top management is kept abreast of these details. However, during the time of the previous chief of hospital, proper orientation mechanisms regarding development plans were made from the top to the rank and file. Presently, no such mechanism exists." On the other hand, the chief of hospital also complains that some of the staff do not attend meetings and do not give importance to meetings for the ventilation of their problems.

B. Private Tertiary Hospital (P3)

P3 Hospital undertakes a very serious planning process. The technical and administrative staff are involved. Equipment acquisition and other decisions are based on these plans.

C. Government Secondary Hospital (G2)

G2 Hospital formulates plans based on the stated objectives of the DOH. Planning documents indicate that DOH procedures for the planning exercise are carefully followed.

9. D. Private Secondary Hospital (P2)

According to the proprietors of P2 Hospital they have a definite plan in their minds which will bring the hospital to a tertiary level of care in the near future. They have focused on the acquisition of needed equipment to meet the tertiary level requirements. Specialist consultants are asked to provide advice regarding equipment acquisitions.

Observations of the case study hospitals indicate high frustration levels on the part of government hospital managers when it comes to serious planning. This is due to their lack of control of the implementation variables, especially on funding. This has led to planning exercises which are done essentially for compliance purposes rather than as a management tool.

Private hospital managers, on the other hand, with greater control on the implementation of their plans, approach the planning exercise seriously.

3.5 Interactions Among Key Hospital Actors and Decision Making Processes in Philippine Hospitals

Studies of students at the University of the Philippines College of Public Health of nine (9) hospitals have identified the key actors in some government and private hospitals, their respective roles and some interactions among each other in the decision-making processes regarding capital expenditure, budgets, personnel, and fees. As the discussion below shows, different practices in relation to making different decisions exist in different hospitals.

3.5.1 Capital Expenditure Decisions

Below are the key actors or decision-makers on hospital capital expenditures in some government and private hospitals:

1. Quezon City General Hospital (Lantin & Palma-Fernandez, 1982)	QCGH Hospital Director
2. Southern Islands Hospital (Dakay & Cam, 1982)	SIH Chief of Hospital
3. Albay Provincial Hospital (Kilayko & Quintana, 1982)	APH Hospital Director (Chief of Hospital)
4. Regional Hospital Camarines Sur (Panikulam & Patron, 1982)	RHCS Chief of Hospital
5. Cebu City Medical Center (Tagabueba & Pastor, 1982)	CCMC Governing Board/ Chief Executive Officer
6. Manila Doctors' Hospital (Sulek & Cuevas, 1982)	MDH Hospital Administrator
7. Capitol Medical Center (Rivero & Ordon, 1982)	CMC Assistant Director for Finance
8. Our Lady of Lourdes Hospital (Cruz & Tanalgo, 1982)	OLLH Hospital Administ- rator/ Business officer
9. Mary Johnston Hospital (Sumarya & Gonzales, 1982)	MJH Hospital Administrator

In the government hospitals (numbers 1 through 5), the Chief of Hospital, who is a medical doctor, is the major decision-maker and overseer of all hospital activities. As far as capital expenditure is concerned, he is in-charge of controlling costs together with the different department heads, approving substantial purchases together with the administrative services (as in the case of APH) and approving assistance to indigent cases with the Medical Social Unit (as in the case of SIH). Proper coordination is also made by the Chief of Hospital with the various offices of the DOH, medical staff and committees of the hospital (as in RHCS). In the QCGH, it is the Hospital Director who identifies the needs and achievable resources and formulates hospital infrastructure programs by directly supervising the assistant directors, planning officer,

and engineer. The external linkages of the QCGH include the city mayor, media community agencies, civic and other professional agencies.

In the CCMC, the governing board decides on matters regarding dietary and supply expenditures as submitted by the chief dietician and supply officers, respectively, and channeled through the CEO of the hospital.

In private hospitals, the hospital administrator, who is most of the time a non-MD, primarily decides on issues regarding capital expenditures in private hospitals. In the MDH, for example, he covers a wide spectrum of functions: (1) consults with the board of directors, auditors, and attorneys regarding hospital management and expansion matters; (2) authorizes purchases and distribution, contracts, bids, collection procedures, and other business transactions within the limits set by the board; (3) co-signs checks; (4) makes recommendations to the board regarding alterations of equipment, additional facilities and services, new constructions, acquisitions of property, research and development; (5) provides safe administration of funds in trust according to policies set by the board; (6) maintains accurate records of finances and activities including the annual audit; (7) provides for development and long-range plans for administrative management in areas of finances and budget, purchases and supply, personnel, building and grounds. All these functions are done through interactions with the medical director, administrative personnel, and the different department heads. Similarly it is also the hospital administrator who purchases large hospital equipment and other time- and labor-saving devices, as in the case of OLLH. However, it is the business officer who decides on matters regarding the estimation of funds required for capital outlay, proper utilization of funds, major equipment repairs and working capital in the latter hospital.

The CEO frequently interacts with their assistant directors, some of whom play important roles in decision-making. In the CMC, for example, it is the assistant director for finance who plays a central figure particularly in the purchase of expensive equipment and the study of contracts of food and supplies. He also authorizes courtesy discounts to special clients and charity grants to indigents.

In the four case study hospitals the following were observed as the procedures and factors behind their respective capital expenditure decisions.

A. Government Tertiary Hospital (G3)

The chief of hospital is a major decision maker and overseer of all hospital activities. Ideas for major equipment acquisitions and expansions and construction of physical structures normally originate from him. During monthly general meetings, opinions and suggestions regarding these ideas are solicited from the hospital staff. The representative of the Commission on Audit (i.e., the COA external auditor of the hospital) is also consulted regarding government accounting and auditing procedures for capital expenditures. After a series of brainstorming sessions, the final proposal is packaged and sent to the Department of Health (DOH) - Central Office. Another copy is forwarded to the Department of Budget and Management for approval. Once approval has been obtained, the corresponding budgetary allotment for the said project is

made by DOH - Central Office. Notices of bidding are publicly made. The biddings are conducted by the regional DOH personnel.

In cases of expansion and/or construction of physical structures, the hospital must also submit the designs to DOH-Central Office for approval. The Commission on Audit prescribes that the hospital must initially engage the services of government engineers based at the Department of Public Works and Highways provincial field office for the preparation of the design(s). No fee or honorarium is paid. However, if the engineers supervise the construction, 3 percent of the total project cost is awarded to them as service fee or honorarium.

In all the transactions required for every step in the aforementioned process, the chief of hospital, with the assistance of his administrative officer, takes the lead role.

Regarding equipment, the hospital has the staff to operate most of them. However, the EEG (electroencephalogram) machine, a donation from JICA, has not been used because the training of the personnel designated to operate it is not sufficient. Requests for further training have been made but have so far been denied.

A major problem being faced by the hospital, with regard to its equipment, is the breakdown of its ten year old x-ray machine. This has been out of order since November, 1992. An engineer from the DOH-Central made the assessment that the unit's auto transformer, which costs approximately P300,000, needs to be replaced. A new X-ray unit would cost somewhere between P1M to P2 million. Up to the writing of this report no funds were released yet by DOH-Central Office.

The hospital's problem was further aggravated last April 1993 when a prominent family in the community met an accident. Two of the family members, while still in unstable condition, had to be transported in an ambulance to a private hospital for an x-ray examination. The public and the media criticized the hospital for its lack of vital facilities which made it unable to respond to emergencies.

B. Private Tertiary Hospital (P3)

P3 Hospital has constantly been upgrading its equipment to accommodate advanced medical cases and to provide the specialists in Metro Cebu with the needed equipment for them to treat their patients. The decision to acquire new equipment is made by the technical and administrative officers of the hospital.

C. Government Secondary Hospital (G2)

G2 Hospital follows the DOH prescribed procedures for the acquisition of equipment and expansion of facilities. The experience, however, is that these are always delayed, even funding for the repair of basic equipment. For example, the hospital's X-ray equipment has been out of order since May, 1992. Repair and replacement of spare parts were estimated to be about

P450,000. Due to budgetary constraints no funds have been released up to the writing of this report. Patients who need X-ray services are referred either to private clinics nearby. For indigent patients, the chief of hospital made arrangements with the commanding officer of a nearby military hospital.

Sometimes the city government extends financial support to alleviate the physical conditions of the hospital. For example, in the middle part of 1991, the city mayor allotted P900,000 M from his discretionary funds for the hospital. Approximately P700,000 M of this was used for the rehabilitation of the malnutrition ward, the under five clinic, and other repairs. The other P200,000 M has been set aside as a "reserve fund" to be used, whenever monthly budget releases are delayed, to cover salaries of employees and expenses for food of patients.

Occasionally, the chief of hospital also seeks the assistance of the city mayor in the acquisition of drugs and medicines. For 1993 alone, the city government has allotted P500,00 M to P600,000 M for this purpose.

D. Private Secondary Hospital (P2)

Although the end users (i.e., resident physician, medical technologist, and nurses) are consulted on the equipment and medical supplies to be purchased, the couple owners of P2 Hospital make the final decisions based, among others, on the financial capabilities of the hospital. Decisions regarding expansion of hospital premises and construction of additional rooms, wards and other structures are made by the husband after discussions with his physician wife. Sometimes, expansion and/or construction is prompted by requests of the hospital clients. For example, the hospital accommodated the requests of clients for private, air conditioned rooms with the construction of two suites and three other air-conditioned private rooms. The dialysis machine has been acquired primarily to service the kidney ailment of the physician wife's brother, while the 200 MA X-ray machine has been acquired to meet the competition posed by another private hospital.

Most of the equipment acquisitions of P2 Hospital were made between 1978 and 1981. Generally, the equipment and facilities are less than 15 years old and are still considered in good working condition.

As of 1992, the hospital had two diagnostic equipment, namely the X-ray machine (30 MA) and the ECG machine. The X-ray machine is operated for eight hours regularly by two part-time staff with a maximum of 26 tests per day. However, the average actual daily tests done, based on the 1992 records, is only eight. The ECG machine, on the other hand, is available 24 hours a day. Operated by one employee, it has a capacity for five tests per day but does an average of only four tests.

It is clear that these machines and the laboratory equipment are underutilized. Despite their underutilization the hospital recently acquired new equipment and other hospital facilities, namely, a dialysis and reverse-Osmosis machine, 200 MA X-Ray, AVR, Booster Pump,

Ultrasound machine, Dual Microscope (electric), Ames-Ra Clinical Analysis and OR 5-lamp light, and added two fully furnished air-conditioned suites, an air-conditioned Special Care Unit and three air-conditioned private rooms to its existing hospital facilities.

So far no tests have been done using the ultrasound unit. On the other hand, the dialysis machine was initially acquired early this year to service the wife's brother, and no one else has used this machine. The hospital's competitor has already acquired for it. The 200 MA X-ray machine which is more technologically advanced than the existing 30 MA machine, produces clearer films. The hospital's competitor has already acquired a similar unit. Thus, to meet the competition P2 Hospital acquired a similar model.

Other capital assets owned by the hospital include a stand-by generator with 10 KVA unit power which is used when Napocor power fails. Its water source is the city's waterworks and rainwater concrete reservoir with 13,000 gallons storage capacity. The hospital has a sewage and a solid waste disposal system but it does not have a pathological waste disposal system.

As can be seen from the previous studies done on capital expenditure decisions in hospitals, different actors play important roles in the decision making processes. In some government hospitals the hospital staff and the chief of hospital have recommendatory roles but final decisions rest on the people who control the funds. This may sometimes result in irrational decisions. Government hospitals, however, may not have a monopoly of irrationality. Although private hospital decisions are generally driven by the competitive environment, capital expenditure decisions are sometimes sheltered from the market when decision biases are made to favor the acquisition of equipment along the lines of the specialty area of the medical director decision maker.

3.5.2 Budget Decisions

Below are the key actors or decision-makers regarding hospital budget in some government and private hospitals:

1. APH - Hospital Director (Chief of Hospital III)
2. RHCS - Business Office (Adm. Officer III)
3. CCMC - City Treasurer's Office

4. MDH - Hospital Administrator
5. CMC - Assistant Director for Finance
6. OLLH - Business Office (Treasurer)
7. MJH - Hospital Administrator

The hospital director of the APH sources additional funds for hospital infrastructure development. He also uses the budget as a guide for its proper administration and in mapping-out strategies of action. In other government hospitals, such as the RHCS, a separate business office handles financial or budgetary affairs. Here, the budget is prepared in accordance with the 5-year development plan of the government and its priorities by following circular procedures and

concepts prescribed by the department of budget. This follows the concept of long-term budgeting and zero-base approach.

In the CCMC, it is the city treasurer's office that manages and controls hospital funds (e.g. salaries, benefits of employees, purchases of materials, equipment and drugs).

In the private hospitals, the hospital administrator again plays a major role regarding budgetary matters. He is in-charge of administering the budget and preparing proposals and their justifications, as in MDH. The hospital administrator of OLLH delegates these and other budgetary responsibilities to the hospital treasurer who heads the business office.

Again, the assistant director of finance of CMC is the central figure as far as preparation of budget is concerned. His other major functions include: (a) the analysis of the following: past year performance, gross reserve for hospital operations, prevailing and perceived needs of the institution, and budget constraints; (b) identification of viable resources and new systems for institutional development; (c) approval and direct disbursement of budget allocation; (d) control of all accounting transactions.

3.5.3 Personnel Decisions

Below are the key actors and decision-makers regarding hospital personnel in some government and private hospitals:

1. QCGH - Hospital Director
2. APH - Hospital Director/Administrative Service
3. RHCS - Business Office (Adm. Officer III)
4. CCMC - Personnel Committee at the City Hall

5. MDH - Hospital Administrator
6. CMC - Personnel Manager
7. OLLH - Personnel Manager
8. MJH - Hospital Administrator/ Personnel Officer

In a government hospital the hospital director interacts with the assistant directors and the supervisors for the proper supervision and motivation of personnel (QCGH). He also interacts with the administrative services for such personnel responsibilities as recruitment, orientation, training, and motivation (APH). In addition, he is also in-charge of controlling personnel costs and of checking personnel performance against standards (APH).

Unlike the former two hospitals described above, the important personnel affairs in the RHCS is handled by the Business Office which is supervised by an administrative officer III. His functions include the recruitment, selection and orientation of new employees (hire and retire

approach). Likewise, he develops welfare programs for the employees and performs standard performance appraisal on them.

Note that in the CCMC, decisions regarding personnel are handled by the personnel committee based at the city hall. The CEO of the hospital, however, has a recommending capacity.

The hospital administrator in the MDH has detailed responsibilities regarding personnel: (a) implements adequate programs in personnel services in cooperation with other health service agencies; (b) determines and assigns areas of responsibility for hospital personnel; (c) selects subordinates and directly supervises areas listed in the organizational chart; (d) provides for a sound and comprehensive personnel program by updating programs as required; (e) coordinates personnel activities by preventing duplications of functions, responsibilities or supervision by requiring adequate and current analysis; (f) requires performance appraisal; (g) provides adequate salary and wage administration program; and (h) enforces selection policies by stimulating and cooperating with the medical staff and department heads for in-service education and development programs.

Similarly the hospital administrator of the MJH is responsible for the personnel cost-containment programs and the final hiring, training and motivating of employees for maximum work performance. He performs these together with the personnel officer of this hospital.

Besides the hospital administrator, the personnel manager/officer has a big role on personnel matters. He monitors problems and adopts suitable solutions to abort feelings of discontent and frustration among employees (CMC). He oversees the recruitment, development, compensation, integration and maintenance of personnel (CMC, OLLH). He also acts as a liaison officer and does public relations work for the hospital such as information talks (CMC). Finally, he advises, assists, aids and facilitates work of line supervisors (OLLH).

The following are observations regarding the staffing and organizational characteristics and personnel decisions in the four case study hospitals.

A. Government Tertiary Hospital (G3)

Internal promotions and external hiring in G3 Hospital are administered by the Selection and Placement Board. For internal promotions, candidates are taken from the rank and file. They must apply for the appropriate positions; however, they are not interviewed by the Selection and Placement Board.

For external hiring, the candidates have to submit a letter of application and are required to take the examinations. They are then called for an interview by the Selection and Placement Board. Each candidate's final ratings and clinical experience records are submitted. Candidates are then chosen based on these documents.

The Selection and Placement Board submits a list of recommendations to the Chief of Hospital who makes the final decision. His decision is supposed to be limited only to the list submitted to him. However, for the position of chief nurse, which had been vacant for two years already, the chief of hospital chose an outsider who was not on the list of recommendees. This led to feelings of resentment among the nursing staff who eventually blocked and protested the decision.

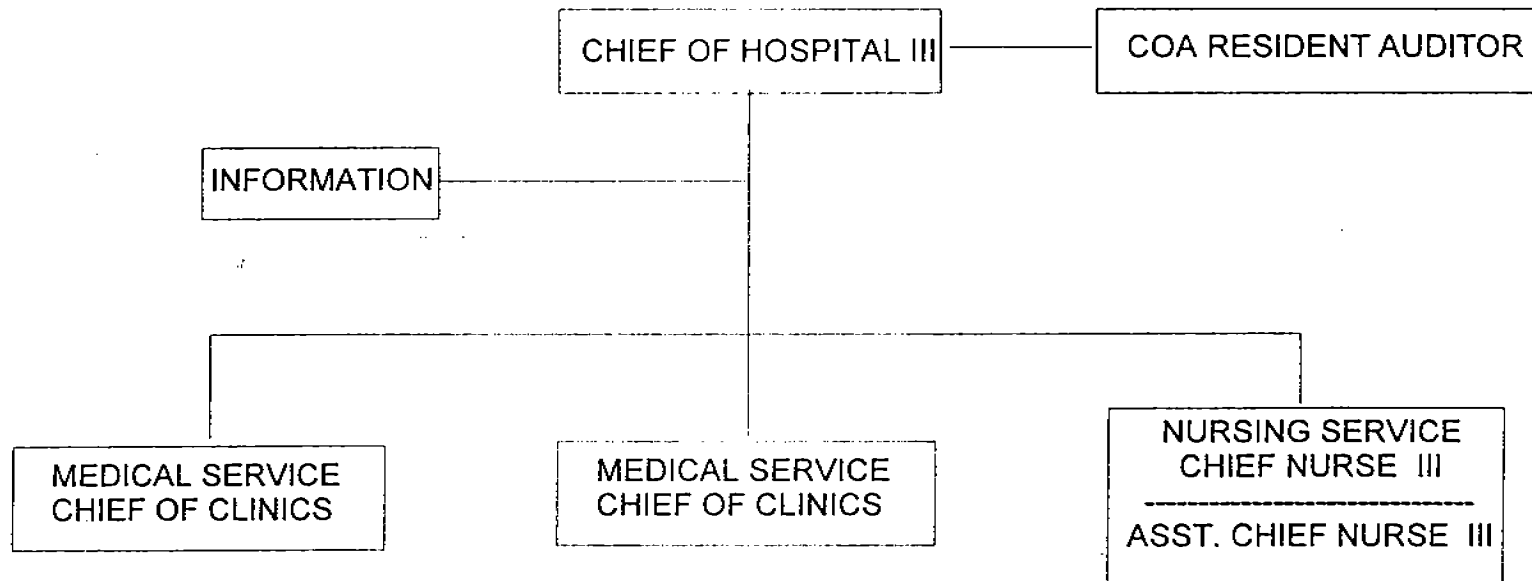
The hospital conducts performance evaluations of all employees once every six months (i.e., every June and every December of each year) based on a directive issued by the Civil Service Office. The evaluation instrument used is the New Performance Appraisal System (NPAS). The hospital staff think that the evaluation process may be made more useful by linking it with motivation factors (such as, higher salaries and more financial benefits). In the absence of this, they feel that it is conducted merely for compliance purposes.

As noted, employee morale in G3 Hospital is low and is further deteriorating. Another reason for this is the slow follow-up of the investigation of their lost payroll for the period May 1-15, 1992. Last May 14, 1992, the cashier of the hospital, who had just withdrawn the payroll money, was held up at the gate of the hospital. Up to the writing of this report, all hospital personnel have not yet been paid their salaries for the said period.

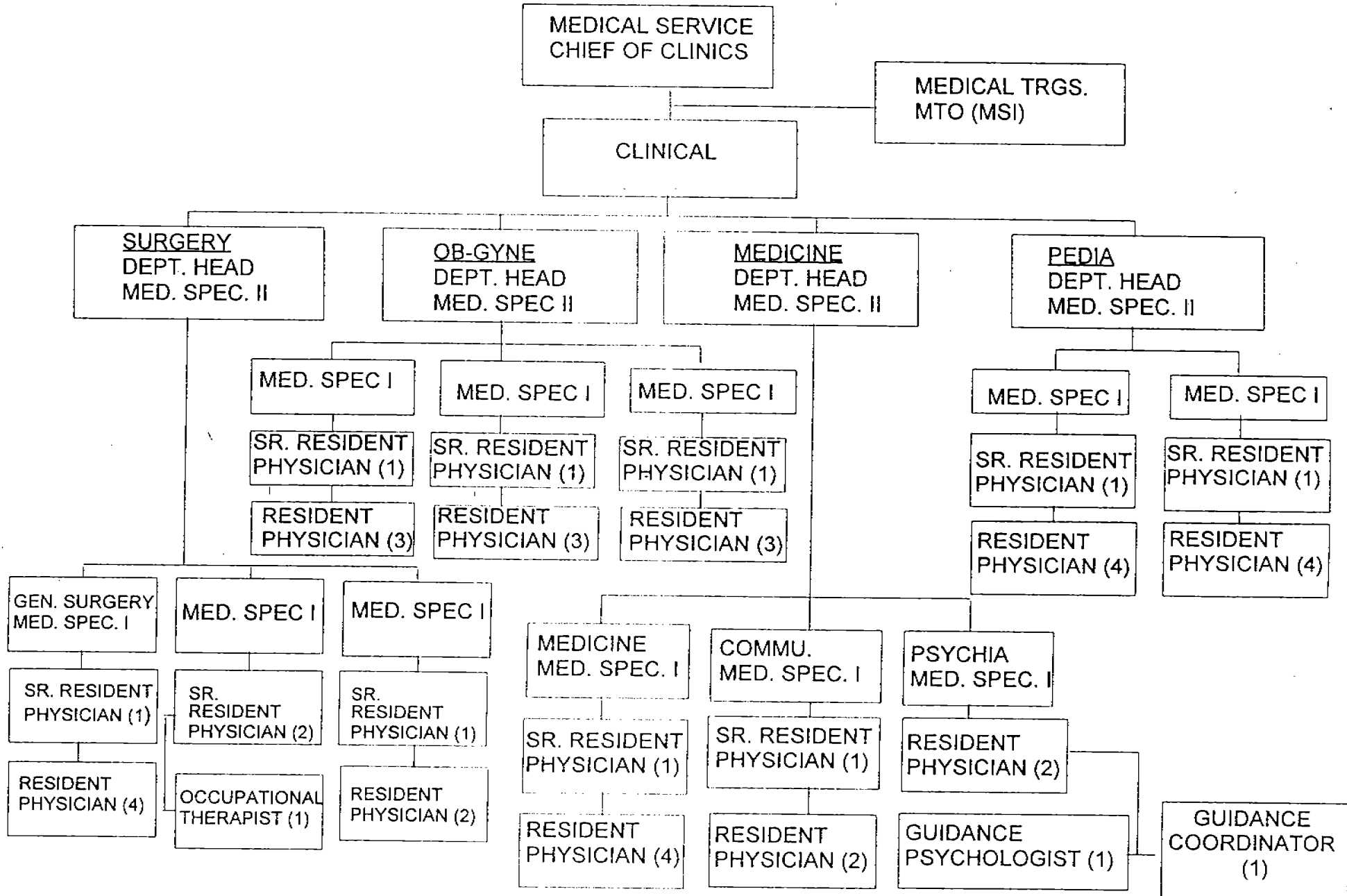
When asked about the low morale of the staff, the chief of hospital says that they think only of themselves and not of the welfare of the patients. Absenteeism is rampant with some of the staff going on leave regardless of the lack of personnel or volume of work to be done.

Figure 3.1 shows the organizational chart of G3 Hospital, while Table 3.5 shows the changes in the personnel complement of the hospital from 1988 to 1992. It may be noted that based on the standard staffing pattern for a tertiary teaching and training hospital established by the Department of Health, the hospital is understaffed as of December, 1992, as shown below:

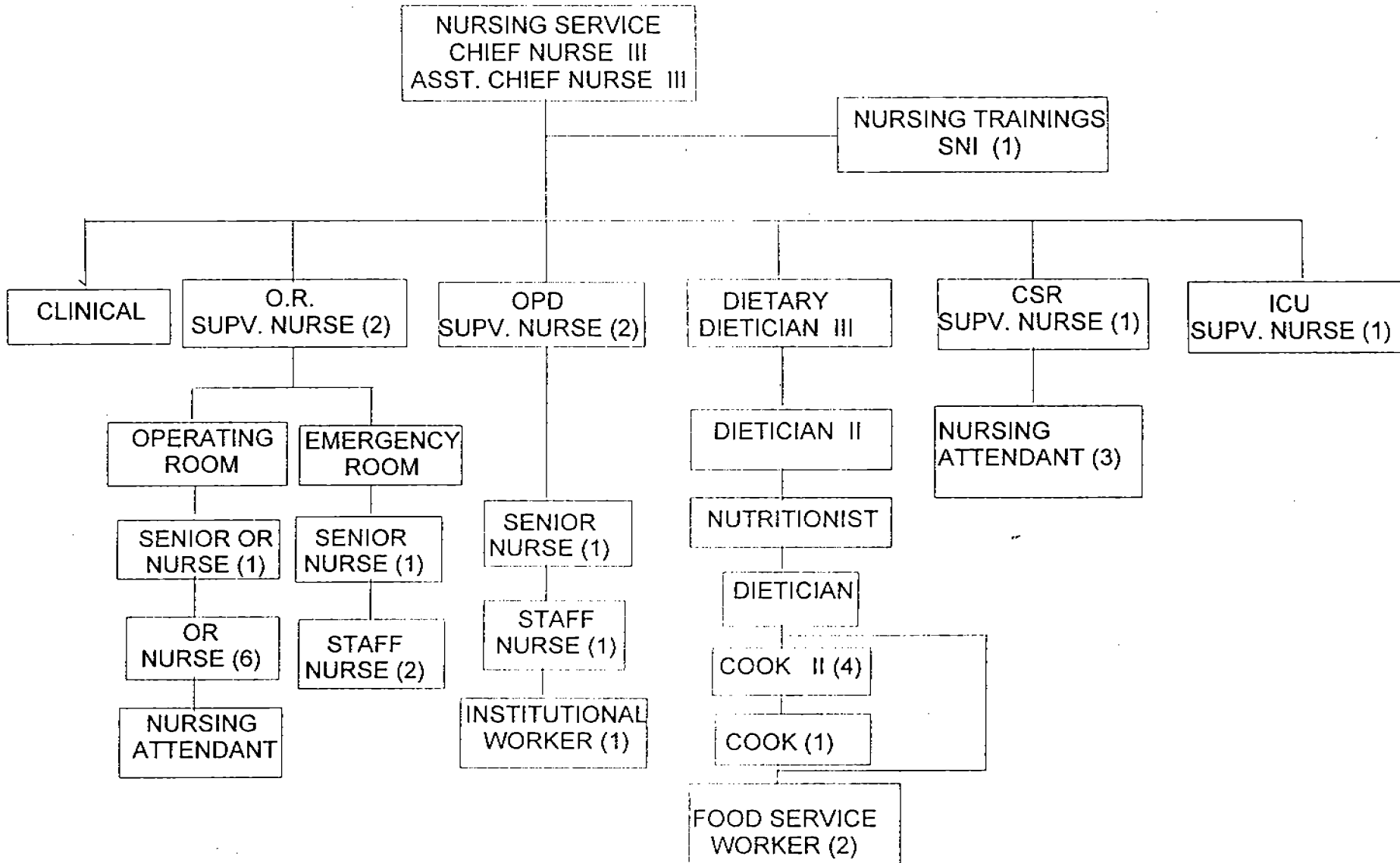
G3 HOSPITAL Organizational Chart 1989 Figure 3.1



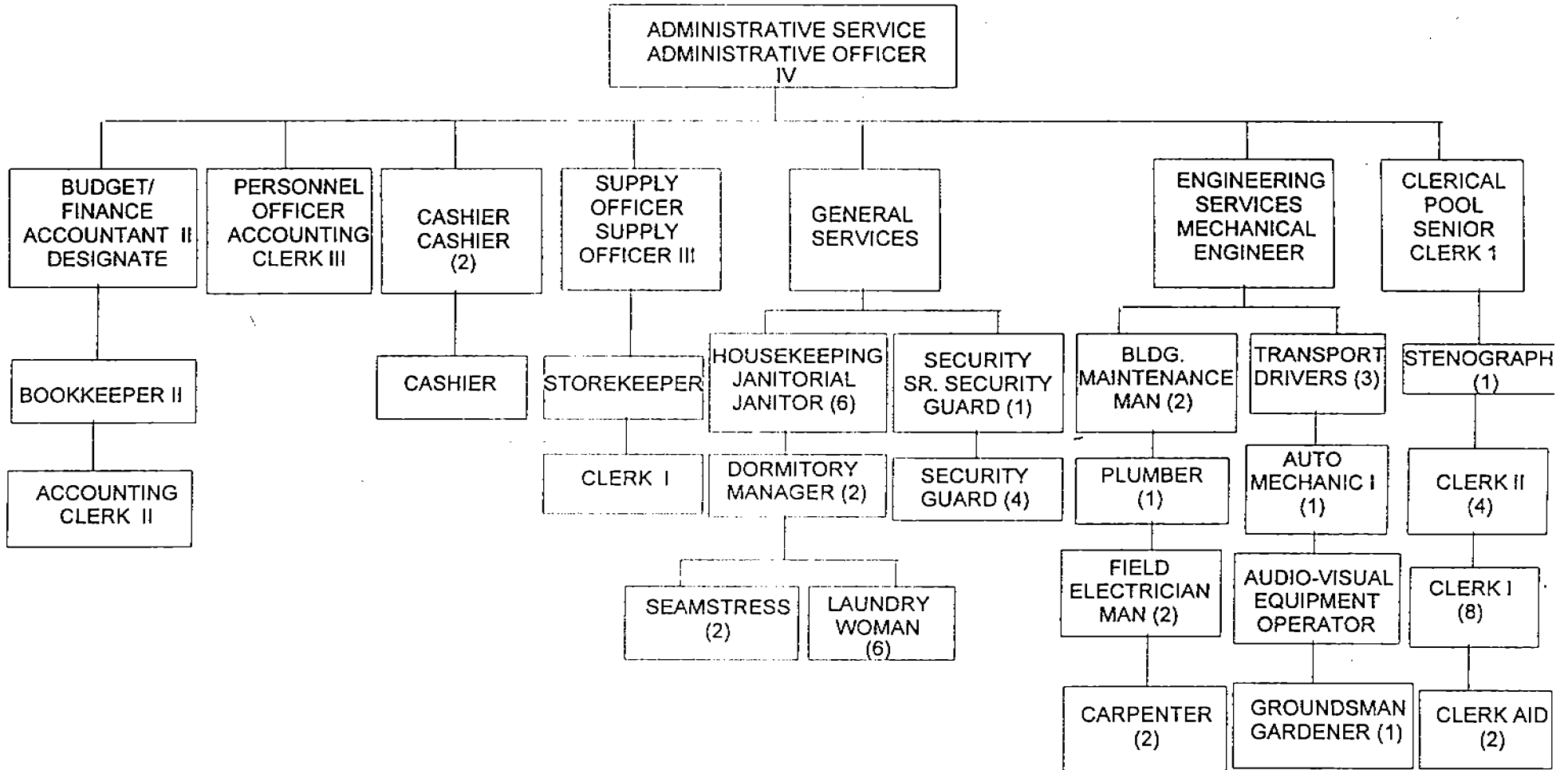
G3 HOSPITAL ORGANIZATIONAL CHART (1989)



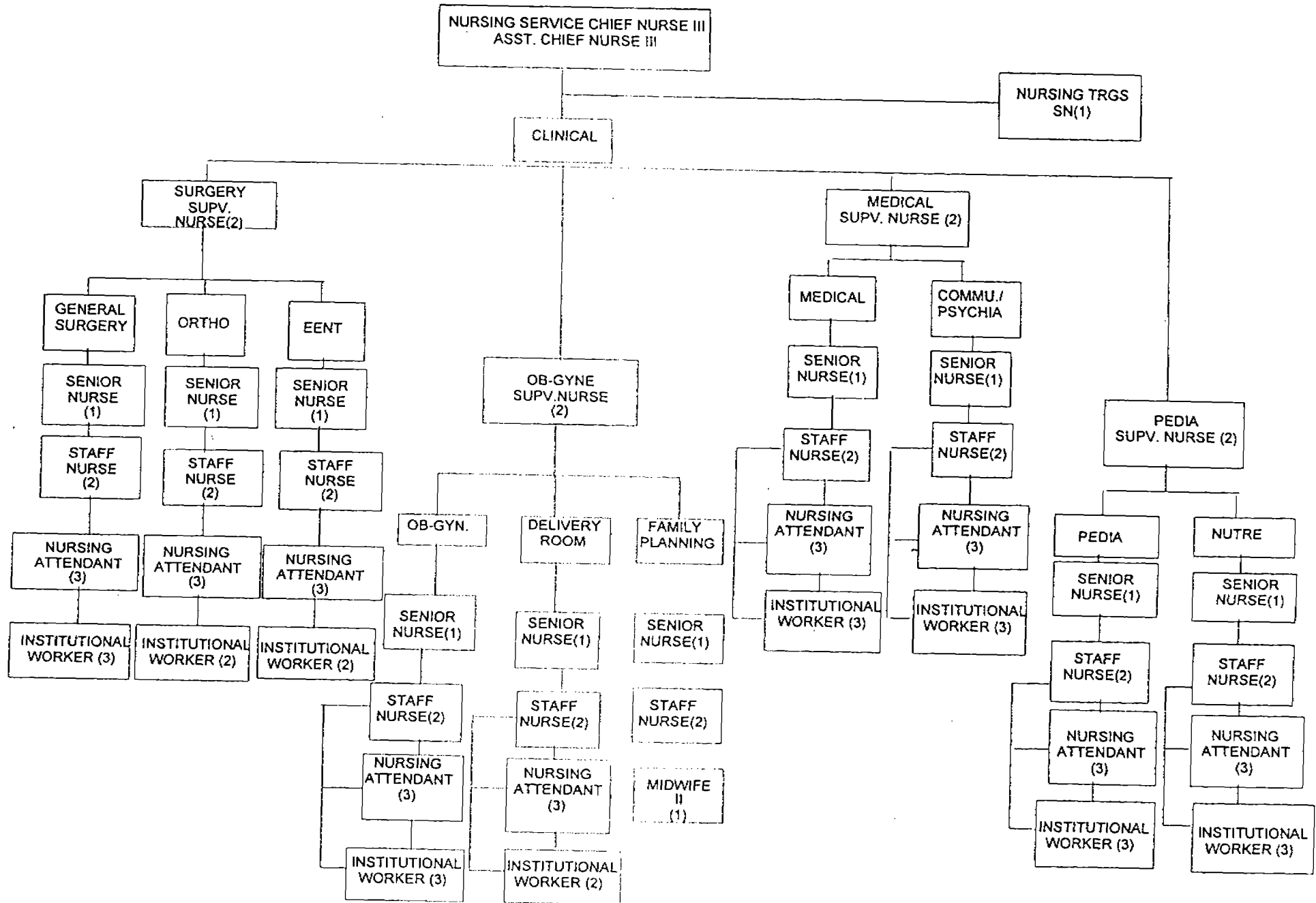
G3 HOSPITAL GANIZATIONAL CHART (1989)



G3 HOSPITAL ORGANIZATIONAL CHART (1989)



**OS HOSPITAL
ORGANIZATIONAL CHART
(1989)**



**G3 HOSPITAL
ORGANIZATIONAL CHART
(1989)**

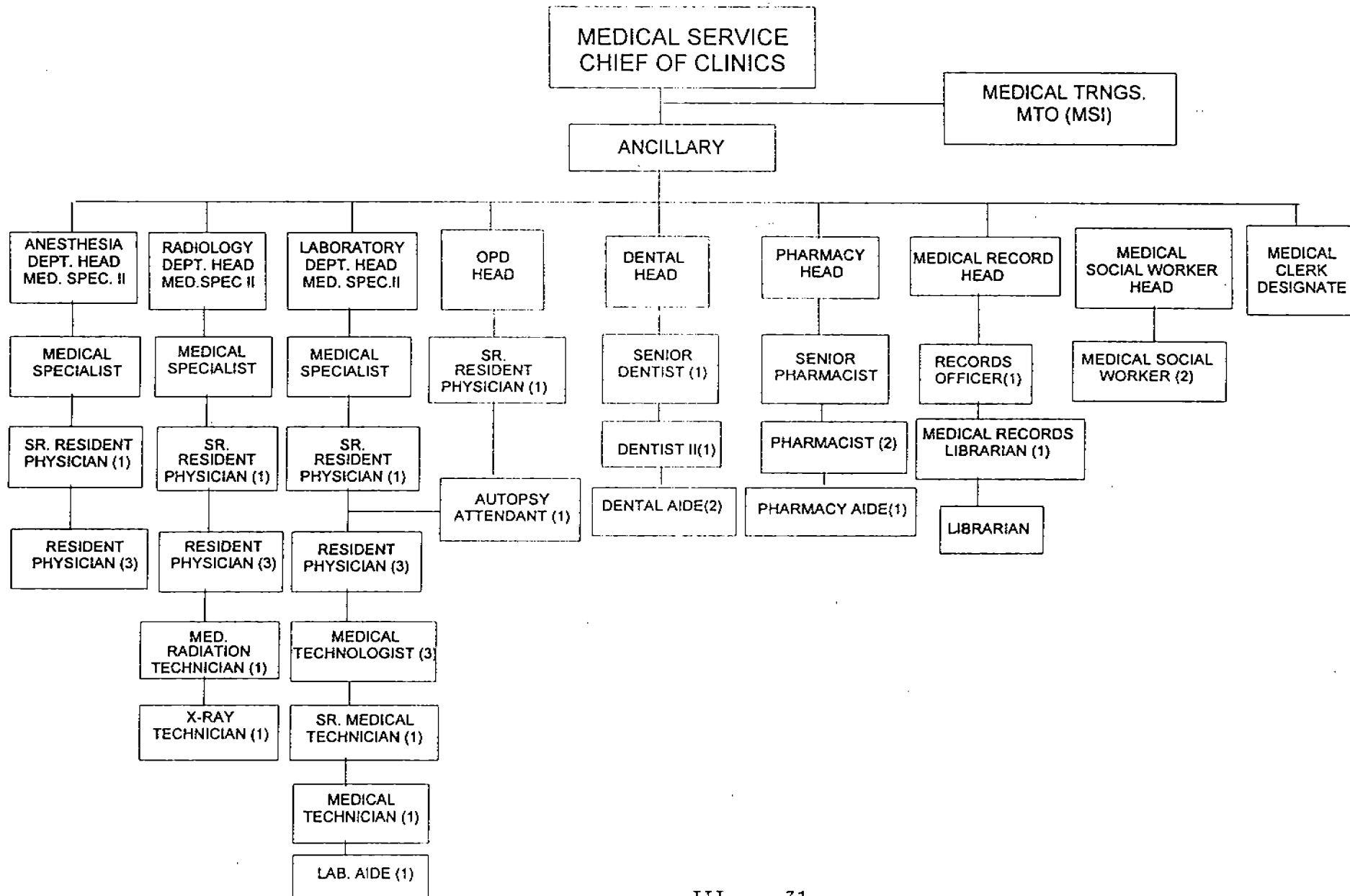


TABLE 3.5
ACTUAL PERSONNEL COMPLEMENT OF G3 HOSPITAL

<u>POSITIONS</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Physicians	79	83	75	76	76
Nurses	76	76	75	67	67
Nursing Aide	29	28	26	27	27
Midwives	1	1	1	1	1
Administrative	26	25	26	24	24
Dentists	2	2	2	2	2
Dental Aides	2	2	2	2	2
Medical Technologists	4	3	3	3	3
Medical Records Officers	4	3	3	3	3
Laboratory Technicians	1	2	2	2	2
Laboratory Aides	1	1	1	2	2
X-ray Technicians	2	3	5	3	3
Pharmacists	3	3	5	3	3
Pharmacy Aide	1	3	3	2	2
Social Worker	2	2	2	2	2
Dieticians inc.l. dietary personnel	21	21	21	20	9
Engineers	11	11	19	9	
Casuals	14	(13)	11	(6)	44
Institutional Workers/Housekeeping Aides	42	44	44	44	4
Others (Specify) Security Force	5	5	5	4	2
TOTAL	326	318	331	296	296

	STANDARD	EXISTING
Physicians	89	76
Nurses	77	67
Nursing Aides	28	27
Midwives	1	1
Administrative	25	24
Dentists	2	2
Dental Aides	2	2
Medical Technologists	3	3
Medical Records Officer	2	3
Laboratory Technicians	2	2
Laboratory Aides	2	2
X-Ray Technicians	3	3
Pharmacists	3	3
Pharmacy Aides	1	
Social Workers	2	2
Dieticians inc. dietary personnel	21	21
Engineers	18	16
Casuals	(3)	(5)
Institutional Workers/Hkg. Aides	41	37
Others:		
Psychologists	2	1
Occupational Therapists	1	1
Dorm Manager	2	2
TOTAL	<u>327</u>	<u>296</u>

While certain positions exist in the plantilla, they have remained vacant due to resignations, expiration of terms, promotions and retirements. As of June 16, 1992, the provisions of the attrition law stipulate that no appointment is to be made to fill vacant positions resulting from the foregoing reasons.

The chief of hospital strongly feels that the attrition law should be repealed. According to him, the hospital needs more human resources, and the attrition law inhibits the filling of the human resources needs of the hospital. Since the hospital deals with life, the requirement to submit a staff reduction of 10 percent a year should not be applicable to G3 Hospital.

While some positions such as that of physicians, nurses, pharmacists, and medical technologists are exempt from the attrition law, the hospital is concerned about the support services which are also important in hospital operations.

Regarding the vacant positions before 1988 which were not filled, the following were some of the reasons given. First, some positions require special skills thereby limiting the pool of qualified applicants. Second, the medical specialist groups are very strict in their requirements, making the need to fill certain medical positions more complicated. Third, the Civil Service requirement to publish a notice about the vacant positions has delayed the hiring process. Fourth, the clearance requirements from the Office of the Ombudsman has further delayed the filling of vacancies.

On the other hand, G3 Hospital is also finding it more difficult to fill up residency positions. This may be due to the decline in the admissions, and correspondingly graduates, of medical schools - a result of recent changes in regulations imposed on medical schools. Also, resident physicians pursue nursing degrees and leave as soon as they complete their education for more lucrative nursing positions overseas.

With regards to training, the hospital staff are sent to conferences, lectures, seminar workshops and other training programs to enhance their knowledge and skills. An interview with some of those who attended these programs indicate that they appreciate these opportunities. Given the limited exposure that their immediate community can offer, these training programs are essential to keep them abreast with recent medical trends.

It may be noted that among the clinical departments of G3 Hospital (and for the entire province) only the radiology and the ob-gyne are accredited. A clinical department of any hospital is said to be duly accredited if at least one of its medical specialists is a fellow. However, with the accreditation of specialists now given to private specialty societies which are very strict (especially for surgery and radiology), the medical specialists of G3 Hospital have found it very hard to become fellows. They find the examinations very difficult. The hospital's medical staff have expressed hopes that perhaps the government could undertake the accreditation soon.

Regarding the issue of doctors engaging in private practice, the chief of hospital admits that he is aware of this, but that he has not investigated the matter. He does not discount the possibility of this considering the low salary government doctors receive. There are also patients who prefer to be treated, on a private basis, by these government doctors who have the expertise.

He personally believes that these government doctors should be allowed to practice in private after office hours. While the government prohibits private practice, there is a provision that allows them to do so, as long as they have the permission of the chief of hospital.

B. Private Tertiary Hospital (P3)

Figure 3.2 shows the organizational chart of P3 Hospital, while Table 3.6 shows its personnel complement. P3 Hospital meets all the required personnel standards for its category.

The organizational chart shows the active participation of the various medical schools in Cebu in the hospital. P3 Hospital draws from these medical schools its manpower resources and in turn educates the medical and allied medical students with its relatively modern facilities.

Morale of the staff of P3 Hospital is high. They seem to be satisfied with their salaries and the treatment that they get from the administration and from their peers.

C. Government Secondary Hospital (G2)

The chief of hospital of G2 Hospital supervises both the medical services as well as the administrative operation activities. (Please see Figure 3.3 Organizational Chart of G2 Hospital and Table 3.7 for the personnel complement).

Hospital services are categorized into two major divisions, namely, professional services and nursing services. Professional services include medical, dental, pharmacy, X-ray, laboratory, medical records, family planning and medical social services. Nursing services, on the other hand, is divided into supervisory nursing and dietary. The former covers nursing and nursing aide services at the operating room and wards, while the latter involves food services preparation and supervision.

The administration section, which provides support services to the medical operations, covers accounting, security, engineering, building maintenance, housekeeping and transportation services.

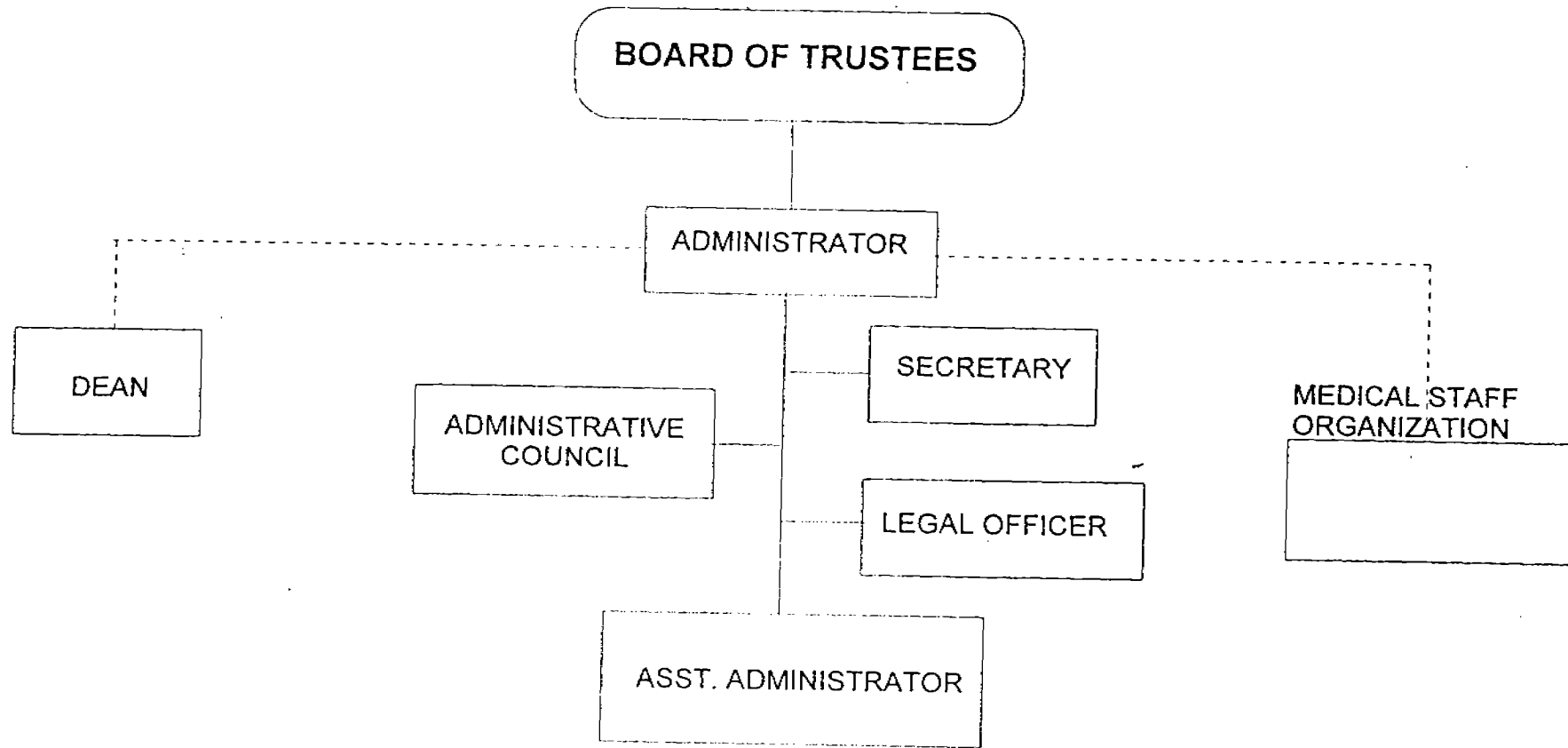
As of December 1992 the hospital is manned by 85 personnel, 58 percent or 49 of them are in medical services while 36 are involved in the administrative operations of the hospital.

The medical personnel is composed of the chief of hospital, medical officers, rural health physicians, nurses, dentists, dental aides, nutritionist-dieticians, pharmacists, medical technologists, social welfare officers, sanitation inspectors, midwives, medical equipment technicians, and nursing attendants. The support services staff, on the other hand, consist of the administrative officer, accountant, cashier, bookkeeper, supply officer, clerks, driver, security guards, cooks, seamstress, laundry workers, mechanic, carpenter, maintenance and utility workers.

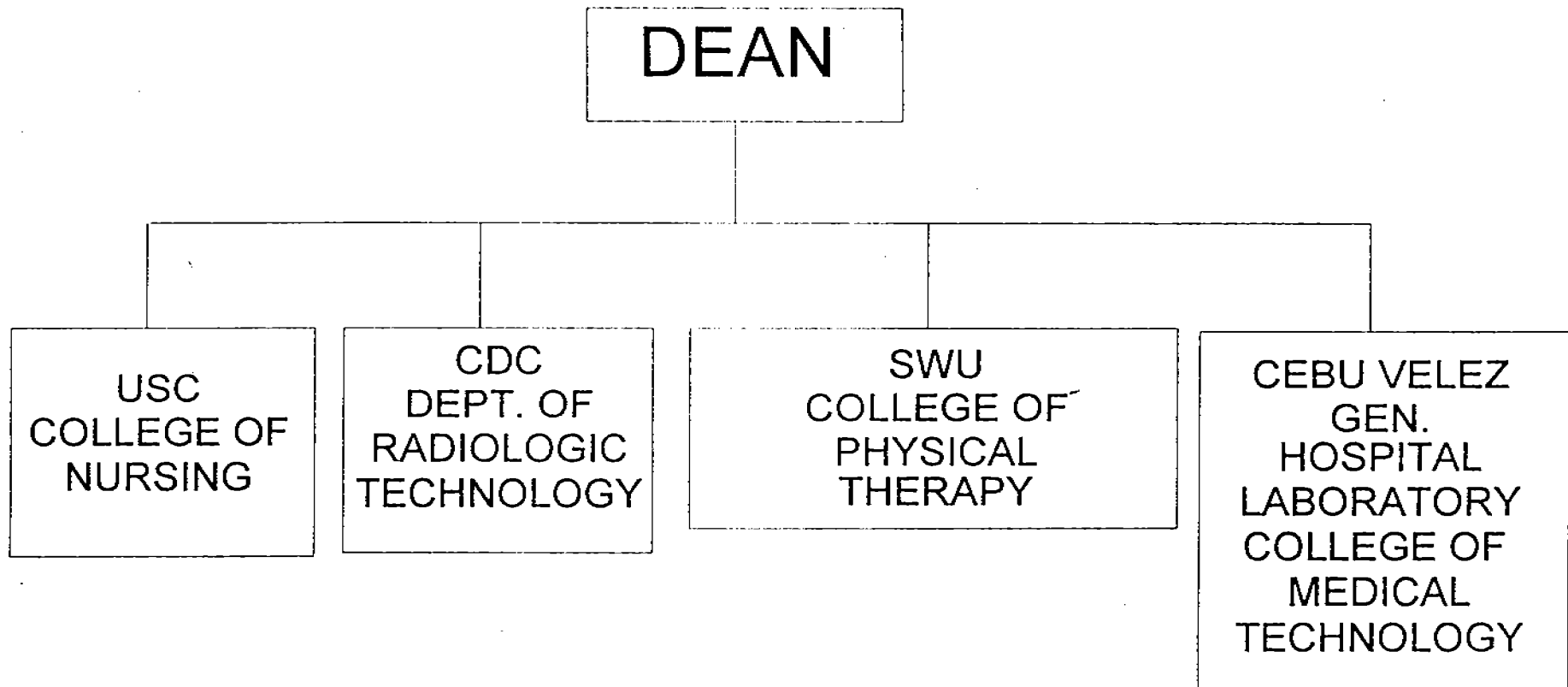
The hiring rates, RATA (representation and transportation allowance), subsistence allowance, laundry allowance, and hiring procedures for personnel and other major policies adopted by the hospital are determined and regulated by the Department of Health. The staff members observe the guidelines, rules and regulations agreed upon by the staff themselves and approved by the Chief of Hospital.

Similar problems as those in G3 Hospital are encountered regarding requests for more qualified personnel provided in the plantilla items. These remain vacant due to the lack of funds.

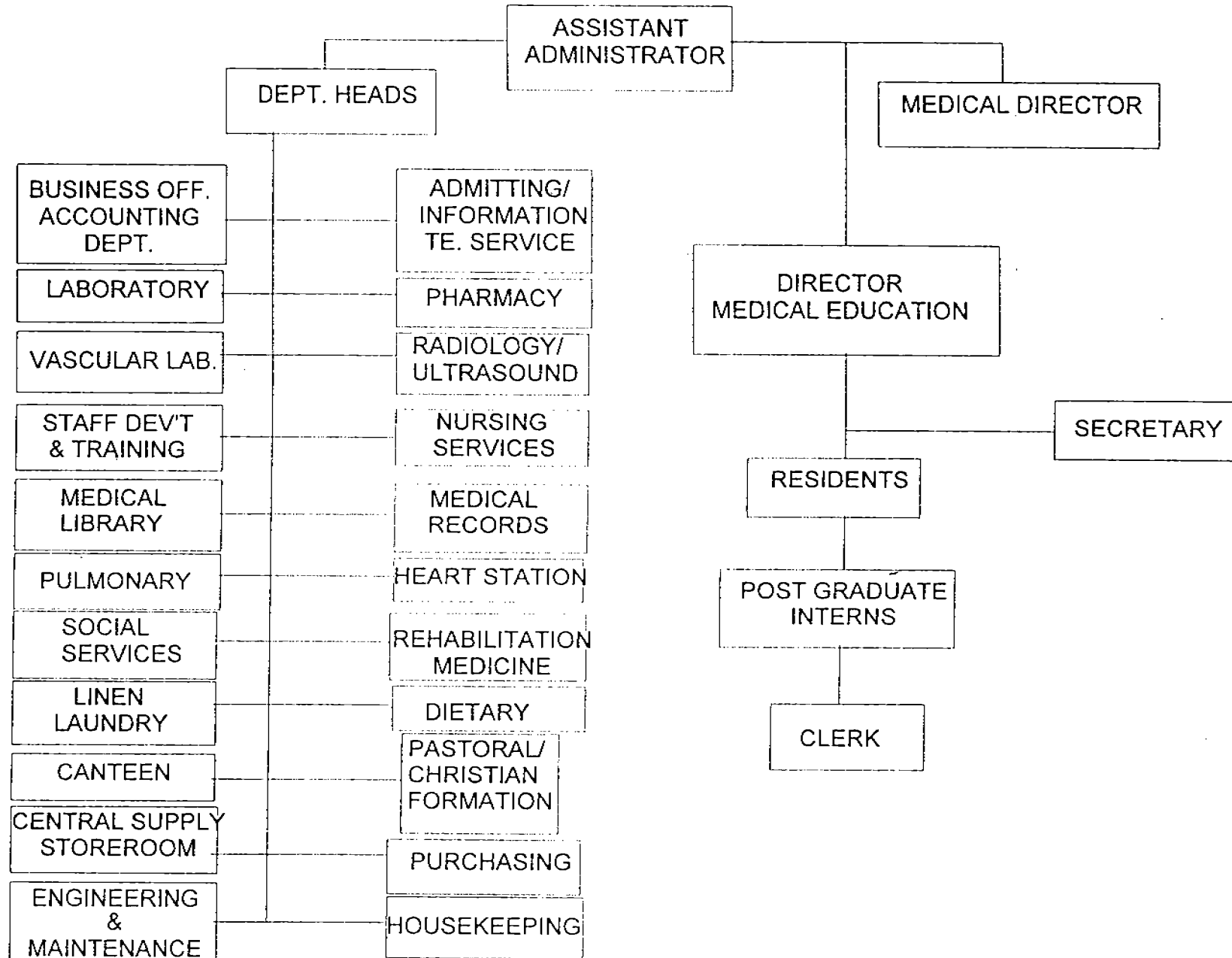
P3 HOSPITAL ORGANIZATIONAL CHART (1989)



P3 HOSPITAL
ORGANIZATIONAL CHART (1989)
FIGURE 3.2



P3 HOSPITAL CHART
ORGANIZATIONAL CHART (1989)



**PS HOSPITAL
ORGANIZATIONAL CHART
(1989)**

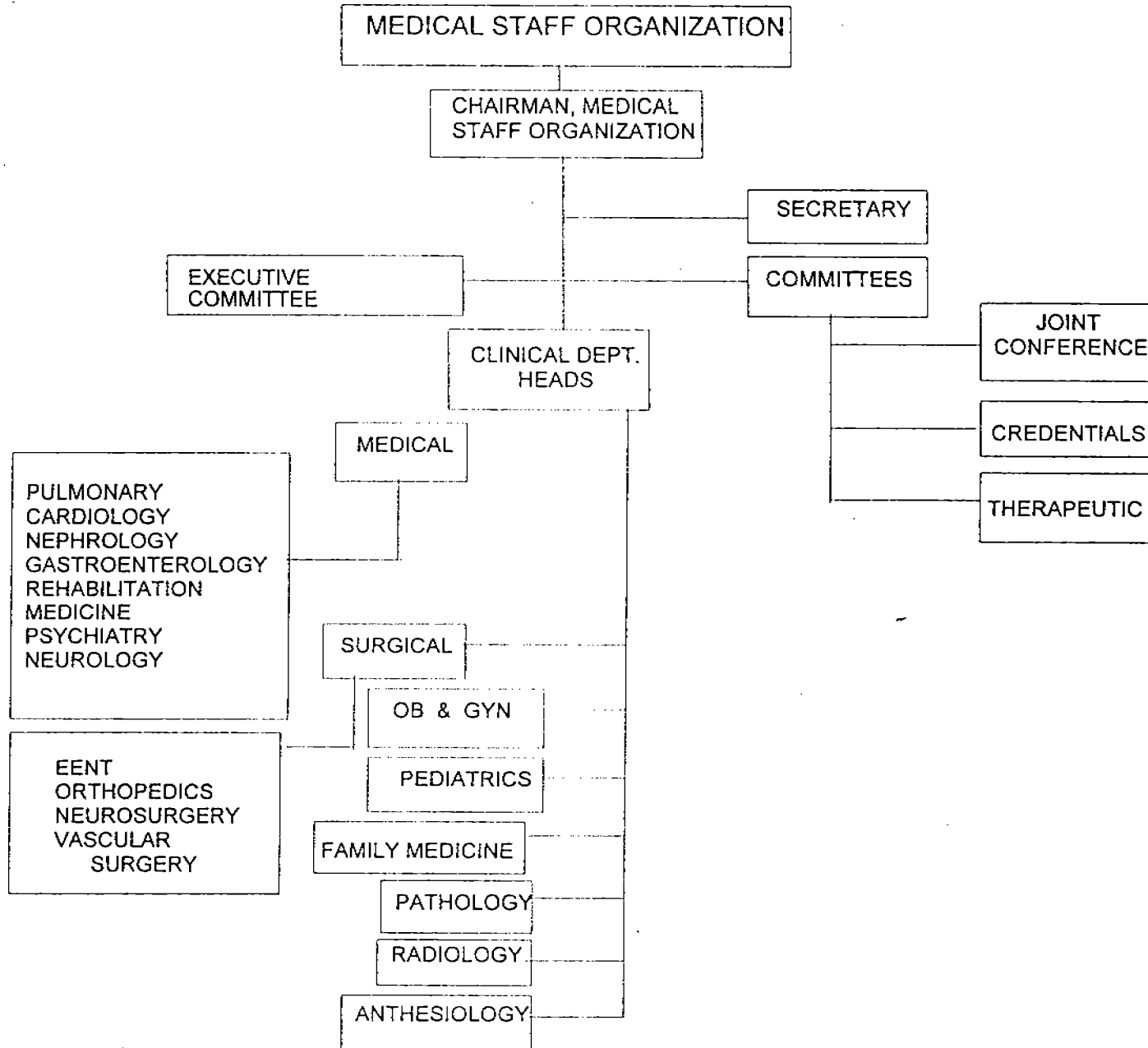


TABLE 3.6

**ACTUAL PERSONNEL COMPLIMENT OF
PERPETUAL SUCCOUR HOSPITAL**

POSITIONS	1988	1989	1990	1991	1992
Physicians (residents)	20	23	27	26	33
Nurses	45	50	49	70	87
Nursing Aides	19	25	26	29	29
Midwives	12				
Administrative	18				
Professional		27	27	28	39
Non-Professional					
Dentists	1		2	3	3
Dental Aide	1				
Medical Technologists	10	12	13	13	
Laboratory Aide	1	1			15
X-ray Technicians	4	3	5	4	
Pharmacists	5	6	6	8	5
Pharmacy Aide	1				10
Social Worker	1	1	1	1	1
Dietician in Dietary Personnel	2	3	4	3	4
Engineers	1	1	2	2	2
Casuals:					
Gardener	4				
Institutional Worker / Housekeeping	17	5		4	
Cook		4	4	4	4
Food Service Worker		6	7	11	7
Orderly / Janitor		14	17	16	23
Others:					
(specify)					
Physical Therapist	1				
Maintenance	4	13	4	6	5
Dietary Aide	11				
Linen & Laundry	12		12	13	13
Driver	1		2	2	2
Medical Record Clerk	2				
Secretary	2	3			
Total	195	197	208	243	282

FIGURE 3.3
G2 HOSPITAL
ORGANIZATIONAL CHART(1992)
NURSING SERVICE

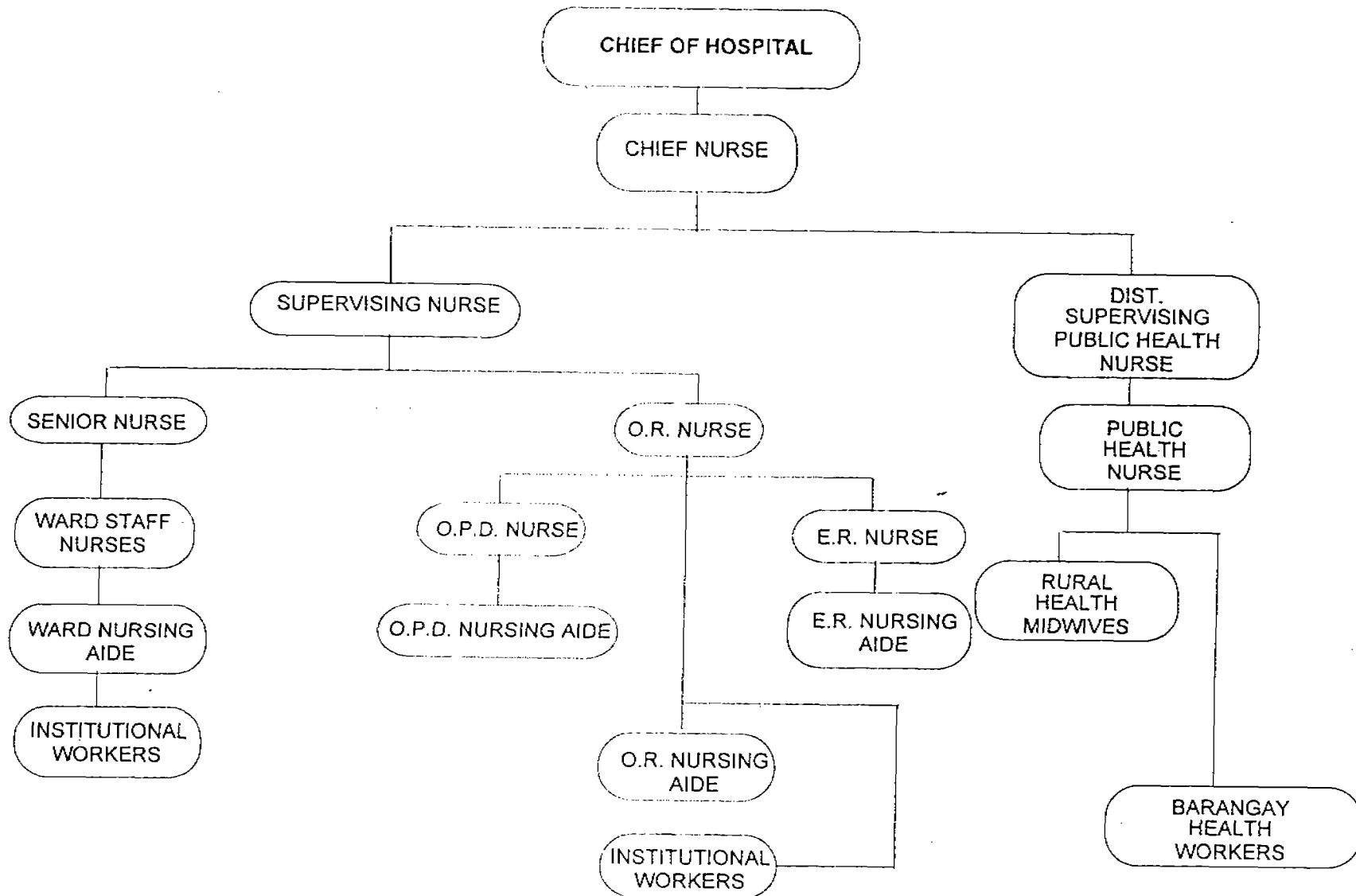


TABLE 3.7
ACTUAL PERSONNEL COMPLEMENT OF
G2 HOSPITAL

POSITIONS	1989	1990	1991	1992
Physicians	12	12		8
Nurses	22	22		19
Nursing Aide	16	16		16
Midwives	16	16		1
Administrative	16	16		15
Dentists	3	3		1
Dental Aides	2	2		
Medical Technologists	2	2		1
Medical Records Officers				1
Laboratory Technicians				
Laboratory Aides				
X-ray Technicians	2	2		2
Pharmacists	1	1		1
Pharmacy Aide				
Social Worker	1	1		1
Dieticians incl. dietary personnel	6	6		5
Engineers				
Casuals				4
Institutional Workers/housekeeping aides	10	10		7
Others				
(Specify) Security Force	3	3		3
TOTAL	112	112		85

On the recruitment and retention of professional staff, the hospital does not have a problem due to its proximity to Metro Cebu, which is the center of medical training and related activities in this part of the country. In fact, the average length of service of the resident physicians is ten years. Furthermore, physicians are allowed to engage in private practice after office hours.

The problem arises in the retention of nurses - a situation shared by all the private and government hospitals. In the case of G2 Hospital, an average of two to three nurses, out of a total nursing service complement of nineteen 19, leave the hospital every year to go abroad, either to the U.S. or to the Middle East.

Employment of the administrative and support staff of the hospital is relatively stable, with the majority having an average of five to six years of service, despite the low pay. Some of those occupying higher positions rose from the ranks.

On the recruitment side, the chief of hospital laments the presence of political interference in the selection of candidates who may not be as qualified as the others.

D. Private Secondary Hospital (P2)

P2 Hospital is run by the owners themselves, each occupying the two major positions in the hospital, namely, the hospital administrator and medical director.

The hospital administrator has held positions in the government (former secretary to the city mayor and former acting-provincial governor, among others) and is active in the business community (founder and chairman of the board of directors of the Sandugo Multi-Purpose Industries Cooperatives and former branch attorney of the Philippine National Bank - local branch).

The medical director graduated with the degree of doctor of medicine at the Southwestern University, Cebu City and earned her diplomate in family medicine at the Academy of Family Physicians. She also serves as the treasurer of the Philippine Hospital Association, provincial chapter and school physician of a local college.

The hospital is serviced by 37 medical and non-medical staff. Table 3.8 presents the list of the personnel complement of the hospital for 1988 to 1992. Of the 37 members, 21 of them or 56 percent are classified as medical staff while 16 or 44 percent are non-medical personnel. The 21 medical staff is composed of the medical director, resident physicians, chief nurse and her staff nurses and nursing aides, a midwife, a medical technologist and assistant medical technologist, pharmacists, and medical consultants. The non-medical personnel, on the other hand, consist of the administrator, administrative assistant, office clerks, accountant, bookkeeper, X-ray and dialysis technician, cooks, food server and dishwasher, laundrywoman, utility and other maintenance workers.

Twenty-seven members or 73 percent are full-time while 10 or 27 percent are part-time. The number of hours the part-time staff work per week ranges from 8 to 72 hours depending on the job item. The nurses, nursing aides, and the medical technologists are the only staff members who are assigned by eight-hour shifts. There is neither an employee organization nor a labor union.

The hospital administrator and the medical director are basically the key hospital actors on decisions regarding capital expenditure, budget, personnel and fees.

Personnel administration responsibilities such as recruitment, selection, orientation, and training are done by the couple, the physician wife for the medical staff and the lawyer husband for the non-medical staff. Both personally supervise each and everyone in their specific duties.

Recruitment and selection of non-medical personnel are observed to be a very subjective process. The couple do not entertain walk-in applicants. A brother of the administrator who works at the Provincial Capitol recommends competent casuals for vacant hospital positions. Other candidates are referred by close friends and relatives. For example, the present chief nurse is a niece of the medical director.

For the medical staff, the hospital does not seem to have any choice in the selection process. P2 Hospital does not offer good training opportunities for its resident physicians, medical technologists and nurses. Limited equipment, limited medical-surgical cases and the absence of medical quality control systems deter anyone from pursuing progressive medical careers at the hospital. Thus, the medical director is compelled to hire anyone who may be interested when a vacancy arises. Those who initially seek employment at the hospital either make the institution a stepping stone towards a more stable career abroad or have priorities other than the desire for a good training. For example, one of its young resident physicians is concurrently a vice mayor of one of the nearby municipalities. He is also presently pursuing a nursing degree from a nearby university. His top priorities are, therefore, going abroad as a nurse or developing his political career, but not his job at P2 Hospital.

A major problem at P2 Hospital is the high turnover rate of resident physicians, medical technologists, and nurses. While the medical director continually complains of the high turnover of resident physicians (the maximum length of service of a resident physician is only 2 years), she, nonetheless, feels, "helpless" about the situation. The hospital does not enter into employment contracts with the resident physicians. The medical director says, "We cannot hold our doctors due to the low salaries we pay. Also, we cannot offer them good incentives." Some of the resident physicians moved out for further training in bigger hospitals in the country or abroad, while others pursued nursing studies in the hope of obtaining better employment opportunities abroad. It must be noted that while most nursing schools in the country have disallowed applicants who are medical doctors from pursuing nursing as a second degree, a nearby university still continues to accept such applicants not only from the province but also from other parts of the country.

TABLE 3.8
ACTUAL PERSONNEL COMPLEMENT OF
P2 HOSPITAL

POSITIONS	1988	1989	1990	1991	1992
Physicians	3	3	3	3	3
Nurses	5	5	5	5	6
Nursing Aide	5	5	5	5	5
Midwives	1	1	1	1	1
Administrative	5	5	5	5	4
Dentists					
Dental Aides					
Medical Technologists	1	1	1	2	1
Medical Records Officers	1	1	1	1	1
Laboratory Technicians					1
Laboratory Aides					
X-ray Technicians	1	1	1	2	2
Pharmacists	1	1	1	1	1
Pharmacy Aide					
Social Worker					
Dieticians incl. dietary personnel	4	4	4	4	4
Engineers	1	1	1	1	1
Casuals	2	2			
Institutional Workers/housekeeping aide	4	4	5	5	6
Others (Specify)				1	1
TOTAL	34	34	32	36	37

A high turnover rate is also observed among nurses. Every year, two to three nurses leave for better opportunities abroad.

Philippine hospitals, both government and private, share a common problem of staff retention especially for nurses. Overseas employment opportunities and the relatively low salaries that Philippine hospitals can offer these nurses, compel them to leave the country at an alarming rate. Although foreign exchange inward remittances from these overseas medical workers benefit the economy's balance of payments, the Philippine hospitals they leave behind suffer from the need to continually recruit and train new graduates.

The observations of government hospitals point to a generally low level of employee satisfaction despite the possibly higher salary rates they enjoy over their private counterparts. Much of this general dissatisfaction appears to depend on the leadership style of the chief of hospital, indicating a need for leadership training (as opposed to simply managerial training) of government hospital heads and prospective heads.

3.5.4 Pricing Decisions

In medical care, price tends to be a very flexible factor. Market segmentation distinguishes the price-sensitive from the quality-conscious consumers. Price may be the only factor considered by some consumers or it may be completely ignored by others.

A survey conducted by the Philippine Hospital Association in January of 1985 on hospital rates notes that private hospital rates were more than double that of the government rates. Primary and secondary private hospital rates were also comparable to government tertiary hospitals. Tables 3.9 and 3.10 show average hospital room rates in different regions from 1986 to 1989, and estimated room rates by type and category in 1987. These tables support the PHA 1985 survey conclusions.

Solon (1991 p. ix) also notes that the highest income groups are availing of public hospital private rooms suggesting that higher rates should be charged by public hospitals to these higher income customers to increase the cost recovery rates of the public hospitals.

Alcaraz (1991 p. 64-65) reports an observation that even in private hospitals, fees are adjusted according to the patient's ability to pay for their hospitalization fees.

Bengzon (1972 pp. 85-87) reports on the pricing decisions of the six big private hospitals covered in his study. "The main services offered and which are traditional and therefore almost identical among the six hospitals are: room and board and ancillary or specialized services for diagnosis and treatment. Rates and charges are also quite comparable, underscoring the awareness of competition that hospitals have, for rates are determined more by qualitative judgement on such questions as: What are the other hospitals charging or, how will the public react, rather than by quantitative measurements of such factors as a certain percent of costs, and the like."

**TABLE 3.9 AVERAGE RATE OF A DAY'S STAY IN A PRIVATE HOSPITAL ROOM
1986-1989, IN PESOS**

REGION		1986	1987	1988	1989
NCR		308.00	366.00	396.00	396.00
Region I	Ilocos	88.81	90.00	82.50	92.32
Region II	Cagayan Valley	41.54	42.67	45.21	45.21
Region III	Central Luzon	112.60	130.50	132.75	134.50
Region IV	Southern Tagalog	67.81	82.00	92.87	99.87
Region V	Bicol	76.00	83.42	84.69	86.39
Region VI	Western Visayas	92.83	97.83	101.12	108.62
Region VII	Central Visayas	79.83	84.62	105.51	118.00
Region VIII	Eastern Visayas	71.85	74.52	73.60	73.60
Region IX	Western Visayas	80.55	88.61	91.94	N.D.
Region X	Northern Mindanao	57.50	57.14	59.94	61.25
Region XI	Southern Mindanao	129.50	132.62	114.67	115.08
Region XII	Central Mindanao	96.00	97.00	97.50	108.75

Notes: N.D. - No Data

Source: National Statistics Office as reported in the Philippine Health Care Factbook, 1990
Center for Research and Communication

From: Solon (1991) Health Sector Financing in the Philippines Vol. II, RTI/UPSE.

**TABLE 3.10 ESTIMATED ROOM RATES OF HOSPITALS PER HOSPITAL TYPE & CATEGORY
PER ROOM ACCOMODATION, PHILIPPINES, 1987**

HOSPITAL TYPE AND HOSPITAL CATEGORY	ROOM ACCOMODATION (P/DAY)							
	WARD ROOM		SEMI-PRIVATE ROOM		PRIVATE		SPECIAL (SUITE)	
	AVERAGE	MAJORITY RANGE	AVERAGE	MAJORITY RANGE	AVERAGE	MAJORITY RANGE	AVERAGE	MAJORITY RANGE
PRIVATE HOSPITAL								
Primary	50.00	40.00-160.00	75.00	60.00-85.00	100.00	90.00-120.00	210.00	200.00-220.00
Secondary	60.00	50.00-70.00	95.00	90.00-120.00	160.00		200.00	
Tertiary	70.00	60.00-80.00	130.00		220.00		450.00	300.00-600.00
GOVERNMENTAL HOSPITAL								
Primary	Medicare Rate	Medicare Rate	45.00	40.50-50.00	65.00	60.00-70.00		
Secondary	30.00	Medicare Rate	55.00	50.00-60.00	75.00	70.00-80.00		
Tertiary	40.00	Medicare Rate	55.00	50.00-60.00	100.00	100.00-120.00		

Source: PMCC

From: Solon (1991), *Health Sector Financing in the Philippines, Vol. II, RTI/UPSE*.

In contrast, Santos (1987 p. 129) reports that in Singian Memorial Hospital (SMH) the rates charged were determined by the administrator. Rate increases are usually triggered by the Chief Accountant's report of "problems in cash flow and operating results." In comparing SMH's rates with another tertiary general hospital and a medical center, Santos notes that SMH room accommodation rates were lowest for ward and private rooms. Its semi-private and suite room rates were slightly higher than those of the other tertiary hospital and the medical center, respectively. SMH basic laboratory and x-ray services were priced lower than the two other hospitals.

The question is whether Philippine hospitals are price takers or price leaders and how they perceive the demand elasticity of their customers for their various services. Part of the problem in attaining financial viability among hospitals is their capability to recover costs through a proper pricing system. Although it will be difficult to measure demand elasticities for the hospitals' various services, the case studies below determine the perception of hospital administrators of their markets and how they formulate their pricing policies. The literature reviewed indicate a mixed behavior among different hospitals. Some are price takers, while others initiate price changes if cost movements and financial conditions warrant the adjustment.

Below are the key actors or decision-makers for hospital fees in both the government and private hospitals:

1. CCMC - City Treasurer's Office
2. MDH - Hospital Administrator

The CCMC, being a city government hospital, remits all income from hospital services to the city treasurer's office. As the recipient of the hospital's income the city treasurer determines the fees the hospital should charge its patients.

The hospital administrator of the MDH, on the other hand, provides for adequate current financing by establishing collection procedures and enforcing economy and by recommending the fee schedule for charges related to cost.

As we note, the role that each decision maker plays, as well as the decision making processes differ even among government hospitals and among private hospitals.

The following are observations regarding fee structures and fee decision making in the four case study hospitals.

A. Government Tertiary Hospital (G3)

G3 Hospital, being a government hospital, follows the rates and prices prescribed by the Department of Health and the Philippine Medicare Commission for hospital facilities and services. The daily rate for the pay wards is P35, P12 for the Charity ward, and P120 for the

Medicare ward. Table 3.11 presents the rates for the laboratory examinations. Table 3.12 presents the acquisition cost per unit and the retail price per unit of the top twenty saleable medicines and drugs.

B. Private Tertiary Hospital (P3)

The room and board rates of P3 Hospital are shown in Table 3.13, while Table 3.14 shows its laboratory fee rates.

C. Government Secondary Hospital (G2)

G2 Hospital, as a government hospital, also follows the rates and prices prescribed by the Department of Health and the Philippine Medicare Commission for hospital facilities and services. In some instances, however, prices for services are determined by the chief of hospital. Records also show that prices changed once in five years and in minimal amounts. Table 3.15 presents the price list of facilities and services of G2 Hospital. Table 3.16 shows the price list of some drugs and medicine available in the hospital pharmacy.

D. Private Secondary Hospital (P2)

Table 3.17 shows P2 Hospital's fee rates. The daily room rates according to accommodation, laboratory and ancillary service fees, medicine, and operation and professional fees are determined primarily by the cost of inputs which include the purchase price of the materials plus overhead cost. Other factors considered important in the pricing policies for the various services are the quality of service that the hospital offers and the ability of the patients to pay. The prices of the other hospitals, as well as the target income from hospital operations were considered less important in pricing the services. The administrator pointed out that their prices are set within the rates prescribed by the Medicare and as agreed upon by the members of the provincial chapter of the Philippine Hospital Association. The hospital, however, does not set the fees of visiting consultants or visiting surgeons. Patients are advised to discuss consultation fees directly with these consultants.

It may be worthwhile to point out once more that government hospital fee rates are outdated and causing a tremendous drain on the limited financial resources of the public hospital system. Private hospital pricing decisions, on the other hand, appear to be based on an oligopolistic behavior. Private hospitals do not seem to use price as a tool to compete. They appear to use instead image enhancement through sophisticated equipment, which is in consonance with the theory that doctors play a major role in determining which hospital patients go to. Doctors may be more sensitive to the type of equipment than to the prices of hospital services. This observation may lead one to speculate that the demand for hospital services may be price inelastic.

Another interesting observation made was that relative prices of different services in two different hospitals may be reversed such that one hospital may have lower room and board rates but may have higher laboratory rates. This would make it difficult for an uninitiated patient to

TABLE 3.11
Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

November 5, 1990

ADMINISTRATIVE ORDER
 No. 97 s., 1990

By virtue of the authority of the Secretary of Health under Executive order No. 119 dated January 30, 1991, to promulgate rules and regulations necessary to carry out the Department of Health objectives, policies, plans, programs and prospects, pursuant to section 2, General Provisions of Republic Act No. 6831, otherwise known as General Appropriations Act of CY 1990, the following fees shall be charged for certain laboratory examinations performed in the Bureau of Research and Laboratories, this Department :

Laboratory Examination	Fee
A. Blood Chemistry	
1. FBS (Fasting Blood Sugar)	P60.00
2. BUN	60.00
3. CHOLESTEROL	60.00
4. URINALYSIS	60.00
5. URIC ACID	60.00
6. ALT	80.00
7. AST	80.00
8. ALKALINE PHOTAPHASE	80.00
9. TRIGLYCERIDES	90.00
10. TOTAL PROTEIN	60.00
11. TOTAL BILIRUBIN	80.00
12. CHLORIDE	60.00
13. CO2	80.00
14. Na	80.00
15. K	80.00
16. CHOLESTEROL	120.00
17. ACID PHOSPHATASE	80.00

G3 HOSPITAL
ACQUISITION COST PER UNIT AND RETAIL PRICE PER UNIT OF THE
TWENTY SALEABLE MEDICINES
TABLE 3.12

1988	<i>Acquisition Cost</i>	<i>Retail Cost</i>	1989	<i>Acquisition Cost</i>	<i>Retail Cost</i>
1. Amoxicillin Caps (Roxillin)	0.17	0.20	1. Acetaminophen tabs (Paracetamol)	0.17	0.20
2. Aluminum Hydroxide Tab	0.75	0.80	2. AL (OH)3 MG(OH) 2 Tabs (Cremalin)	0.75	0.80
3. Acetaminophen Tabs (Paracetamol)	1.31	1.45	3. Ampicillin 500 mg caps (Ampidan)	1.31	1.45
4. Acetaminophen Tabs (Winadol)	1.57	1.70	4. AL(OH)3 MG(OH) 2 Tabs (Maalox)	1.57	1.70
5. Cephradin 500 mg caps (Velosef)	7.00	7.70	5. Bacampicillin 800 mg tabs	7.00	7.70
6. Dextrose 5% LR Liter	4.55	5.00	6. Chloramphenicol 16m. vial	4.55	5.00
7. Epicillin 500 mg caps	7.10	7.80	7. Cephalexin 500 mg caps	7.10	7.80
8. INB 500 cc	13.98	15.40	8. Chloramphenicol 16m. vial	13.98	15.40
9. INN tab plain	16.33	17.95	9. Cephradine 500 mg caps	16.33	17.95
10. Mefermamic Acid (Ponstan caps)	24.20	26.65	10. Dextrose 5% NSS liter	24.20	26.65
11. Plasmalyte M. Liter (Normasol)	22.90	24.20	11. Dextrose 5% LRS liter	22.90	24.20
12. Penicillin G. Sod. I Mil. Vial	22.00	24.20	12. Dextrose 5% 0.3 Nacl 500 cc	22.00	24.20
13. Propoxycaine Hol. Carps (Revocative)	1.74	1.90	13. Ethambutol w/ INN tabs (Genamzid)	1.74	1.90
14. S.V.G. 21	6.53	7.20	14. Epicillin 500 mg caps (Dexacillin)	6.53	7.20
15. S.V.G. 23	1.94	2.15	15. Glatenine caps 200 mg	1.94	2.15
16. Macro set adult	5.87	6.50	16. Penicillin G. Sodium 1 M vial	5.87	6.50
17. Terbutalime 5 mg tabs	23.50	25.80	17. Penicillin G. Sodium 5 M vial	23.50	25.80
18. Ethambutol w/ INN tabs (Genamzid)	3.85	4.25	18. Propoxycaine Ho. Carps	3.85	4.25
19. Dextrose 5% 0.3 Nacl 500 cc	8.64	9.50	19. Piroxicam 20 mg caps (Feldene)	8.64	9.50
20. Dextrose 5% 0.3 Nacl liter	3.60	4.00	20. S.V.G. 21	3.60	4.00

**G3 HOSPITAL
ACQUISITION COST PER UNIT AND RETAIL PRICE PER UNIT OF THE
TWENTY SALEABLE MEDICINES
TABLE 3.12 (cont.)**

1990	1992		1992	1992	
	Acquisition Cost	Retail Cost		Acquisition Cost	Retail Cost
1. Ampicillin 500 mg caps	1.31	1.45	1. Ampicillin 250 mg vial	24.65	27.15
2. Ampicillin 250 mg caps	1.04	1.20	2. Chloramphenicol 500g mg caps	4.23	4.65
3. Al(OH) Ng(OH) tabs	1.24	1.35	3. Dextrose 5% NSS liter	24.20	26.65
4. Cephradin 500 mg caps	17.96	19.75	4. Dextrose 5% LRS liter	22.90	25.20
5. Chloramphenicol 500g mg caps	4.91	5.40	5. Ferrous Sulfate tab	0.80	0.90
6. Chloramphenicol 1 gm vial	34.13	37.55	6. Glafenine 200 mg caps	1.94	2.15
7. Carbocystaine caps	4.28	4.70	7. Multivitamins tabs	3.25	3.60
8. Dibekacin 50 mg vial	48.73	53.60	8. Methylergometric tabs	0.80	0.90
9. Dextrose 5% Water 500 cc	24.80	27.30	9. Ofloxacin 200 mg tablet	13.00	14.30
10. Glafenine 200 mg caps	1.94	2.15	10. Paracetamol 600 mg tab	1.35	1.50
11. Imperol 1.5% liter	48.34	53.10	11. S.V.G. 21	4.82	5.30
12. Multi-vitamins tabs	0.16	0.17	12. Nalbuphine capsule	27.35	30.10
13. Nalbuphine capsule	20.80	22.88	13. Nefidipine 5 mg tabs	1.98	2.20
14. Nefidipine 5 mg tabs	1.98	2.20	14. INH 400 mg tabs (Trisofort)	0.75	0.80
15. Propoxycaine Carps	6.34	7.00	15. Isosorbide 10 mg tabs	2.84	3.15
16. Penicillin G. Na 1 M vial	5.40	5.94	16. Dextrose 5% 0.3 Nacl Liter	24.20	26.65
17. Penicillin G. Na 5 M vial	23.00	25.30	17. Cephalexin 500 mg caps	7.10	7.80
18. Paracetamol 500 mg tabs	1.32	1.45	18. Cephradin 500 mg caps	16.09	17.70
19. S.V.G. 21	2.64	2.80	19. Al(OH) + Ng(OH) tabs	0.75	0.85
20. Sulbenicillin 1 gm. vial	82.20	90.45	20. Propoxycaine Hol. Carps (Revocative)	3.85	4.25

**TABLE 3.13
ROOM AND BOARD RATES
P3 HOSPITAL**

<u>FLOOR II, PRIVATE ROOMS</u>	<u>RATES</u>
Private (small)	P 435.00
Private (big)	465.00
Semi-Suite room	615.00
Suite A (w/ refrigerator)	925.00
Suite B	770.00
ICCU	615.00
Other ICCU Fees	180.00
 <u>OB-GYNE DEPARTMENT</u>	
201	Semi-charity
Semi-private	335.00
Private	435.00
Payward	110.00
 <u>MEDICAL EXTENSION</u>	
Payward	110.00
Semi-private	335.00
 <u>PEDIATRICS DEPARTMENT</u>	
245, 247	Semi-charity
Payward	110.00
 <u>NEURO PSYCHIATRIC WARD</u>	
Private	230.00
Payward	170.00
 <u>NURSERY</u>	
Suite Room, Boarder, Isolette	155.00
Private	140.00
Payward	125.00
 <u>FLOOR I</u>	
FSW, MSW, FMW, FGW	Semi-charity

**TABLE 3.13 (cont.)
P3 HOSPITAL ROOM RATES
As of September 15, 1992**

IMU	800.00
BOARDER	160.00
NURSERY	
Private non-aircon	150.00
Private aircon	160.00
Suite/semi-suite	190.00
Ward	130.00
Room: 201 Suite Room	680.00
202 202 Suite Room	680.00
202 203 Private aircon	400.00
202 204 Suite Room	400.00
202 205 Private aircon	400.00
202 206 Private aircon	400.00
202 207 Private aircon	400.00
202 208 Private aircon	400.00
202 209 Private aircon	400.00
202 210 Private aircon	400.00
202 211 Private aircon	415.00
202 212 Private aircon	415.00
202 215 Private aircon	415.00
202 216 a	315.00
202 216 b. SP non-aircon	300.00
202 216 c SP non-aircon	300.00
202 217 Private aircon	530.00
202 218 Private non-aircon	415.00
202 219 Private aircon	415.00
202 220 Private aircon	415.00
202 221 Private aircon	415.00
202 222 Private non-aircon	415.00
202 223 Suite Room	950.00
202 224 Private aircon	415.00
202 225 Semi-suite Room	415.00
202 226 Private aircon	415.00
202 227 Private aircon	415.00
202 228 Private aircon	415.00
202 229 Private aircon	415.00
202 230 Private aircon	415.00
202 231 Private aircon	415.00

**TABLE 3.13 (cont.)
P3 HOSPITAL ROOM RATES
As of September 15, 1992**

202 232	Private non-aircon	300.00
202 233	Private aircon	415.00
202 234	Private Non-aircon	300.00
202 235	Private non-aircon	300.00
202 236	Semi-suite Room	565.00
202 237	Semi-suite Room	565.00
202 238	Private aircon	480.00
202 239	Private aircon	480.00
202 240	Private aircon	480.00
202 241	Semi-suite Room	595.00
202 242	Private aircon	480.00
202 243	Semi-suite Room	550.00
202 244	Private aircon	480.00
202 245	Private aircon	480.00
202 246	Semi-suite Room	550.00
202 247	Private aircon	480.00
202 248	Private aircon	480.00
202 249	Private aircon	480.00
202 250	Semi-suite Room	550.00
202 251	Semi-suite Room	500.00
202 252	Suite Room	630.00
202 253	Suite Room	680.00
202 254	Suite Room	680.00
202 255	Suite Room	680.00
202		
202 101 (abc)	Semi-Private non-aircon	195.00
202 102 (abc)	Semi-Private non-aircon	195.00
202 103	Semi-suite Room	500.00
202 104	Semi-suite Room	565.00
202 105	Semi-suite Room	565.00
202 106	Semi-suite Room	565.00
202 107	Semi-suite Room	565.00
202 108	Semi-suite Room	565.00
202 109	Semi-suite Room	565.00
202 110	Semi-suite Room	565.00
202 111	Semi-suite Room	565.00
202 112	Semi-suite Room	565.00
202 113	Semi-suite Room	565.00
202 114	Semi-suite Room	565.00
ISO		150.00
TR		145.00
WARD		130.00
ROOM - IN		
S/SS/PAC		90.00
PNA/WARD/SP		80.00

**TABLE 3.14
LABORATORY FEE RATES
P3 HOSPITAL**

A. GENERAL CHEMISTRY	
Amylase (Serum or Urine)	P 170.00
Bilirubin (Direct or Indirect)	170.00
Calcium	170.00
Blood Urea Nitrogen	130.00
Blood Uric Acid	130.00
Creatinine	130.00
Glucose	170.00
Phosphatase, Alkaline Acid	170.00
Protein Total	130.00
Protein, total and A/G ratio	170.00
SGOT	170.00
SGPT	170.00
Triglycerides	200.00
Potassium	160.00
Sodium	160.00
Potassium and Sodium	300.00
Cholesterol, Total	165.00
Cholesterol, HDL	200.00
B. HEMATOLOGY	
Routine CBC	90.00
Includes	
a) WBC Count	
b) Hemoglobin - of serial determination	
c) Hematocrit for both HB & HCT	45.00
Note: Examinations of any single item above	35.00
WBC and Differential count	60.00
Red Blood Cell Count	50.00
Bleeding and Clotting Time	105.00
Bleeding Time	55.00
Clotting Time	55.00
Clot Retraction Time	55.00
Erythrocyte Sedimentation Rate	60.00
LE Preparation	145.00
Malarial smear	90.00
Osmotic Fragility Test	155.00
Platelet Count	90.00
Peripheral Blood Smear Study	130.00
Prothrombin Time	215.00
Reticulocyte Count	75.00
Red Cell Indices	115.00
Sperm Count	130.00
Includes:	
a) RBC count	
b) Hemoglobin	
c) Hemotocrit	
Bone Marrow Smear	390.00

TABLE 3.15
G2 HOSPITAL
PRICE LIST OF HOSPITAL FACILITIES AND SERVICES

<u>HOSPITAL FACILITY</u>	<u>RATE (in Pesos)</u>
Room and Board (wards)	100
Professional Fee:	
General Practitioner	55
Medical Practitioner	80
Laboratory	
FBS	60
Blood Typing	40
RH Typing	60
CBC	60
Bleeding Time/Clotting Time	50
Platelet Count	80
Malaria Detection	50
Evaluation of Peripheral Smear	100
HCT	20
S/E	30
Occult Blood	25
Acid Fast Stain	50
Gram Stain	50
Urinalysis	30
Oxygen	10 pound

TABLE 3.16
G2 HOSPITAL
DRUGS / MEDICINES PRICES
(As of December, 1992)

<i>NAME OF MEDICINE</i>	<i>COST PRICE</i>		<i>SELLING PRICE</i>	
Acetaminophin suppository	P	3.05	P	3.10
Amoxicillin 500 mg. caps		7.00		7.70
Amino Acids amps.		50.00		55.00
Aminophylline amps.		13.95		15.35
Atropine So4 amps.		2.35		2.50
Ampicillin & Sulbacta 750 mg		92.72		102.00
Amoxicillin 500 mg vials		62.20		68.45
Butropicillin Bromide caps		3.41		3.75
Bacampicillin 400 mg		8.50		9.50
Butterfly g19		21.00		23.50
Butterfly g21		21.00		23.50
Butterfly g23		21.00		23.50
Butterfly g25		21.00		23.50
Calcium Gluconate amp.		7.80		8.60
Chlorphenaramine maleat amp.		6.20		6.80
Chlonidine amps.		23.80		26.20
Cefalexin 1 gm		77.60		85.40
Cephradine 500 mg caps.		17.97		19.80
Catropin 25 mg		5.50		6.05
Clemastine fumarate amps.		43.40		47.75
Cotrimoxazole Susp.		52.60		57.90
Epinephrine CHI		4.95		5.45
Erythromycin drops		29.35		32.30
Etafamide susp.		67.80		74.50
Erythromycin stearate		4.16		4.60
Dextrose 10% water 1 liter		32.75		36.05
Dextrose 10% water 500 ml.		24.50		27.00
Plain Lactated Ringers liter		28.89		31.00
L50 .3% Nace 500 cc		23.91		26.30
D50 .9% Nace 1 liter		26.18		28.80
DAFA		31.50		34.65
IMB 500 CC		25.00		27.50
D5 W 1 liter		27.88		30.70
D10% N 3 cc.		4.65		5.15
D5 M 1 liter		30.50		33.55
Normosol M 1 liter		29.70		32.70

TABLE 3.16 (cont.)
G2 HOSPITAL
DRUGS / MEDICINES PRICES
(As of December, 1992)

<i>NAME OF MEDICINE</i>	<i>COST PRICE</i>	<i>SELLING PRICE</i>
Dibelcacin	76.08	83.70
Diazepan 10 mg amp.	31.52	56.70
Furosemide Amp. 20 mg	6.49	7.15
Flurbiprofen	4.92	5.45
Guiafenessin Syr 60 ml	20.00	20.20
Gelafumidine	240.00	264.00
Hydralazine 20 mg amp.	44.05	48.45
Hyoscine-n-butylbromide tab.	30.50	33.55
Hydrocortisone Na Succinate 250 mg	196.55	216.20
Isosorbide dinitrate 5 mg.	3.00	3.30
Mefanamic acid 500 mg	0.85	0.95
Kumahione amp. 10 mg	70.40	77.45
Midazolca 15 mg tablet	12.76	14.05
Methyldopa 250 mg	1.75	1.95
Methylgometrine maleat amp.	36.86	40.65
Magnesium SO4 50%	6.95	7.65
Magnesium SO 25%	10.00	10.10
Midazolac 5 mg amp.	6.50	66.55
Midazolac 15 mg amp.	79.60	87.60
Metropramide amp.	11.00	12.10
Myuidine 100 mg amps	37.30	41.05
Menadion Amp.	4.40	4.85
Nystatin Susp.	67.00	73.70
Nalbuphrine HCl	26.60	28.20
Nasogastric tube french 5	18.75	20.65
Nasogastric tube french 8	12.35	13.60
Natrogastic tube french 12	12.35	13.60
Nastrogastic tube french 14	26.00	28.60
Natrogastic tube frnech 16	33.20	36.45
Nifedipine 10 mg	6.50	7.15
Neostigmine	22.30	24.55
Nafcillin Na Susp.	67.80	74.60
Nicardipine 10 mg	3.85	4.25
Nifedipine 5 mg	1.75	1.95
Oxytoxin 10 units	7.60	8.40

TABLE 3.16 (cont.)
G2 HOSPITAL
DRUGS / MEDICINES PRICES
(As of December, 1992)

<i>NAME OF MEDICINE</i>	<i>COST PRICE</i>	<i>SELLING PRICE</i>
Promediazine HCl	25.45	28.00
Pengumil	6.25	6.90
Phenobarbital supp.	3.25	3.60
Pen G. Na 5 million	27.00	29.70
Prabosic 1 mg	5.77	6.35
Pipamidic acid	10.34	11.40
Paracetamol 600 mg tabs	0.60	0.70
Sodium bicarbonate	51.75	56.95
Sulbencillin IVTT	82.50	90.75
Sulbenicillin IM	87.50	96.25
Sulfadiazine cream	120.00	132.00
Salbutalmol nebule	14.90	16.40
Trinidazole susp.	46.80	51.50
Tetanus Antitoxin 5,000	70.00	77.00
Terbutaline SO4 amp.	23.50	25.85
Tetracaine HCl	109.40	120.85
Tulle dressing	15.00	16.00
Traxenamic Acid amp. 250 mg	14.50	15.95
Traxenamic Acid 500 mg caps.	4.95	5.45
Venosit 78	43.00	47.30
Venosit micro	49.00	53.90
Venflow g18	67.50	74.25
Venflow g22	67.50	74.25
Venflow g24	89.00	97.90

TABLE 3.17
P 2 HOSPITAL
HOSPITAL CHARGES PER FACILITY

<u>HOSPITAL FACILITIES</u>	<u>RATES / PR</u>
ROOMS	
Suite room (V & A)	600.00
Rm. A & V	
I (airconditioned)	550.00
VIII (airconditioned)	550.00
Private (non-airconditioned)	350.00
Semi-private	200.00
Ward	100-130.00
DIAGNOSTIC EXAMINATIONS	
Chest X-ray	230.00
Plain abdomen	250.00
Pelvic ultra-sound	450.00
ECG	220.00
LABORATORY EXAMINATIONS	
Urinalysis	35.00
Malarial smear	70.00
Fecalysis	35.00
Sputum exam for AFB	50.00
Pregnancy test	130.00
X-matching	75.00
Complete blood count	60.00
Platelet count	50.00
Sodium	180.00
Potassium	180.00
Calcium	120.00
FBS	100.00
THERAPEUTIC MACHINES	
Suction machine	50.00
Oxygen	0.14
Incubator	350.00
OUT-PATIENT CONSULTATIONS	
Medicine	40-60.00
Surgery	40-60.00
OB Gyne	40-60.00
Pediatrics	40-60.00

determine which of the two hospitals he would eventually be paying less for the entire hospitalization if the quantity used for each type of service is uncertain.

3.6 Control Systems

Control is an element of management which enables the manager to direct the organization towards its objectives. The process of control involves three elements: 1) setting standards, 2) measuring performance against standards, and 3) correcting deviations from standards. Since the main objectives of the hospital are to provide quality patient care and to maintain the financial viability of the organization, hospital management control systems consist mainly of two types: quality control and financial control.

3.6.1 Quality Control

Schulz and Johnson (1983) point out three approaches to the evaluation of quality: 1) structure, 2) process, and 3) outcome. Evaluation of structure assumes a relationship between the structural elements such as staff qualifications, physical structure and formal organization, and the possibility of better care. Examples of this type of control devices are licensure, certification of facilities and accreditation. Assessment of process is exemplified by the use of the medical records committee and other medical audit committees. They evaluate the activities of physicians and other health professionals in the management of patient care. Assessment of outcomes reviews the end results in term of patient health and satisfaction.

Developed countries have formulated some general quality indicators to trigger the need to carefully review the work of hospital professionals (Crisostomo 1976). These are:

1. the occupancy rate is below 75 percent.
2. the length of stay of a patient is 12 days or over.
3. death rate is more than 3 or 4 percent.
4. 1 or 2 percent of clear surgical patients develop infections.
5. the complications of surgical cases are more than 3 or 4 percent.
6. autopsy rate is less than 25 percent.
7. unnecessary surgery is more than 5 percent.
8. number of conferences and number of physicians attending.
9. gross result of patient cases in specified period - number of patients recovered, improved, not treated.

The Philippine Department of Health has not yet developed similar audit standards for hospitals. It would be interesting to know, however, if some Philippine hospitals adopt, for internal purposes, similar indicators.

Depending on the type of the hospital, various quality control systems having varying functions may exist. These include any or all of the following:

The Medical Audit

The medical audit reviews the overall professional work in the hospital. OLLH and APH have this system. It measures the quality of patient care by detecting staff deficiency and identifies measures for correction, develops programs for improvement of care, and evaluates the effects of policies on the quality of care. CMC also has this system.

In the case of QCGH, the medical audit consists of two components, i.e., formal and informal. Its formal functions are primarily undertaken by the medical staff by examining the pattern of patient care through the medical records. Statistics derived from these records are then presented by the different departments and compared with patterns of the standard (the derivation of the standards is, however, not discussed in detail in the study). The informal medical audit consists of service rounds, monthly case presentations, journal club meetings, clinical case discussions, pre- and post-operative conferences at department levels, case referrals to visiting consultants and other case studies.

Nursing Audit

Among the hospitals surveyed, the nursing audit exists in the QCGH and OLLH. It is a monthly hospital activity that evaluates patient nursing care through the following sets of activities: (1) identify patients needs and safety; (2) study patients' satisfaction; (3) establish standards for quality nursing care; and (4) identify staff development programs. In OLLH nursing audit techniques include observations through daily rounds.

Tissue Committee or Tumor Board

In the CMC, this committee reviews the results of all tissues removed after surgery. It also investigates cases of non-indicated surgery and finally recommends remedial measures for them. The OLLH tissue or tumor committee is responsible for surgical activities and maintenance of standards. In APH, RHCS, and CMC this body also studies the agreement or disagreement among pre- and post-operative and pathologic diagnosis. In CMC, it also recommends treatment protocol for tumor cases.

Infection Committee

Typical infection committees are found in the OLLH and CMC. In the former, it is responsible for conducting spot surveys and instituting a system of reporting infection. It reviews aseptic techniques, formulates and enforces rules and regulations pertaining to infections, and treats all existing cases. The latter's committee on control of infection institutes control measures to check the infection as in the OLLH.

Therapeutic Committee

The OLLH therapeutic committee has the following quality control functions: (1) recommends policies to govern the use of drugs (2) evaluates clinical data on drugs proposed for use (3) prevents unnecessary duplication of drug products; (4) reviews procedures for prescribing, dispensing, and administering drugs; and (5) ensures continuous revision of the hospital therapeutic list.

Its counterpart in CMC covers the following tasks; (1) determination of the kind and amount of drugs to be stocked; (2) evaluation of data on drugs requested for use in the hospital; (3) prevention of duplication of drugs; and (4) study of legislation on drugs, rules and regulations.

Finally, the therapeutic or pharmacy committee of the RHCS determines and evaluates the quality and quantity of drugs purchased per year.

Medical Records - Utilization Committee

This committee, in OLLH and RHCS, supervises and appraises the quality of medical care and ensures that the highest possible level is attained. In OLLH, it also reviews practices, utilization and turnover rates. Its counterpart in the CMC is called the library and medical records committee.

Committee on Credentials

The credentials committee of OLLH screens and recommends applicants to the medical executive committee for the classification status of the staff. The classification status of members are as visiting, active non-rotating, or active rotating. It also delineates privileges granted to members. It reviews for renewal the credentials of each staff member for the medical executive committee. These functions are also true for those in CMC and RHCS.

Scientific Committee

This committee is responsible for programming and preparing scientific lectures and seminars and the invitation of speakers.

In all three hospitals examined, OLLH, RHCS, CMC, the quality control committees were all reported to be working quite effectively. In a study by Aldea and others (1987) of a private tertiary hospital in Metro Manila, however, serious problems in the workings of these committees were reported. The disagreements and misunderstandings between the non-physician hospital administrator and the medical staff seem to have been responsible for this.

External quality control of Philippine hospitals are imposed through licensing laws and accreditation standards. Hospital licensure categorizes hospitals according to service capabilities

(primary, secondary, tertiary; provincial, regional, or medical center; teaching and training). Accreditation relates to the quality of services and its supporting elements: organization and management, utilization of resources, community involvement, etc.

The following observations were made regarding quality control in the four case study hospitals.

A. Government Tertiary Hospital (G3)

G3 Hospital employs the following quality control mechanisms:

- a. The medical audit committee is composed of the chief of clinics as chairman, with all department heads and the medical training officer as members.

The medical audit committee reviews the medical records of all patients discharged during the month; reports to the staff the names of members who are persistently delinquent in the completion of their records; and reviews and evaluates the quality of clinical work in the hospital and recommends measures to promote quality improvements.

- b. The credentials committee (medical teaching and training faculty) is composed of the chief of clinics as chairman, with all the medical department heads, the medical training officer, the medical specialists, and senior resident physicians as members.

Its functions are the following: (1) screen all applicants for residency training before submitting their names to the selection and promotion board; (2) evaluate appointments for promotion or renewal of the resident trainees from year to year; (3) screen and select consultants to the medical staff.

- c. The program and intern committee is composed of the medical training officer as chairman, with all heads of departments as members.

The program and intern committee takes charge of the selection, preparation and presentation of the clinical programs for the general meeting. It is directly responsible for planning and carrying out an adequate program for the interns' education.

- d. The Therapeutic Committee is composed of the chief of clinics as chairman, the department heads and the medical training officer as members and the head of the hospital pharmacy, the supply officer, senior clerk and the accountant as ex-officio members .

The therapeutic committee is responsible for the screening or choosing of drugs and medicines for use in the hospital.

- e. The tissue committee is composed of the head of the laboratory as chairman, with the head of radiology, all resident physicians of the laboratory and radiology and department heads of surgery and OB-Gyne as members.

It is responsible for the review and evaluation of surgery performance in the hospital on the basis of the agreement or disagreement among the pre-operative, post-operative and pathological diagnosis and the acceptability of the procedures undertaken.

Medical conferences are also used as control devices. The following are some of the procedures used for medical conferences.

- a. A medical conference, for the study of a particular case, may be called upon by the department head concerned.
- b. The request for a medical conference shall be directed to the president of the medical staff or chief of clinics or, in his absence, to the highest ranking department head present, who shall make arrangements for the holding of the medical conference.
- c. In a medical conference it is expected that the attending physician have available for the discussants the clinical history of the patient, x-ray and other diagnostic findings if possible, and other pertinent data which shall be needed for the medical conference.

There used to be a nursing audit, but this was discontinued because not all the necessary people could be available for the conferences. Nonetheless, the chief nurse claims that the absence of the nursing audit has not affected the performance of the nursing staff service. For instance, minor mistakes can be taken care of by the nursing supervisors. Incident reports and anecdotes are written by the supervisors and the nursing personnel involved are called by the chief nurse for a conference.

B. Private Tertiary Hospital (P3)

P3 Hospital uses most of the quality control measures used in tertiary private hospitals such as those discussed above.

C. Government Secondary Hospital (G2)

G2 Hospital does not have existing documentation as to the kinds and functions of its quality control committees. However, based on interviews, it appears that the hospital has at least a therapeutic committee.

D. Private Secondary Hospital (P2)

P2 Hospital does not adopt any of the medical quality control systems. The medical director does not even take a look at the patient charts to see how the patients are managed from day to day. Neither are there medical audits. The resident physicians are given full autonomy in the management of patients despite their short stint in the hospital. House cases which are complicated are referred to visiting consultants. Thereafter, the medical director and her resident physicians maintain a "hands-off" policy with these cases which are now under the full control of the consultant. It should be noted that only a few of these visiting consultants are duly accredited with their respective specialty boards.

The only plausible explanation that may be given for the non-adoption of quality control systems is the fact that the medical director is a general practitioner and that her resident physicians may be better trained than she is with respect to certain cases. Consequently, she may not be duly capable to audit the cases at hand.

As will be discussed in a later chapter in this report government hospitals generally suffer from lower technical performance and patient satisfaction compared with the private hospital. One of the possible reasons for this is the relative inability of the government hospitals to use quality control systems to provide high quality levels of service as indicated by the observations made in previous studies and the present case studies. This may again depend on the nature of leadership that may exist in these hospitals. A good leader should be able to extract from his staff the commitment needed to bring about quality service. It may only be under extremely severe scarcity of resources that quality could suffer. Proponents of total quality management would posit that total quality should mean being able to produce more output with less input.

3.6.2 Financial Control

An important aspect of the financial viability of a hospital is its capability to control its financial resources. Financial control is done through budgets and procedures.

Alcaraz (1991 p. 65) observes that "formal cost accounting and control systems have recently become an integral part of hospital management, especially those engaging in cost containment and improvement measures for their internal operations, in light of the economic crisis." Responsibility centers are classified into either profit or cost centers. Thus, ancillary services, pharmacy, private and suite rooms, laboratory services, radiology, and training center are classified as profit centers; while dietary, nursing services, room and board for semi-pay and service wards, high technology facilities and equipment, linen and laundry, janitorial and maintenance services, engineering services and intensive care units are cost centers.

In the study of Talledo (1988) of the internal control systems of private secondary general hospitals it was pointed out that many of the hospitals observed were managed by husband and

wife teams who "were not particularly aware of proper internal control measures" (p.60). It was observed that no particular person was assigned to perform the purchasing function. Canvassing and obtaining competitive bids had not been observed. Purchases were made even without the benefit of approval of an authorized official. Unplanned purchases tended to overlook some important items while other items were bought in excess. Discrepancies between invoices and items received were not reported immediately because no particular person was assigned to this function.

Talledo also observes that accounts receivables were not aged. Cash was also mishandled. For example, due to the absence of a check signatory, disbursements were made from daily collections, thus collections were not deposited intact.

In a study of the management control and information system of a university hospital Juliano (1974) observes that although there is a wealth of reports and data available, these reports have not been utilized for purposes of control.

Other hospitals though have tried to avail of financial tools in managing their affairs. Yap (1976) has developed for the St. Paul's Hospital of Tacloban a budgetary system upon the request of the hospital authorities. Cruz and Tanalgo (1982) report the use of budgets and internal audits in the OLLH. Lantin and Palma-Fernandez (1982) report the existence of a fiscal and internal control audit unit at the Quezon City General Hospital. A similar unit is also operating at the Regional Hospital Camarines Sur as reported in Panikulam and Patron (1982).

The following are observations regarding financial controls adopted in the four case study hospitals.

A. Government Tertiary Hospital (G3)

The chief of hospital of G3 Hospital, together with the department heads (i.e., administrative officer, chief of clinics, chief nurse, and their respective section heads) makes decisions regarding cost controls and the approval of substantial purchase of supplies.

Approval of assistance to indigent cases is made by the chief of hospital together with the administrative officer and the medical social worker.

Like other government hospitals, the chief of hospital, with the assistance of the administrative officer (who, in this case, is also the budget officer) uses the approved budget as a guide for proper administration .

Budget calls are regularly made by the DOH - Central Office for the annual operations of the hospital and are also done whenever the Department of Budget and Management announces the availability of additional funds. The annual budget of the hospital is prepared two months before the start of a calendar year. The Chief of Hospital initially issues a memorandum addressed to all departments and their respective sections and the other end users to itemize and

prioritize all their needs and proposals with their corresponding costs. These are then collated by the budget committee which is composed of the chief of hospital, as chairman, the administrative officer, the chief of clinics and the chief nurse as members. The aggregated annual budget proposal is then submitted by the budget committee to the DOH-Central office. Normally, by the second week of January of the following calendar year the advice for allotment is received by the chief of hospital. If the budget approved is less than the budget proposed, the budget committee calls for a reprioritization of needs by the different departments and sections; otherwise, the priority needs are accommodated as much as possible.

Delays in budget releases are rarely experienced. However, for February and March, 1993, releases were delayed for fifteen days due to budgetary constraints.

The chief of hospital confirms the existence of a problem regarding the lack of medicine by stating that one out of two prescriptions are bought by the patients outside. With 80 percent of the patients of the hospital on charity, the hospital cannot afford to issue all medicines for free. In 1992, for example, the charity medicine amounted to P1,429,319.

According to the chief of hospital, almost all medicines easily get consumed. The DOH has also been asking questions on which medicines are constantly issued. The medicines that usually have fast turnover are those that are directed to common illnesses, the 10 most common diseases, such as upper respiratory tract infection, gastrointestinal, and cardiovascular diseases. In most cases antibiotics are prescribed.

Unlike the rural health and the PHO before the devolution, G3 Hospital purchases its own medicines. These are then sold to the patients with a 10 percent mark-up to cover expenses. However, with 80 percent of its patients on charity, the chief of hospital points out that every year, the seed fund or the revolving fund gets depleted, even consuming the capital. The high prices of medicines and the hospital's volume of patients add to the problem of the depletion of the revolving fund. This fund, however, is augmented by appropriating an amount from the hospital's general funds. Every time the hospital needs to purchase medicines and the revolving fund is not sufficient, the hospital gets the amount from the MOOE funds. Because of this, the funds for the other supplies of the hospital are usually prejudiced.

B. Private Tertiary Hospital (P3)

P3 Hospital diligently uses planning processes, budgets, and other financial control systems to assure early detection of potential financial problems.

C. Government Secondary Hospital (G2)

As in other government institutions, all purchases of equipment and supplies must go through the tedious process of requisitioning, canvassing, and bidding. Thereafter, requests for allotment are approved, purchase orders are served, and the equipment and supplies are

delivered. These are duly inspected, and if found to be acceptable, a certificate of acceptance is issued.

The accounting procedures of the hospital are subject to the provisions of the internal control system outlined by the commission on audit.

Budgetary problems have forced the hospital to recycle not only office supplies but also medical supplies, including disposable gloves and disposable syringes which are sterilized using the autoclave method. In addition, the chief of hospital has issued a memorandum emphasizing that laboratory services shall only be availed of by patients and not by other individuals who use these for employment purposes.

D. Private Secondary Hospital (P2)

Other than a daily audit of the cash balance by the administrator himself, the husband and wife team does not adopt any other financial control systems. There are no budget and forecasts against which actual costs and revenues can be matched. Inventory of laboratory supplies and pharmacy supplies are not further monitored.

P2 Hospital does not have formal budgets. The administrator says, "We do not really write down our budgets as it should be done ideally. We (i.e., my wife and I) play it by ear based on the day-to-day transactions." Thus, one can see a highly informal system where investments and daily financial operations are concerned.

The financial control systems adopted in government hospitals are generally those prescribed for most government agencies. These include, bidding for purchases to assure the lowest possible cost, multi-signature requirements for purchases, etc. Being similar to most of the standard procedures in the government system, many of which are known to have been cracked and circumvented in various ways by unscrupulous individuals, they are doomed to suffer the same fate.

The lack of direct relation between costs and performance in government hospitals may have also led to the relative laxity in the use of such control systems. Private hospitals, on the other hand, are subjected to the competitive environment to ascertain that costs are properly contained in the delivery of quality patient care.

3.7 Summary

This chapter has described the goals, the decision making processes, the role of key hospital actors, and the control systems in both private and government hospitals in the Philippines.

Through a review of previous studies and the case studies of four hospitals it is noted that government and private hospitals have explicit and well communicated goals corresponding to the nature of their respective organizations.

While most of the recently established hospitals have benefitted from feasibility studies, many of the older hospitals were created without verification of their financial, social, or political future viability leading to many hospital failures and closures especially the smaller ones.

The planning exercise in government hospitals appear to be a repetitive process where current plans are simply extensions of previous year plans with those few accomplished targets being eliminated. Management expressed their frustrations in planning and not having sufficient control over the resources needed to implement their plans. In contrast, private hospital planning processes appear to be clear and effective.

Government hospital prices are determined by the central DOH and appear to be very much outdated. This has led to abuses as even those who can afford private hospital prices go to government hospitals for laboratory services and other types of services and this depletes the hospital's supplies. For the private hospitals, pricing of services is determined by costs as well as competition.

Although both government and private hospitals use similar quality control committee setups, such as medical audit, therapeutic committees, tissue committees, private hospital committees tend to take their functions more seriously, especially with the professional competition existing among private physicians.

There appears to be a need to link closely technical performance and costs in government hospitals to make the financial control systems work. General government agency financial control systems adopted by government hospitals which are known to have been circumvented in other agencies tend to suffer the same fate in the government hospitals.

There appears to be a general need for leadership training of present and prospective chiefs of hospitals if they are to effectively extract commitment for a cost contained delivery of quality patient care from their staff. Ways to expose the government hospitals to market forces should also be carefully explored to bring about increases in efficiency and effectiveness in their system of delivery of services.

CHAPTER 4

TECHNICAL PERFORMANCE OF PHILIPPINE HOSPITALS

This chapter looks into how well Philippine hospitals have fared in providing quality health care to their respective constituencies. The measures of technical performance used here are, bed occupancy rates, death and recovery rates, and average number of days of patient stay in the hospital. The first section of this chapter deals with the concept of hospital performance evaluation. The second, third, and fourth sections deal with the performance of Philippine hospitals, including the four case study hospitals.

4.1 Conceptual Background of Hospital Performance Evaluation

In a review of approaches in evaluating hospitals, the Commonwealth Department of Health in Canberra, Australia (1981, pp.6-27) discusses, among others, the structure, process, and outcome approach based on Donabedian's model of evaluation of quality of care.

Structure refers to the features of hospitals which include:

- (1) Size and complexity
- (2) Number and range of departments
- (3) Physical facilities
- (4) Equipment
- (5) Staffing structure and size
- (6) Qualifications of personnel
- (7) Administrative structure
- (8) Information systems
- (9) Financial organization

In this regard the Philippine Department of Health has set standards for licensing hospitals. The standards are for the required manpower (quality and quantity) and facilities and equipment of primary, secondary and tertiary hospitals. Thus, a hospital's structure can be evaluated by comparing its inputs (e.g. manpower, facilities) against the standards set by D.O.H..

Process is concerned with the functioning of the hospitals. Examples of the measures of process are as follows:

- (1) administration and discharge statistics
- (2) utilization rates for specific procedures
- (3) utilization rates of certain laboratory and diagnostic procedures
- (4) referral rates and patterns
- (5) autopsy rates
- (6) average length of stay by diagnosis

Outcome deals with the end product of hospital care in terms of the effects on the patient, such as recovery, restoration of function, and survival. The following are examples of outcome measures:

- (1) infection rates
- (2) occurrence of iatrogenic diseases
- (3) extent of return to normal function
- (4) length of time for return to work
- (5) life expectancy after hospitalization
- (6) case fatality rates
- (7) operative mortality rates
- (8) complications following surgery
- (9) readmission rates

One important aspect of outcome is patient satisfaction. Patients are asked to give their own views on the adequacy of care they obtained and their assessment of the success or failure of the treatment.

In the Philippines, hospital performance indicators (Tadiar, 1985) range from measures of utilization (e.g., bed occupancy rate which is a process measure) to measures of quality of patient care (e.g., gross and net death rates which are outcome measures).

Galsim et.al. (1992, pp. 27-29) demonstrate how some of the indicators can be used to compare the performance of hospitals within a province of a particular region in the country. These indicators are also utilized in managerial planning and decision-making.

Solon et al. (1991, Vol. I, 1991, p.48) cite the efforts of the D.O.H. in developing a management information system. The Bureau of Licensing and Regulation has long used its Form 4A which contains hospital statistics. Every hospital, government as well as private, is required to submit quarterly and annual reports. Form 4A includes:

- (1) bed capacity and occupancy
- (2) recapitulation of patients (e.g., total admission/discharges, average length of hospitalization)
- (3) discharges (type of service, effectiveness of treatment, causes of discharges, number of deaths)
- (4) fatal deaths
- (5) surgical operations
- (6) rehydration activities
- (7) outpatient services (number, services rendered, leading causes)
- (8) other hospital services (prescriptions filled, x-rays done, laboratory exams made)
- (9) dietary services
- (10) training activities
- (11) other activities (ambulance calls/conduction, autopsies, medico-legal cases)

- (12) personnel analysis (authorized vs. actual number by type)
- (13) financial statement (income and expenditures)

Solon et al. (1991, Vol.II, 1991, Health Facilities Section) have compiled the above data, by region, for specific years. These are shown in Tables 4.1 to 4.11 and discussed below.

4.2 Occupancy Rates of Philippine Hospitals

The bed occupancy rate, as an indicator of hospital performance, is similar in nature to a hotel's occupancy rate or the volume of sales for a manufacturing firm as indicators of their performance in the market. If viewed in the context of market competition, bed occupancy rates may indicate the degree of acceptability of the hospital's services to the consumers in their catchment area. On the other hand, from a capacity context, bed occupancy rate may indicate adequacy of the number of beds in the catchment area.

Table 4.1 shows the average occupancy rates of DOH hospitals from 1989 to 1991. Among the different regions, region XII hospitals had the highest average occupancy rate at 95.3 percent, while region VIII had the lowest at 64.8 percent. We note from Table 1.3 that region VIII had one of the highest ratios of main health center to population, at 1:20,633 in 1989, which may logically explain its low occupancy rate. Among the regional hospitals, region VII had the lowest occupancy rate at 66.4 percent. The highest was region X at 110.5 percent. For DOH district hospitals, on the other hand, region VIII was at the tail end at 64.6 percent, consistent with the general regional rankings, while NCR was leading at 119.4 percent. Region VII district hospitals averaged 87.8 in occupancy rates. It is interesting to note that medicare hospitals in region IX had occupancy rates of 153.8 percent while region VI had 132.7 percent.

Table 4.2 shows that 30.5 percent of DOH hospitals had occupancy rates at less than 65 percent in 1989, while 38.1 percent exceeded the 85 percent occupancy rate.

Figure 4.1 shows a comparison of the occupancy rates of the four hospitals included in this study.

A. Government Tertiary Hospital (G3)

We may recall that G3 Hospital is a tertiary hospital with an authorized 200-bed capacity: however, the actual capacity is 220. Based on the authorized bed capacity, occupancy rates were at 89.24 percent in 1988, 88.50 percent in 1989, 86.19 percent in 1990, 82.83 percent in 1991 and 60.40 percent in 1992.

The decreasing occupancy rate may be attributed to the competition posed by the private hospitals and the deteriorating equipment of the hospital.

TABLE 4.1
AVERAGE OCCUPANCY RATE OF DOH HOSPITALS, BY CATEGORY
AND BY REGION, PHILIPPINES, 1989/1
 (% of actual bed days)

REGION	ALL HOSPITALS	MUNICIPAL HOSPITALS	MEDICARE HOSPITALS	DISTRICT HOSPITALS	PROVINCIAL HOSPITALS	REGIONAL HOSPITALS	MEDICAL CENTERS	SPECIALTY HOSPITALS	SPECIAL HOSPITALS
I	74.8		47.2	79.4	83.7	89.1			
II	73.2	86.8	72.0	73.6	49.3	84.1			
III	87.6	92.1	68.1	85.8	117.8	65.2	96.7		
IV	76.4	82.1	41.4	80.1	79.9	98.5			
V	79.0	86.2	62.4	75.7	90.1	80.6			
VI	93.1	86.2	132.7	93.4	89.6	87.6	68.9		
VII	89.0	111.4	98.6	87.8	84.9	66.4/2	84.8		
VIII	64.8	46.9	48.7	64.6	63.7	99.3			
IX	88.7	46.6	153.8	78.1	91.0	74.4			
X	84.0	73.1	79.4	71.0	82.9	110.5			
XI	78.2	86.4	43.2	82.4	81.6	78.3	97.5		
XII	95.3	141.3	94.6	75.8	73.7	91.0			
NCR	81.3			119.4			84.8	68.2	54.0
CAR	75.0		52.7	67.0	80.9		99.7		
TOTAL	81.5	85.4	76.5	81.3	82.2	85.4	88.7	68.2	54.0

1/ Includes only reporting DOH hospitals as in Table 3.5 on actual bed capacity

2/ Re-computed from source table. Source table average includes hospitals with no available data on bed capacity.

Source: Hospital Operations and Management Service, DOH

From: Solon (1991), Health Sector Financing in the Philippines, Vol. II, RTH/UPSE.

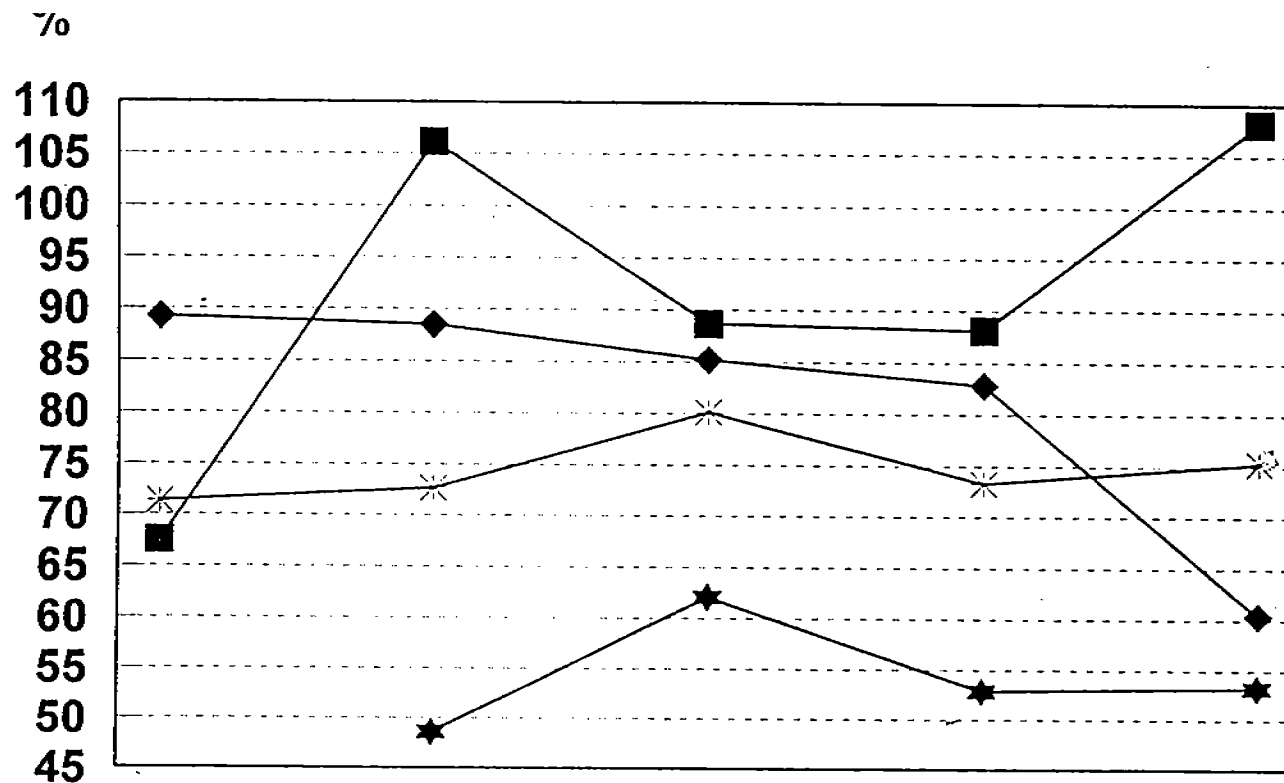
TABLE 4.2
FREQUENCY DISTRIBUTION OF
OCCUPANCY RATES OF DOH HOSPITALS, 1989

Occupancy Rate	No. of Hospitals	%
Less than 65%	133	30.5%
65 - 74%	69	15.8%
75 - 84%	68	15.6%
85 - 94%	61	14.0%
95% and above	105	24.1%

Source of basic data: HOMS, Department of Health

From: Solon (1991), Health Sector Financing in the Philippines, Vol. II, RTI/UPSE.

FIGURE 4.1
BED OCCUPANCY RATES



Bed Occupancy Rates	1988	1989	1990	1991	1992
P3 Hospital ■	67.56	106.19	88.67	88.11	108.17
G3 Hospital ◆	89.24	88.50	85.19	82.83	60.40
P2 Hospital *	71.39	72.66	80.15	73.32	75.35
G2 Hospital ★		48.64	62.13	52.91	53.25

Source: Hospital Statistical Reports

B. Private Tertiary Hospital (P3)

P3 Hospital operates as a private tertiary hospital with an authorized 100-bed capacity. Occupancy rates were 67.56 percent in 1988, 106.19 percent in 1989, 88.67 percent in 1990, 88.11 percent in 1991, and 108.17 percent in 1992. There is an increasing trend in the occupancy rate, with an unusual surge noted in 1989 and in 1992. The latter phenomenon was attributed to the outbreak of the typhoid epidemic in 1989 and the dengue epidemic in 1992.

In 1988 P3 Hospital embarked on a program to acquire the latest equipment. This enhanced the hospital's occupancy rate level. It was observed that the hospital became one of the top choices not only of patients who demanded a high quality of patient management but also of accredited medical specialists and/or consultants who brought a significant percentage of patients, most of whom belonged to the A-B income class.

The hospital is also known to be the cleanest in the community. High standards of cleanliness and sanitation are met and maintained by the hospital staff in all areas of the hospital. Strict adherence to these rules has elicited from its patients, rich and poor alike, a high degree of satisfaction.

The administration also concerns itself with the spiritual and emotional well-being of its patients. The administrator or the administration counsel conducts regular visits and pastoral work among the patients.

C. Government Secondary Hospital (G2)

The authorized and actual bed capacity of G2 Hospital is 75. Bed allocation is as follows:

Service Patients	80%
Medicare Patients	10%
Pay Patients	10%

Based on the authorized bed capacity, occupancy rates were 48.64 percent in 1989, 62.13 percent in 1990, 52.91 percent in 1991, and 55.25 percent in 1992. Relatively low occupancy rates were attributed to the unusually high volume patient out-referrals to other hospitals, clinics and health facilities in Metro Cebu vis-a-vis in-referrals from rural health units (RHUs) and other feeders of patients.

The proximity of the catchment area to the better-equipped tertiary hospitals in Metro Cebu also contributes to the low occupancy rates, with more and more patients requesting admission to other hospitals. While most patients regard the hospital as clean, they complain of the lack of medicine and supplies, lack of skills of the medical staff, and the lack of basic equipment. The hospital's ECG and X-Ray machines have been out of order for several months

already. These inadequacies have led to a perception of poor quality of service by its constituencies.

It was also claimed by the hospital staff that preventive management at the catchment area has been quite extensive. In fact, the primary goal of the hospital is the prevention of illnesses through intensive information campaigns. Supervision by the hospital staff of the rural health units (RHUs) in the catchment area is extensive. Lectures on topics such as environmental sanitation, breast-feeding and baby care are held regularly. Likewise, at the hospital site, classes for mothers of the under five clinic are held. The hospital is also acknowledged as a baby-friendly hospital. The morbidity and mortality data for the catchment area, however, do not show any significant decline.

D. Private Secondary Hospital (P2)

P2 Hospital has an authorized bed capacity of twenty-nine (29), however, the actual capacity is thirty-six (36). At certain times of the year, especially during the outbreak of influenza and other epidemics, the daily census sometimes reached more than 29. These figures prompted the owners to add more beds to the authorized capacity of the hospital.

Based on the authorized bed capacity, occupancy rates were 71.39 percent in 1988, 72.66 percent in 1989, 80.15 percent in 1990, 73.32 percent in 1991, and 75.35 percent in 1992.

Compared to its neighbor, G3 Hospital, P2 Hospital had a lower occupancy rate, except for 1992. This may be attributed to the fact that P2 Hospital had only 3 medical specialists who were not even accredited. It is noted that many of the hospital's Ob-gynecology and radiology cases are referred to G3 Hospital whose departments are duly accredited.

Despite the aforementioned inadequacies of P2 Hospital, many patients still prefer it over the nearby G3 Hospital. Patients have indicated that the hospital provides a better quality of patient care, given a hospital staff who are more approachable and responsive. Moreover, the hospital has an adequate supply of medicines and other supplies, thus, giving its patients better medical services. It is also noted that the hospital's premises are cleaner compared to G3 Hospital.

Comparison of Bed Occupancy Rates

It can be initially gleaned that private hospitals have higher occupancy rates than their government counterparts of the same category. This general observation can be attributed to the fact that private hospitals are better equipped, have adequate medical supplies, and provide a perceived higher quality of patient care/patient management. Moreover, the administration and leadership of these hospitals demand that the standards of cleanliness and efficient service be strictly adhered to by its staff.

However, an exception may be made in 1988 during which time it is indicated that G3 Hospital had a higher occupancy rate than P3 Hospital. In this period, the competitive

environment in P3 Hospital's location must be taken into consideration. In 1988, Cebu Doctors' Hospital and Chong Hua Hospital, which may be considered as P3 Hospital's primary competitors, were better equipped and more competitive. In fact, these two hospitals have been upstaging each other in terms of equipment and medical skills. The prominent accredited medical specialists and/or consultants in Cebu established their offices/clinics in either one or in both of these hospitals. In the same year, P3 Hospital started to embark on a renovation, expansion, and modernization program. Consistency of P3 Hospital's objective of providing a very high quality of patient care and its acquisition of many of the latest medical equipment attracted patients and medical specialists.

On the other hand, it is noted that G3 Hospital is the only hospital in the area which has at least two accredited departments (i.e., the ob-gynecology and radiology departments) and has a greater number of medical specialists/consultants than other hospitals in its area. G3 Hospital also pays higher salaries to its medical specialists than its private counterparts in the province. In 1988, the situation contributed to a higher occupancy rate with the surrounding private hospitals referring complicated cases to G3 Hospital's pool of medical specialists. However, the succeeding years saw an unfavorable reversal in the trend. G3 Hospital could no longer sustain the competitive advantage it held in terms of medical skills alone. Besetting budgetary problems during the succeeding years and up to the present have had crippling effects on the occupancy rate. Other debilitating factors include critical shortage of medicines and other medical supplies, poor maintenance of outdated equipment and facilities (or even its absence) and inability to purchase even the basic diagnostic equipment to replace those which are often out of order.

The trend worsened in 1992 as occupancy rate dipped to a critical level of 60.40 percent from 82.83 percent in 1991 (i.e., a decrease of approximately 27 percent). By this time, its outdated X-ray machine had broken down, which, up to the writing of this report, has not yet been repaired due to budgetary constraints. It is observed that in the same year, the second leading cause for hospitalization/admission at G3 Hospital was pneumonia which requires the intensive use of an X-ray machine. It may be inferred that many of these cases may have been referred to and eventually treated in the other hospitals which have latter model X-ray machines. The provincial media had exposed the glaring deficiency and had aggravated the worsening reputation of G3 Hospital. The loss of the medical staff's trust and confidence in the leadership of the hospital also adversely affected the occupancy rate. A very low morale prevailed throughout the organization and led to high incidence of absenteeism and inefficient service by its medical staff. Patients who complained of these inadequacies eventually transferred to nearby private hospitals for better accommodations and higher quality of patient care.

On the other hand, a significant percentage of G3 Hospital's potential clientele may have been brought to other hospitals by its own salaried medical specialists who had sought private practice after office hours to augment their incomes.

A similar dismal scenario regarding occupancy rates can be observed at G2 Hospital, a secondary government hospital in one of the city components of Metro Cebu. Budgetary constraints have led to a critical shortage of medicines and other medical supplies, poor maintenance of outdated facilities and equipment, and inability to purchase even basic

diagnostic equipment or spare parts for its basic equipment. For example, the hospital's X-ray machine and ECG have been out of order since May, 1992.

The proximity to tertiary hospitals in Metro Cebu contributed to a decline in occupancy rate of G2 Hospital. For instance, the outbreak of dengue fever in 1992 led to only a very slight increase in occupancy rate (i.e., from 52.91 percent in 1991 to 55.25 percent in 1992). A significant percentage of the dengue cases were referred to the tertiary hospitals in Metro Cebu.

However, unlike G3 Hospital, the leadership of G2 Hospital has earned the trust and confidence of the hospital staff. Morale was relatively high until the implementation of the devolution provisions of the Local Government Code.

A comparative analysis over a five-year period indicate that the two private hospitals (i.e., P3 Hospital, a tertiary hospital in Metro Cebu, and P2 Hospital, a secondary hospital in an agro-industrial city) maintained an increasing trend in their occupancy rates. In the case of P3 Hospital, it has continually been one of the top preferences among patients, both from the A-B income class and the C-D income class. The hospital is reputed to be the cleanest in the area and is particularly known for its high quality of patient care and efficient service. Moreover, its continued technology upgrading program through the acquisition of state-of-the-art equipment for its different clinical departments has put it at par with the two leading private hospitals in the area.

The religious group running P3 Hospital provides a very strong moral leadership to the hospital staff. Interviews conducted at random among the medical and non-medical staff point to the fact that morale in the organization is very high. The staff have stressed that they are given high salaries by the sisters. Moreover, the leadership has consistently emphasized a total development program for its employees. Apparently, the high sense of well-being of the hospital staff has led to a high quality of patient care and efficient service. The administration has also cited that P3 is the only hospital in the metropolis "where doctors/medical specialists do not shout at the nurses."

In the case of P2 Hospital, it has also become one of the top preferences of more and more patients who demand a clean environment, relatively better patient care, better room facilities/accommodations, and better equipment. With regards to the latter, the owners of the hospital have acquired additional equipment, at par with tertiary hospitals, to keep up with its competitors. Thus, while complicated cases of the hospital are referred to medical specialists at G3 Hospital, the patients still choose to remain at P2 Hospital. This gave impetus to the salaried medical specialists of G3 Hospital to request permission to engage in private practice after office hours, which was duly granted by the administration of G3 Hospital.

P2 Hospital has seventeen visiting consultants from the nearby G3 Hospital who have brought in more and more patients to the former. In fact, two of these consultants have their private clinics/offices at P2 Hospital. The practice has enhanced the occupancy rate of the hospital to the point that the owners have recently expanded the hospital premises. They have also thought of renting out more office space as private clinics for the visiting consultants.

4.3 Effectiveness of Treatment of Philippine Hospitals

In terms of the effectiveness of treatment of DOH hospitals, MCH (Medicare hospitals) had the highest percentage of patients improved/recovered at 97.8 percent while specialty hospitals had the lowest at 58.8 percent. This reflects the tendency for more serious/advanced cases to be brought for treatment to specialty hospitals, while medicare insurance coverage may prompt the insured to readily seek hospital admission. This figure is at 86.8 percent for municipal hospitals and improves to 91.1 percent for district hospitals and further improves to 92.0 percent for provincial hospitals but drops to 89.9 percent in regional hospitals. Better facilities and a greater number of physicians (as suggested below) may explain the improvements in performance from district to provincial hospitals. However, relatively more advanced cases may prevail in regional hospitals, thus its lower average performance.

In terms of net mortality rates among the four political levels of hospitals, regional hospitals have the highest at 2.35 percent. This figure progressively declines as we go down to the municipal hospital level at .89 percent. The relatively lower recovery rates and higher net mortality rates in regional hospitals suggest that serious cases are taken to this level.

In Table 4.5 we see that Medicare hospitals have the lowest doctors to bed and nurses to bed ratios. The doctors to bed ratio is twice higher in regional hospitals than in district hospitals. A similar pattern is also observed in nurses to bed ratios. There are 4 beds to every nurse in district hospitals while there are only 3 in regional hospitals. Municipal hospital patients are better served with only 2 beds to a nurse.

Table 4.6 can be viewed as the ratio of medical staff support for each physician in the three different levels of hospital care, or alternatively, as the number of physicians among the medical staff. The second view suggests substitution between physician and other medical staff. Whichever view we take, the statistics show that there are more physicians in the medical staff of higher levels of care than of lower levels. Similar observations and interpretations can be made regarding physicians and non-medical staff support from Table 4.7. The higher ratio of physicians may explain the higher level of performance of larger hospitals.

A. Government Tertiary Hospital (G3)

The percentage of patients improved/recovered in G3 Hospital was 97 percent of total discharges (Table 4.8) from 1988 to 1990, down to 90 percent in 1991, and further declined to 89 percent in 1992. Table 4.3 shows that in 1989 the percentage of patients recovered for regional hospitals was 89.9 percent.

The net mortality rate (Table 4.9) fluctuated from 3.0 percent in 1988 to 2.6 percent in 1989, 3.7 percent in 1990, 3.8 percent in 1991, then to 4.0 percent in 1992. The average mortality rate for regional hospitals in 1989 (Table 3.3) was 2.35 percent. Table 4.9 shows that in G3 Hospital medical, surgical (adults), and pediatrics are the three departments with the highest

TABLE 4.3
EFFECTIVENESS OF TREATMENT, DOH HOSPITALS, 1989

	% of Patients Improved/ Recovered, 1989 (% of discharges)	Net Mortality Rate, 1989/1
M C H	97.80%	0.41%
Municipal Hospitals	86.80%	0.89%
Distric Hospitals	91.10%	1.22%
Provincial Hospitals	92.00%	1.67%
Regional Hospitals	89.90%	2.35%
Medical Centers	90.90%	2.75%
Special Hospitals	93.60%	1.70%
Specialty Hospitals	58.80%	4.38%

*// Computed (Deaths - Death of 48-hr. patients)
 (Discharges - Death of 48-hr. patients)*

Source of basic data: HOMS, Department of Health

TABLE 4.4
**Ratio of Medical Staff to Non-Medical Staff of DOH Hospitals
 by Region and by Type of Hospital, 1989**

REGION	PRIMARY	SECONDARY	TERTIARY
1	1:1	1:1	1:2
2	1:1	1:1	1:3
3	1:1	1:1	1:2
4	1:1	1:1	1:2
5	1:1	1:2	1:3
6	1:1	1:1	1:3
7	1:1	1:1	1:2
8	1:1	1:1	1:3
9	1:2	1:1	1:2
10	1:1	1:1	1:3
11	1:1	1:1	1:2
12	1:1	1:1	1:2
CAR	1:1	1:2	1:2
NCR		1:1	1:2

Source of basic data: HOMS - DOH

From: Solon (1991), Health Sector Financing in the Philippines, Vol. II, RTI/UPSE.

TABLE 4.5
MANPOWER TO BED RATIOS, DOH HOSPITALS, 1990

TYPE OF HOSPITAL	DOCTORS TO BED RATIO	NURSE TO BED RATIO
Special Hospital	1:4	1:3
Specialty Hospitals	1:5	1:1
Medical Centers	1:2	1:2
Regional Hospitals	1:3	1:3
Provincial Hospitals	1:5	1:4
District Hospitals	1:6	1:4
M C H	1:9	1:5
Municipal Hospitals	1:6	1:2
PERSONNEL TO BED RATIO = 1.4:1		
Regional Hospitals		
Medical Specialist to Bed Ratio	1:7	
Resident Physician to Bed Ratio =	1:5	
Medical Centers :		
Medical Specialist to Bed Ratio	1:5	
Resident Physician to Bed Ratio =	1:5	

Source of basic data: HOMS, DOH

TABLE 4.6
Ratio of Physician to Medical Staff in DOH Hospitals
by Region and By Type of Hospital, 1989

REGION	PRIMARY	SECONDARY	TERTIARY
1	1:4	1:3	1:2
2	1:4	1:3	1:2
3	1:4	1:3	1:2
4	1:4	1:3	1:2
5	1:4	1:4	1:2
6	1:4	1:3	1:3
7	1:4	1:3	1:2
8	1:4	1:4	1:2
9	1:4	1:4	1:2
10	1:4	1:3	1:2
11	1:3	1:3	1:2
12	1:5	1:1	1:2
CAR/1	1:5	1:2	1:2
NCR	-	1:3	1:3

1/ CAR - Cordillera Autonomous Region

Source of basic data: HOMS - DOH

TABLE 4.7
RATIO OF PHYSICIANS TO NON-MEDICAL STAFF IN DOH HOSPITALS
BY REGION AND BY TYPE OF HOSPITAL, 1989

REGION	PRIMARY	SECONDARY	TERTIARY
1	1:4	1:3	1:2
2	1:4	1:4	1:3
3	1:5	1:4	1:2
4	1:4	1:4	1:2
5	1:6	1:6	1:3
6	1:3	1:4	1:3
7	1:3	1:4	1:2
8	1:4	1:4	1:3
9	1:6	1:5	1:2
10	1:5	1:4	1:3
11	1:4	1:4	1:2
12	1:4	1:1	1:2
CAR/1	1:6	1:4	1:2
NCR	-	1:5	1:2

Source of basic data: HOMS - DOH

mortality cases, with an increasing trend in the medical and pediatric areas. Probable reasons surrounding these circumstances are lack of equipment/facilities necessary to treat and/or to diagnose even simple as well as complicated cases, lack of specialized medical skills and low quality nursing care.

The hospital has only two diagnostic machines: the 150 MA X-ray machine and ECG machine. A major problem faced by the hospital is the breakdown of the X-ray machine. This has been out of order since November, 1992 and funding for its repair has not yet been granted.

It is further noted that only the hospital's departments of radiology and obstetrics are duly accredited with the specialty boards. This is indicative of the inadequacy of medical skills as per the standards set forth by the accreditation system. This is common to all the government and private hospitals in the province.

The very low employee morale, which has been attributed to the very slow follow-up of the investigation of their lost payroll for the period May 1-15, 1992, has its ill effects on the delivery of quality patient care. Absenteeism is rampant with some employees going on leave despite the shortage of manpower or the large volume of work to be done.

The few patients who can afford, request for transfer to private hospitals in the area or to Cebu. The less fortunate majority (i.e., the charity patients) are left with very limited options.

B. Private Tertiary Hospital (P3)

Except for 1988 the data in the statistical report submitted by P3 Hospital on the number of patients who recovered/improved appear to be erroneous. The number of patients who died also appear erroneous. What can be made out from the available data is that the percentage of patients who recovered in 1988 was quite low, however, P3 Hospital in that year was still in the process of building up its capability. Overall death rates started to decline to after 1988.

C. Government Secondary Hospital (G2)

The percentage of patients who improved/recovered in G2 Hospital was 87.5 percent of total discharges (see Table 4.12) in 1989, 86.7 percent in 1990, 84.5 percent in 1991, and 81.7 percent in 1992. The net mortality rate was 2 percent from 1989 to 1992. Table 4.13 indicates that medical and pediatrics have the highest mortality cases. Similar observations can be made with the government hospital above, G3 Hospital. Perhaps, one can attribute this to the lack of equipment and facilities and the lack of skills in the treatment of simple as well as complicated cases in these areas.

TABLE 4.8
PERCENTAGE RECOVERED BY SERVICE
G 3 HOSPITAL

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Type of Service	%	%	%	%	%
Medical	92.47%	92.39%	92.15%	91.01%	81.90%
Surgical Pediatric	97.21%	96.58%	96.67%	98.07%	85.14%
Surgical Adult	96.60%	96.04%	91.67%	94.32%	83.42%
Obstetrics	99.62%	99.33%	99.46%	92.69%	98.43%
Gynecology	99.38%	98.83%	97.80%	96.42%	91.14%
Pediatrics	97.43%	97.66%	94.94%	97.42%	89.72%
Newborn (Alive)	98.23%	98.88%	103.60%	98.49%	97.53%
Genito-Urinary	97.68%	97.49%	94.99%	95.26%	90.94%
EENT	99.21%	100.00%	98.15%	97.26%	85.92%
Others (Dental)	50.00%	100.00%	400.00%	100.00%	
TOTAL	96.72%	96.68%	96.30%	95.08%	89.54%

Source: Hospital Statistical Reports

**TABLE 4.9
DEATH RATES BY SERVICE
G 3 HOSPITAL**

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Type of Service	%	%	%	%	%
Medical	7.50%	7.51%	7.85%	8.54%	8.09%
Surgical Pediatric	2.79%	3.42%	3.33%	1.93%	5.43%
Surgical Adult	3.40%	9.96%	5.99%	6.09%	5.53%
Obstetrics	0.38%	0.67%	0.54%	0.89%	0.56%
Gynecology	0.62%	1.17%	2.20%	4.77%	1.17%
Pediatrics	2.57%	0.29%	3.06%	2.42%	3.25%
Newborn (Alive)	0.00%	0.73%	0.00%	1.26%	2.41%
Genito-Urinary	2.32%	0.00%	5.01%	4.06%	1.48%
EENT	0.79%	0.00%	0.00%	0.00%	2.82%
Others (Dental)	0.00%	0.00%	0.00%	0.00%	
TOTAL	3.05%	2.56%	3.84%	3.84%	3.97%

Source: Hospital Statistical Reports

D. Private Secondary Hospital (P2)

Table 4.14 shows high percentages of patients who recovered in P2 Hospital for the years 1988 to 1992. Table 4.15, likewise shows low death rates. This may be explained by the fact that P2 Hospital may be perceived as having a low level of treatment capability, thus patients in serious medical condition were probably brought to nearby tertiary level hospitals.

It is interesting to note though that death rates are positive only in the medical, pediatric and newborn services. The newborn death rates in P2 hospital appear to be unusually high compared to the rates in other three hospitals.

4.4 Patient Length of Stay

A comparison of the average length of stay of patients in the four hospitals, as they are presented in Tables 4.16 to 4.19, indicates a number of interesting results. Between a government tertiary and a private tertiary hospital, for example, the government hospital has a higher figure than the private hospital. Although one might be inclined to say that profit motives would push private hospitals into keeping patients longer, the government hospital may be treating indigent patients whose recovery may be jeopardized if they are sent home prematurely, while high income patients may have the capability for normal recovery under home care. Higher occupancy rates in private hospitals may provide the impetus for a faster patient turnover, while the lower occupancy rates in government hospitals could tolerate the longer stay of patients.

Similar observations can be made with the secondary hospitals (Tables 4.18 and 4.19), except for a longer stay in the surgical (adult) service in P2 Hospital than in G2 Hospital. We may note, however, that G2 Hospital tends to refer advanced cases to other hospitals in Metro Cebu for various reasons which are discussed under the section on referrals. P2 Hospital, on the other hand, has developed surgical capabilities.

4.5 Summary

This chapter compared the technical performance of hospitals with different ownership status, nature of economic activities in its surroundings, and size, using bed occupancy rates, recovery and death rates, and length of patient stay as indicators.

Bed occupancy rates tend to be higher in private than in government hospitals, possibly indicating a greater degree of preference for the former than the latter, despite lower prices in government hospitals. Between the two private hospitals covered in the case study, the tertiary

**TABLE 4.11
DEATH RATES BY SERVICE
P3 HOSPITAL**

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Type of Service	%	%	%	%	%
Medical					3.74%
Surgical Pediatric					
Surgical Adult					0.20%
Obstetrics					0.00%
Gynecology					
Pediatrics					1.29%
Newborn (Alive)					0.38%
Genito-Urinary					
EENT					
Others (Dental)					
TOTAL	2.23%	0.76%	1.85%	1.76%	1.90%

Source: Hospital Statistical Reports

**TABLE 4.12
PERCENTAGE RECOVERED BY SERVICE
G2 HOSPITAL**

Type of Service	<u>1988</u> %	<u>1989</u> %	<u>1990</u> %	<u>1991</u> %	<u>1992</u> %
Medical		81.79%	83.21%	80.78%	77.16%
Surgical Pediatric		88.89%	88.37%	94.44%	100.00%
Surgical Adult		91.75%	90.49%	91.05%	93.88%
Obstetrics		92.66%	92.26%	89.46%	90.10%
Gynecology		93.50%	89.55%	90.91%	84.31%
Pediatrics		83.76%	83.14%	79.69%	76.64%
Newborn (Alive)		97.47%	97.56%	94.47%	92.26%
Genito-Urinary		91.80%	84.87%	87.50%	79.57%
EENT		91.80%	84.31%	89.13%	67.86%
Others (Dental)		33.33%	87.50%	87.50%	85.71%
(Neuro)		50.00%	0.00%	50.00%	
TOTAL		87.50%	86.70%	84.51%	81.70%

Source: Hospital Statistical Reports

**TABLE 4.13
DEATH RATES BY SERVICE
G2 HOSPITAL**

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Type of Service	%	%	%	%	%
Medical		2.64%	2.75%	1.99%	2.08%
Surgical Pediatric		2.78%	0.00%	0.00%	0.00%
Surgical Adult		0.69%	0.38%	0.31%	0.36%
Obstetrics		0.00%	0.14%	0.53%	0.28%
Gynecology		0.00%	0.00%	0.00%	0.00%
Pediatrics		3.52%	3.54%	3.75%	3.04%
Newborn (Alive)		1.05%	1.79%	2.51%	2.32%
Genito-Urinary		0.00%	0.00%	0.57%	0.00%
EENT		1.64%	1.96%	2.17%	0.00%
Others (Dental)		0.00%	0.00%	0.00%	0.00%
(Neuro)		0.00%	0.00%	50.00%	
TOTAL		2.01%	2.25%	1.96%	1.97%

Source: Hospital Statistical Reports

TABLE 4.14
PERCENTAGE RECOVERED BY SERVICE
P2 HOSPITAL

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Type of Service	%	%	%	%	%
Medical	96.31%	95.91%	96.09%	95.54%	96.16%
Surgical Pediatric	80.00%	96.00%	100.00%	100.00%	100.00%
Surgical Adult	80.00%	100.00%	93.52%	93.86%	96.15%
Obstetrics	100.00%	100.00%	100.00%	93.67%	94.12%
Gynecology	71.43%	100.00%	100.00%	100.00%	100.00%
Pediatrics	98.05%	96.66%	99.50%	99.19%	99.31%
Newborn (Alive)	100.00%	100.00%	94.87%	97.56%	100.00%
Genito-Urinary	100.00%	100.00%	100.00%	100.00%	100.00%
EENT	100.00%	100.00%	100.00%	100.00%	100.00%
Others (Dental)					
TOTAL	96.55%	98.09%	97.86%	97.64%	98.24%

Source: Hospital Statistical Reports

**TABLE 4.15
DEATH RATES BY SERVICE
P2 HOSPITAL**

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Type of Service	%	%	%	%	%
Medical	1.55%	2.91%	2.175	3.20%	2.82%
Surgical Pediatric	0.00%	0.00%	0.00%	0.00%	0.00%
Surgical Adult	0.00%	0.00%	0.00%	0.00%	0.00%
Obstetrics	0.00%	0.00%	0.00%	0.00%	0.00%
Gynecology	0.00%	0.00%	0.00%	0.00%	0.00%
Pediatrics	0.32%	0.34%	0.10%	0.12%	0.00%
Newborn (Alive)	0.00%	0.00%	5.13%	2.44%	4.65%
Genito-Urinary	0.00%	0.00%	0.00%	0.00%	0.00%
EENT	0.00%	0.00%	0.00%	0.00%	0.00%
Others (Dental) (Neuro)					
TOTAL	0.78%	1.30%	1.02%	1.20%	0.99%

Source: Hospital Statistical Reports

TABLE 4.16
AVERAGE LENGTH OF STAY BY TYPE OF SERVICE
G3 HOSPITAL

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Type of Service	Average Length of Stay	Average Length of Stay	Average Length of Stay	Average Length of Stay	Average Length of Stay
Surgical Pediatric	5.8	6.5	7.4	6.8	5.9
Surgical Adult	8.7	8.0	8.2	7.9	7.0
Obstetrics	4.2	4.6	4.9	4.8	3.9
Gynecology	7.4	7.9	8.7	7.9	3.6
Pediatrics	4.1	4.0	3.8	4.2	0.3
Newborn (Alive)	1.1	1.0	1.1	1.0	1.2
Genito-Urinary	5.0	5.5	5.2	5.1	4.0
EENT	6.5	7.1	5.4	6.5	7.4
Others (Dental)	2.0	4.0	2.0	5.0	
TOTAL	4.7	4.7	4.8	4.7	3.7

Source: Hospital Statistical Reports

TABLE 4.17
AVERAGE LENGTH OF STAY BY TYPE OF SERVICE
P3 HOSPITAL

Type of Service	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Type of Service	Average Length of Stay	Average Length of Stay	Average Length of Stay	Average Length of Stay	Average Length of Stay
Medicine	4.9	5.2	4.5	4.4	4.2
Surgical Pediatric	3.2	19.4	7.0	6.1	5.8
Surgical Adult					
Obstetrics	4.0	3.0		2.9	2.8
Gynecology		2.4	3.1		
Pediatrics	4.1	3.8	2.3	3.0	3.6
Newborn (Alive)		4.0		2.4	2.8
Genito-Urinary					
EENT			1.6	9.4	
Others (Dental)			8.8	2.1	
TOTAL	3.5	6.2	3.8	3.9	3.8

Source: Hospital Statistical Reports

TABLE 4.18
AVERAGE LENGTH OF STAY BY TYPE OF SERVICE
G2 HOSPITAL

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Type of Service	Average Length of Stay	Average Length of Stay	Average Length of Stay	Average Length of Stay	Average Length of Stay
Medical		3.3	3.6	3.7	3.2
Surgical Pediatric		3.5	6.7	4.6	3.9
Surgical Adult		2.5	3.9	3.7	2.9
Obstetrics		2.1	2.2	2.7	2.4
Gynecology		2.5	2.4	2.7	2.3
Pediatrics		3.4	3.4	3.3	2.8
Newborn (Alive)		2.0	1.9	2.6	2.1
Genito-Urinary		3.1	3.1	3.3	3.2
EENT		2.9	3.2	3.0	3.4
FP (Sterilization))		1.0	1.0	1.0	1.0
Others (Dental)		2.0	2.3	2.9	3.1
TOTAL		2.8	3.1	3.2	2.7

Source: Hospital Statistical Reports

TABLE 4.19
AVERAGE LENGTH OF STAY BY TYPE OF SERVICE
P2 HOSPITAL

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Type of Service	Average Length of Stay	Average Length of Stay	Average Length of Stay	Average Length of Stay	Average Length of Stay
Medical	3.3	3.4	3.1	3.5	3.1
Surgical Pediatric	2.5	3.1	4.8	6.7	4.1
Surgical Adult	2.4	4.0	4.6	5.6	6.1
Obstetrics	2.7	2.9	2.8	2.9	3.2
Gynecology	3.2	3.3	3.3	3.9	3.1
Pediatrics	3.2	3.3	2.7	2.6	2.6
Newborn (Alive)	2.7	3.1	3.1	3.4	3.1
Genito-Urinary	2.5	2.9	3.0	2.7	2.8
EENT	2.4	2.8	6.1	2.5	2.5
Others (Dental)					
TOTAL	3.1	3.3	3.1	3.1	2.9

Source: Hospital Statistical Reports

had higher occupancy rates than the secondary hospital. This also indicates a possible preference among patients and doctors for the better facilities found in higher hospital categories.

Reported statistics show that recovery rates tend to be higher in private compared to government hospitals. Several reasons may be attempted to explain this. First, as observed, the equipment is much better in private than in government hospitals. Second, patients brought to government hospitals, who are mostly from lower income classes, may already be in advanced stages of their illnesses. There is a tendency among the low income level population to consider hospitalization as a last resort for treatment. Private hospital patients, who are mostly from higher income classes, tend to be more knowledgeable about when to avail of medical and hospital services.

Patients tend to stay longer in government than in private hospitals. Considering that discharge decisions are usually made by the attending physician, the possibility that patients in government hospitals are allowed to stay longer is due to poor home care after discharge. Low occupancy rates in government hospitals may also make the longer stay tolerable in the system.

In terms of patient satisfaction, patients were more satisfied with the service provided by the nurses and other hospital personnel in private hospitals compared to government hospitals.

The analysis of the technical performance of the various hospitals indicates the serious need for intensive and extensive management training for government hospital administrators to equip them with the managerial skills needed to provide high quality patient care under constraints of very limited resources. This training should involve the functional areas of management: operations, marketing finance, and strategy, as well as organizational leadership. An attitudinal change among hospital staff members should also be a major component of this investment in the hospitals' human resource. Hospital managers should also be equipped with skills to harness resources in the community to augment limited budgetary allocations provided by their governing units.

This managerial training should be given the highest priority. Augmenting their equipment, personnel, and other resources will be of no use if they continue to be mismanaged. In the long run they will revert to the same sad state.

As a subsequent step after management training, hospital administrators should be given a greater degree of autonomy in the various aspects of management, including fee setting, funding, and personnel policies. This empowerment should lead to significant improvements in their performance.

CHAPTER 5

FINANCIAL CHARACTERISTICS AND PERFORMANCE OF PHILIPPINE HOSPITALS

Hospitals have to follow sound financial management, whether they are for-profit or not-for-profit, if they are to remain financially viable as they attempt to deliver the highest quality of medical care in accordance with their respective missions. This chapter deals with the financial characteristics and performance of Philippine hospitals, including the four case study hospitals. The first section deals with the financial characteristics of Philippine hospitals while the second deals with their respective financial performance.

5.1 Financial Characteristics of Philippine Hospitals

The financial characteristics of an organization are determined by the nature of the industry as well as the financial decisions made by its managers. These decisions are affected, among others, by these managers' risk attitudes. The hospitals' financial statements are useful documents to start an assessment of their financial characteristics. This section looks at the sources of capital and this capital's allocation into the various asset items. We also analyze the nature of the hospitals' revenues and expenditures.

5.1.1 Capital Structure of Philippine Hospitals

The combination of debt and equity used by hospitals determines their capability to go through tough financial periods and to provide a fair return to the stockholders of stock hospitals. A large proportion of debt means large mandatory interest payments which exert greater financial pressures on the organization. However, a large proportion of debt may also mean the use of low cost funds from creditors instead of high cost equity. Thus, a large proportion of debt generally indicates aggressiveness and a low level of risk aversion of the decision maker, while low debt levels indicate conservatism of its management.

Bengzon (1972 pp. 38-41) reports that, on the average, the three private stock hospitals covered in his study had from 18 to 72 percent of their total capitalization coming from stockholders. Bengzon also notes that the controlling group in the private stock hospitals he studied were the physicians. Use of long-term debt ranged from zero to 26 percent of total capitalization, while current liabilities ranged from 27 to 61 percent. Among the current liabilities, trade related payable account for 17 to 72 percent of total assets, while the balance came from borrowing.

A similar wide range was noted by J.P. Crisostomo (1976, p. 52) in the 1974 PHA survey of hospitals, which had on average 50 percent of their assets financed through debt. In his own sample of twenty privately-owned hospitals, J.P. Crisostomo (1976 p. 68) noted variations in

debt and equity ratios which may be attributable to differences in bed capacity. The over 300-bed hospitals utilized more debt than smaller hospitals. These larger hospitals were also established at later dates relative to the smaller hospitals, pointing to the possibility that higher costs necessitated more debt.

The sources of financing of hospitals in J.P. Crisostomo's study (1976) consisted of the Development Bank of the Philippines, Government Service Insurance System, Social Security System and Philippine National Bank. Private commercial banks were noted to have limited themselves to short-term loans to cover operating needs.

In the three non-stock general hospitals, proprietors' and/or donors' funds accounted for 80 to 82 percent of total capitalization. Long-term liabilities ranged from zero to 11 percent while current liabilities ranged from 7 to 20 percent of total capitalization. Trade related current liabilities accounted for 47 to 54 percent with the balance coming from borrowing.

In consolidated financial statements of secondary hospitals, tertiary hospitals, and medical centers for 1982 to 1984 (Santos, 1987), shown in Tables 5.1, we note a debt-equity ratio ranging from a low 13 percent in secondary hospitals in 1983 to a high of 73 percent in medical centers in 1984 (Table 5.2).

Table 5.3 shows the various balance sheet accounts of P3 Hospital as a percentage of total assets. P3 Hospital, during the 5-year period under review, did not avail of any long term obligation. Its current liabilities ranged from 10.5 percent to 18.7 percent of total assets. The bulk of the current liabilities consisted of accrued expenses and accounts payable.

In Table 5.4 we note that in 1992 P2 Hospital began to avail of credit financing. In the previous years P2 Hospital was financed entirely by the equity of its physician and lawyer owners.

The independent observations of Bengzon, Crisostomo, Santos, and the two case study private hospitals tend to indicate that the capital structure of Philippine hospitals is determined by their size. The smaller hospitals tend to be financed more with owner's equity, while the larger ones resort to borrowing from development financing agencies of the government. Even short-term obligations are sparsely used and, if ever, trade credits are the ones usually availed of. Philippine hospitals can therefore be characterized as generally conservative in their capital structure decisions.

5.1.2 Allocation of Assets

Eighty to ninety percent of the capital raised by all six hospitals covered in Bengzon's study was used for the acquisition of fixed assets. Within the fixed assets category, building was allocated a substantial portion. J.P. Crisostomo (1976 p.68) also reports heavy investments in fixed assets among the twenty privately owned hospitals covered in his sample. These investments ranged from 73 to 84 percent.

TABLE 5.1
CONSOLIDATED BALANCE SHEET
1982 - 84

	1984			1983			1982
	SECONDARY	TERTIARY	MED. CENTER	SECONDARY	TERTIARY	MED. CENTER	TERTIARY
ASSETS							
CURRENT ASSETS							
CASH ON HAND	43155.60	969798.07	2711518.03	36473.91	1028470.46	1250540.87	535148.24
SHORT TERM INVESTMENT		988269.00	800000.00		166000.00	6800000.00	
ACCOUNTS RECEIVABLE		2669304.81	549864.07		1920040.78	602829.89	347183.87
MEDICARE RECEIVABLE		256199.10	120328.78		44744.35	146362.59	
ADVANCES TO OFFICERS		432369.49	1663003.80		432369.49	7454.64	
INVENTORIES		5513793.72	3530603.81		4197770.41	83910.45	135719.36
ACCOUNTS RECEIVABLE-OTHERS		393635.04	246751.77		199864.04	136160.05	
PREPAID EXPENSES		366479.00	121222.01		220765.00	86826.65	10012.62
OTHERS		162158.79	311468.78		202635.09	357826.12	719496.24
TOTAL CURRENT ASSETS	43155.60	11752007.02	10054761.05	36473.91	8412659.62	10222911.26	1747560.33
INVESTMENT		271920.00			452770.00		
PROPERTY & EQUIPMENT-NET	378500.92	22350300.32	22597236.37	392805.62	23878464.65	1709703.30	6141020.22
OTHER ASSETS	25733.94	15883.00	189988.12	26103.03	13335.00	230709.23	
TOTAL ASSETS	447390.46	34533110.34	32841985.54	455382.56	32757229.27	27551523.79	7888580.55

TABLE 5.1 (cont.)

LIABILITIES & STOCKHOLDERS' EQUITY	1984			1983			1982
	SECONDARY	TERTIARY	MED. CENTER	SECONDARY	TERTIARY	MED. CENTER	TERTIARY
CURRENT LIABILITIES							
ACCOUNTS PAYABLE & ACCRUALS	163912.66	4767924.37	3030970.64	167566.76	2967786.67	2697894.71	1309162.75
LOANS PAYABLE		7238035.00	1000000.00		8189938.00		
NOTES PAYABLE			7644022.19			8323788.65	
INCOME TAX		300937.02	43861.78		33378.42	99907.63	59742.83
OTHER PAYABLES		1613149.24	5158975.49		1586615.14	3734356.16	1924286.72
TOTAL CURRENT LIABILITIES	163912.66	13920046.24	16877800.10	167566.76	12777718.23	14855947.15	3293192.30
LONG-TERM LOAN	35411.94		1500000.00	32518.04		138205.62	
DEFERRED CREDITS			545935.20			387204.56	
TOTAL LIABILITIES	199324.60	13920046.24	18923755.30	200084.80	12777718.23	15381357.33	3293192.30
STOCKHOLDERS' EQUITY							
CAPITAL STOCK	168000.00	18440508.76	9760997.88	168000.00	17189874.58	8933958.48	3835703.25
ADD'L PAID-IN CAPITAL							
APPRAISAL SURPLUS							
RETAINED EARNINGS	80065.86	2172555.34	4157252.36	87297.76	2789636.46	3236207.98	759685.00
TOTAL STOCKHOLDERS' EQUITY	248065.86	20613064.10	13918250.24	255297.76	19979511.04	12170166.46	4595388.25
TOTAL LIABILITIES & STOCKHOLDERS' EQUITY	447390.46	34533110.34	32841985.54	455382.56	32757229.27	27551523.79	7888580.55

SOURCE: SECURITIES AND EXCHANGE COMMISSION

	1984			1983			1982
	SECONDARY	TERTIARY	MED. CEN.	SECONDARY	TERTIARY	MED. CEN.	TERTIARY
LIQUIDITY							
CURRENT RATIO	0.26	0.84	0.60	0.22	0.66	0.69	0.55
ACID TEST RATIO	0.26	0.35	0.25	0.22	0.25	0.59	0.27
COLLECTION DAYS	0.00	19.00	6.00	0.00	17.00	8.00	10.00
LEVERAGE							
DEBT-EQUITY RATIO	0.14	0.35	0.73	0.13	0.41	0.69	
PROFITABILITY							
NET INCOME(LOSS) TO REVENUE	-0.60	2.06	3.69	-0.60	2.00	4.50	-4.
OPERATING INCOME TO REVENUE	-0.60	0.80	4.56	-0.60	0.90	6.58	-2.
RETURN TO TOTAL ASSETS	-1.6	3.25	4.56	-1.38	2.48	5.25	-7.
RETURN ON EQUITY	-2.9	5.44	10.76	-2.46	4.07	11.88	-12.

* SECONDARY HOSPITALS INTEREST COST WERE OFFSET BY THEIR INTEREST INCOME

SOURCE: SANTOS, 1987

TABLE 5.3
PRIVATE TERTIARY HOSPITAL (P3)
BALANCE SHEETS
December 31, 1987, 1988, 1989, 1990, 1991

	<u>ASSETS</u>				
	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Current Assets					
Cash on Hand & In Banks (Incl. Time Deposit)	7.74 %	16.87 %	11.88 %	15.96 %	16.07
Investments (Trust/Indenture)	20.98 %	6.71 %	2.66 %	1.64 %	3.44
Accounts Receivable (Net of Allowance for Doubtful Accounts of P2,702,030 for 1988)	16.14 %	15.39 %	14.54 %	17.86 %	14.66
Accounts Receivable - Others	2.18 %	3.38 %	3.99 %	5.60 %	5.35
Inventories - At Cost - FIFO	13.56 %	12.74 %	12.04 %	11.49 %	9.27
Prepaid Expenses	0.03 %	0.07 %	0.10 %	0.07 %	0.06
Total Current Assets	60.64 %	55.16 %	45.21 %	52.63 %	48.85
Property and Equipment					
At Cost - Schedule 1	60.87 %	61.15 %	70.04 %	61.30 %	62.77
Less: Accumulated Depreciation	21.54 %	16.33 %	15.33 %	13.98 %	11.65
Property and Equipment - Net	39.33 %	44.82 %	54.71 %	47.31 %	51.12
Other Assets	0.03 %	0.02 %	0.08 %	0.06 %	0.03
TOTAL ASSETS	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00</u>
LIABILITIES AND CAPITAL					
Liabilities:					
Loans Payable - Bank, Trade Equipments	3.17 %	0.00 %	0.00 %	60.39 %	
Capital:					
Atty. & Dra. Inting, Capital, Jan. 1	129.53 %	80.57 %	89.65 %	38.12 %	
Add: Additional Investment	0.00 %	17.30 %	7.75 %	0.00 %	
Less: Drawings	129.53 %	97.87 %	97.40 %	0.00 %	
Add: Net Income for the Year	2.08 %	0.00 %	0.00 %	0.00 %	
Atty. & Dra. Inting, Capital, Dec. 31	127.45 %	97.87 %	0.00 %	0.00 %	
	-30.62 %	2.13 %	2.60 %	1.49 %	
Total Liabilities and Capital	96.83 %	100.00 %	100.00 %	39.61 %	
	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	

Source: SEC Audited Financial Statements

Current Liabilities					
Accrued Expenses & Accounts Payable	17.15 %	9.98 %	15.33 %	15.82 %	18.57 %
Loans Payable - Mother House	1.33 %	0.56 %	0.40 %	0.14 %	0.09 %
Total Current Liabilities	18.48 %	10.54 %	15.73 %	15.96 %	18.65 %
Long Term Liabilities	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Installment Payable	0.00 %	0.00 %	0.00 %	0.00 %	2.79 %
Net Worth - Non-Stock					
Balance - Beginning	58.22 %	51.35 %	64.51 %	58.43 %	51.66 %
Donated Surplus	1.02 %	10.13 %	0.97 %	1.78 %	9.16 %
Prior Year's Adjustments	0.00 %	2.42 %	0.00 %	0.00 %	0.00 %
Total Net Worth	59.24 %	63.89 %	65.47 %	60.21 %	60.82 %
Excess of Receipts Over Expenses	22.28 %	25.57 %	18.79 %	23.84 %	17.74 %
Present Worth	81.52 %	89.46 %	84.27 %	84.04 %	78.56 %
TOTAL LIABILITIES AND NET WORTH	<u>P 100.00 %</u>	<u>P 100.00 %</u>	<u>P 100.00 %</u>	<u>P 100.00 %</u>	<u>P 100.00 %</u>

Source: Credited Financial Statements

TABLE 5.4

**PRIVATE SECONDARY HOSPITAL (P2)
COMPARATIVE BALANCE SHEET
As of December 31, 1989 & 1990**

	1989	1990	1991	1992
ASSETS				
Current Assets:				
Cash on Hand & In Bank	0.56 %	2.67 %	6.63 %	1.04 %
Accounts Receivables	9.81 %	7.30 %	6.88 %	6.58 %
Medicines & Medical Supplies	27.19 %	21.66 %	19.90 %	13.70 %
Total Current Assets	37.56 %	31.64 %	33.41 %	21.32 %
Fixed Assets:				
Land	2.08 %	1.73 %	1.55 %	0.59 %
Building	36.95 %	43.55 %	37.68 %	27.48 %
Less: Accumulated Depreciation	3.62 %	3.80 %	3.51 %	15.83 %
	33.33 %	39.75 %	34.17 %	11.65 %
Furniture & Hospital Equipment	25.99 %	26.89 %	31.89 %	82.44 %
Less: Accumulated Depreciation	2.81 %	2.84 %	3.24 %	16.53 %
	23.19 %	24.05 %	28.65 %	65.90 %
Vehicles	4.28 %	3.20 %	2.54 %	3.07 %
Less: Accumulated Depreciation	0.44 %	0.36 %	0.33 %	2.53 %
	3.84 %	2.83 %	2.21 %	0.54 %
Total Fixed Assets	62.44 %	68.36 %	66.59 %	78.68 %
Total Assets	100.00 %	100.00 %	100.00 %	100.00 %

Source: Audited Financial Statement

Another observation pointed out by J.P. Crisostomo (1976 p. 135) is the fact that cost of construction per bed falls as the number of beds rises since area per bed falls. Thus economies of scale in investment costs exist in hospitals. This is further supported by observations that fixed asset to total asset ratio of smaller hospitals was higher than in larger hospitals.

Table 5.3 for P3 Hospital and Table 5.4 for P2 Hospital support Crisostomo's observation of the fixed asset to total asset ratios of large and small hospitals. P3 Hospital's fixed assets account for 51.1 percent of total assets in 1991 while P2 Hospital had 78.7 percent.

Among the accounts in current assets, accounts receivable range from 37 to 59 percent, while inventory ranges from 11 to 39 percent in stock private hospitals studied by Bengzon. In the non-stock hospitals covered in the same study, accounts receivables range from 40 to 50 percent of total current assets, while inventory ranges from 21 to 43 percent.

From Table 5.3 we note a gradual increase in the proportion of property and equipment in the total assets of P3 Hospital - from 39.3 percent in 1987 to 51.1 percent in 1991. Consequently, current assets declined from 60.6 percent in 1987 to 48.9 percent in 1991.

Table 5.5 shows the growth of the various balance sheet accounts of P3 Hospital from 1987 to 1991. Total assets grew by more than 500 percent over the 5-year period. Property and equipment grew faster than total current assets. We also note the rapid growth in cash and account receivable-others and a significant decline of short term investments. Donated surplus increased significantly and paid for most of the asset expansion.

Tables 5.6 shows the growth of the various balance sheet items of P2 Hospital. We may note a sudden upsurge in the building, building depreciation, equipment and equipment depreciation accounts for 1992. Although this was the year when P2 Hospital renovated their building and acquired major equipment, the large depreciation account appears unusual or could be under an accelerated depreciation scheme. We may also note an unusually low investment in accounts receivable of only between 6 percent and 9 percent of total assets, compared with around 15 percent for P3 Hospital.

5.1.3 Pattern of Expenditures of Philippine Hospitals

The ability of a hospital to allocate its available resources among competing needs determines its financial viability. Lantin and Palma-Fernandez (1982) report that the Quezon City General Hospital was able to accumulate over the years P8 million as savings from its operations through "sound" financial management and has earmarked this for hospital development projects.

J.P. Crisostomo (1976 p. 41) notes that F.N. Aguilar in 1967 concluded that "small hospitals, contrary to general belief, are not economical and tend to provide inadequate medical service except for the treatment of ordinary conditions."

TABLE 5.5
PRIVATE TERTIARY HOSPITAL (P3)
BALANCE SHEETS
December 31, 1987, 1988, 1989, 1990, 1991

	ASSETS				
Current Assets	1987	1988	1989	1990	1991
Cash on Hand & In Banks (Inc. Time Deposit)	100.00 %	346.12 %	P 338.09 %	P 654.90 %	P 1072.80
Investments (Trust/Indenture)	100.00 %	50.76 %	27.87 %	24.82 %	84.78
Accounts Receivable (Net of Allowance for Doubtful Accounts of P 2,702,030 for 1988)	100.00 %	151.38 %	198.40 %	351.45 %	469.26
Accounts Receivable - Others	100.00 %	245.65 %	402.39 %	815.00 %	1264.40
Inventories - At Cost - FIFO	100.00 %	149.22 %	195.46 %	269.13 %	353.38
Prepaid Expenses	100.00 %	339.04 %	683.84 %	741.52 %	908.35
Total Current Assets	100.00 %	144.42 %	164.16 %	275.64 %	416.19
Property and Equipment					
At Cost - Schedule 1	100.00 %	159.48 %	253.35 %	319.79 %	532.72
Less: Accumulated Depreciation	100.00 %	120.36 %	156.67 %	206.16 %	279.41
Property and Equipment - Net	100.00 %	180.91 %	306.29 %	382.02 %	671.44
Other Assets	100.00 %	100.00 %	571.43 %	571.43 %	571.43
TOTAL ASSETS	100.00 %	158.76 %	220.19 %	317.57 %	516.63

TABLE 5
(continuation)

Current Liabilities					
Accrued Expenses & Accounts Payable	100.00 %	92.36 %	196.80 %	292.83 %	559.24
Loans Payable - Mother House	100.00 %	66.67 %	66.67 %	33.33 %	33.33
Total Current Liabilities	100.00 %	90.52 %	187.46 %	274.21 %	521.49
Long Term Liabilities					
Installment Payable					
Net Worth - Non-Stock					
Balance - Beginning	100.00 %	140.02 %	243.95 %	318.69 %	458.43
Donated Surplus	100.00 %	1571.44 %	208.16 %	553.24 %	4625.65
Prior Year's Adjustments					
Total Net Worth	100.00 %	171.21 %	243.34 %	322.74 %	530.39
Excess of Receipts Over Expenses	100.00 %	182.24 %	185.77 %	339.79 %	411.36
Present Worth	100.00 %	174.23 %	227.60 %	327.40 %	497.86
TOTAL LIABILITIES AND NET WORTH	<u>P 100.00 %</u>	<u>P 158.76 %</u>	<u>P 220.19 %</u>	<u>P 317.57 %</u>	<u>P 516.63</u>

TABLE 5.6
PRIVATE SECONDARY HOSPITAL (P2)
COMPARATIVE BALANCE SHEET
As of December 31, 1989 & 1990

	1989	1990	1991	1992
ASSETS				
Current Assets:				
Cash on Hand and In Bank	100.00 %	569.22 %	1573.38 %	645.03
Accounts Receivable	100.00 %	89.42 %	94.02 %	236.00
Medicines & Medical Supplies	100.00 %	95.75 %	98.13 %	177.13
Total Current Assets	100.00 %	101.21 %	119.23 %	199.54
Fixed Assets:				
Land	100.00 %	100.00 %	100.00 %	100.00
Building	100.00 %	141.65 %	136.72 %	261.56
Less: Accumulated Depreciation	100.00 %	126.27 %	130.07 %	1538.75
	100.00 %	143.31 %	137.45 %	122.95
Furniture & Hospital Equipment	100.00 %	124.33 %	164.45 %	1115.23
Less: Accumulated Depreciation	100.00 %	121.66 %	154.53 %	2070.32
	100.00 %	124.66 %	165.66 %	999.55
Vehicles	100.00 %	89.77 %	79.53 %	252.19
Less: Accumulated Depreciation	100.00 %	100.00 %	100.00 %	2033.62
	100.00 %	88.60 %	77.20 %	49.11
Total Fixed Assets	100.00 %	131.58 %	142.97 %	443.17
Total Assets	100.00 %	120.17 %	134.05 %	351.65

(continuation)

LIABILITIES AND CAPITAL

Liabilities:

Loans Payable - Bank, Trade Equipments	100.00 %	0.00 %	0.00 %	6689.18
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Capital:

Atty. & Dra. Inting, Capital, Jan. 1	100.00 %	74.75 %	92.78 %	103.49
Add: Additional Investment	100.00 %	90.80 %	100.80 %	0.00
Less: Drawings	100.00 %	0.00 %	0.00 %	0.00
	100.00 %	92.28 %	0.00 %	0.00
Add: Net Income for the year	100.00 %	-8.35 %	-11.38 %	-17.06
Atty. & Dra. Inting, Capital, Dec. 31	100.00 %	124.11 %	138.45 %	143.84

Total Liabilities and Capital	<u>P 100.00 %</u>	<u>P 120.17 %</u>	<u>P 134.05 %</u>	<u>351.65</u>
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Source: Audited Financial Statement

In his review of the 1974 PHA survey, J.P. Crisostomo (1976, p. 51) notes that the survey concluded that "larger hospitals had lower costs per patient per day than the smaller ones and that missionary hospitals had lower costs than either government or private hospitals."

Dr. Thelma Clemente, on the other hand, disagrees with the above observations and conclusions, pointing out that tertiary hospitals have to conform with certain requirements which tend to raise costs. Construction cost may also be higher for larger hospitals to meet those requirements. Smaller hospitals may also have lower labor costs and are involved with low level cases which cost less to treat than the higher level cases of larger hospitals. Larger hospitals also have to operate non-profit service areas, such as the ambulance service and high cost ICU units. Bad debts of patients of large hospitals also tend to be higher. The analysis below provides some elucidation on this difference in opinion.

Personnel Expenditures

As a service institution salaries and wages account for a substantial portion of a hospital's expenses. Bengzon's sample of 6 hospitals shows this item to run from 20 to 40 percent of total expenditures. The other expenditure item competing with labor is supplies, accounting for 23 to 40 percent of total expenses.

Tables 5.7 and 5.8 show the differences in hospital labor cost per day among rural, urban, and Metro Manila hospitals in 1983 to 1985, while Table 5.9 shows personnel expenditure of DOH hospitals in 1989. A very large disparity exists in labor cost between rural and urban hospitals. Labor cost also rises from primary to secondary and tertiary hospitals. Among DOH hospitals, however, the percentage of labor cost to total expenditure drops significantly in tertiary hospitals.

Table 5.10 shows the regional disparity of labor cost as a percentage of total expenditure. Tertiary DOH hospitals in region 2 have the lowest at 21.03 percent while the highest is region 1 with 48.75 percent in the same category. Among primary hospitals those in region 2, with 65.38 percent have the highest labor expenditures, while the lowest are those in region 7 with 25.77 percent. Among secondary DOH hospitals the highest goes to region 8 at 59.40 percent and the lowest to region 11 at 41.69 percent.

In the case of G3 Hospital, personnel expenditures accounted for 44.66 percent of total expenditures in 1988, 60.77 percent in 1990, 56.82 percent in 1991, and 55.25 percent in 1992 (Tables 5.11). The fluctuations may be attributed to retirement, resignations, leaves without pay and the salary standardization law.

In the case of G2 Hospital, personnel expenditures accounted for 68.21 percent of total expenditures in 1989, 74.75 percent in 1990, and a high of 81.5 percent in 1991 (Tables 5.12). This unusually large percentage of personnel expenditures may be attributed to the low increases in total expenditures. In 1990 personnel expenditures increased 53 percent over that of 1989

while total expenditures increased 35 percent. In 1991 personnel expenditures increased 15 percent over that of 1990, while total expenditures increased only 2 percent.

Over the 4-year period under review P2 Hospital had personnel expenditures which ranged from 21.99 percent of total expenditures to 37.93 percent.

Drug and Medicine Expenditures

Table 5.14 shows the absolute amount of drug and medicinal expenditures of DOH hospitals by region, by category, and by class, as well as their percentages to total expenditures. Highest expenditures for drug and medicine are incurred in region 9 at 16.60 percent while the lowest is region 7 at 2.26 percent of total expenditures. The national average is 8.27 percent. At the regional level, comparing the pattern of drug and medicine expenditures with personnel expenditures, we note that (from Table 5.10) regions 7 and 9 did not have large differences in personnel expenditures except in the primary hospitals. Region 7 had lower personnel expenditures, and except in the secondary hospitals.

At the hospital category level, secondary hospitals have the lowest drug and medicine expenditures at 3.22 percent of total costs. This rises to 6.23 percent in primary hospitals and up to 10.90 percent in tertiary hospitals. One can hypothesize that the advanced cases in tertiary hospitals would require more expensive medication while economies of scale in purchasing may account for the lower expenditures in secondary hospitals compared to primary hospitals. A comparison of this pattern with that of personnel expenditures (from Table 5.9) shows the opposite. Secondary hospitals have the highest percentage of personnel expenditures, followed by primary, and the lowest are the tertiary hospitals.

In G3 Hospital drugs and medicines accounted for 7 percent of total expenditures in 1988, 5 percent in 1989, 6 percent in 1990, 7 percent in 1991, and 7 percent in 1992. This runs below the industry average among tertiary hospitals in 1989 for drugs and medicines which was 10.90 percent of total expenditures, but close to the regional hospital average of 6.33 percent.

P3 Hospital's pharmacy expense of 30.6 percent in 1987 decreased to 22.8 percent in 1991 (Table 5.15). This large decline is partly responsible for the rise in excess of receipts over expenses from 17.1 percent to 23.6 percent.

In G2 Hospital drugs and medicines accounted for 2.6 percent of total expenditures in 1989, 3 percent in 1990, and a much lower 2.2 percent in 1991. The industry average among secondary hospitals in 1989 for drugs and medicines was 3.22 percent of total expenditures, while among district hospitals, drugs and medicines accounted for 4.66 percent of total expenditures in 1989.

We should note that the amount of drugs and medicines expenditures in government hospitals is determined more by fund availability than by the needs of the patients. Most patients are indigent and, as reported in the interviews with the 2 government hospitals, very often the

TABLE 5.7
HOSPITAL LABOR COST PER DAY

	<u>1983</u>	<u>RURAL</u> <u>1984</u>	<u>1985</u>	<u>1983</u>	<u>URBAN</u> <u>1984</u>	<u>1985</u>	<u>1983</u>	<u>METRO MANILA</u> <u>1984</u>	<u>1985</u>
PRIMARY	27.40	39.72	50.64	41.92	50.31	63.96	44.30	54.80	72.08
SECONDARY	33.74	49.50	74.85	53.40	69.82	96.04	80.38	88.75	106.30
TERTIARY	56.48	68.40	99.64	99.64	123.86	141.14	105.60	131.66	148.74

NOTE: INFORMATION ON METRO MANILA TERTIARY HOSPITALS REPRESENT 12 HOSPITALS

SOURCE: PHA SURVEY 1985

TABLE 5.8
AVERAGE PERCENTAGE OF LABOR COST
TO HOSPITAL OPERATING EXPENSES

	<u>RURAL</u>	<u>URBAN</u>	<u>METRO MANILA</u>
PRIMARY	27.61 %	35.66 %	38.48 %
SECONDARY	31.49 %	39.98 %	41.02 %
TERTIARY	34.72 %	42.48 %	44.35 %

* - REPRESENTS 12 HOSPITALS

SOURCE: PHILIPPINE HOSPITAL ASSOCIATION, SURVEY 1985

TABLE 5.9 TOTAL EXPENDITURE FOR PERSONNEL SERVICES, DOH HOSPITALS, 1989

HOSPITALS BY CATEGORY	TOTAL EXPENDITURES FOR PERSONNEL (PM)	% OF TOTAL CURRENT EXPENDITURES
Primary	32.90	48.45 %
Secondary	488.14	54.83 %
Tertiary	393.70	20.81 %
Special/1	11.22	40.67 %
TOTAL	925.96	32.18 %

1/Research Institute for Tropical Medical Medicine (RITM) Hospital

Source of basic data: HOMS, DOH

From: Solon (1991), Health Sector Financing in the Philippines, Vol. II, RTI/UPSE.

TABLE 5.10 Share of Personnel Expenditures to Total Expenditures in DOH Hospitals by Region and by Type of Hospital, 1989 (In percent)

REGION	PRIMARY	SECONDARY	TERTIARY
1	49.35	55.90	48.75
2	65.38	47.02	21.03
3	34.49	48.21	33.03
4	55.56	49.20	29.60
5	35.95	50.32	44.27
6	37.50	49.68	31.85
7	25.77	54.74	30.64
8	41.05	59.40	45.66
9	43.23	47.05	33.69
10	55.45	49.84	43.97
11	31.99	41.69	41.97
12	51.72	42.71	21.95
CAR	61.34	51.69	36.16
NCR/1		42.46	Inc. Data

1/No Primary DOH hospital in NCR.

Source of basic data: HOMS - DOH

From: Solon (1991), Health Sector Financing in the Philippines, Vol. II, RTI/UPSE.

LES.12

TABLE 5.11
GOVERNMENT TERTIARY HOSPITAL (G3)
STATEMENT OF EXPENSES

	1988	1989	1990	1991	1992
	% to TOTAL	% to TOTAL	% to TOTA	% to TOTA	% to TOTAL
SALARIES	36.15 %	33.58 %	54.07 %	49.25 %	49.06 %
WAGES	0.74 %	0.58 %	0.51 %	0.36 %	0.33 %
GSIS/SSS REMITTANCES	3.01 %	2.97 %	2.09 %	3.37 %	2.22 %
MATERNITY LEAVE BENEFITS	0.00 %	0.20 %	0.21 %	0.24 %	0.22 %
MEDICARE CONTRIBUTION	0.18 %	0.20 %	0.29 %	0.51 %	0.27 %
COST OF SUBSISTENCE	4.22 %	3.44 %	3.34 %	2.87 %	2.95 %
LAUNDRY ALLOWANCE	0.36 %	0.28 %	0.26 %	0.22 %	0.20 %
SURGICAL/MEDICAL SUPPLIES	24.10 %	13.72 %	18.80 %	21.51 %	18.05 %
COST OF MEDICINES	7.23 %	4.72 %	6.27 %	6.65 %	7.25 %
TRAVELLING EXPENSES	0.90 %	0.71 %	0.63 %	0.59 %	0.67 %
RENTALS	0.01 %	0.01 %	0.08 %	0.09 %	0.07 %
WATER	0.54 %	0.54 %	0.21 %	0.12 %	0.09 %
POWER/LIGHT SERVICES	1.51 %	1.18 %	1.39 %	0.95 %	1.05 %
POSTAL/TELEG & TEL SERVICE	0.03 %	0.06 %	0.04 %	0.02 %	0.06 %
REPAIR OF BUILDING	1.20 %	1.64 %	0.20 %	0.19 %	0.17 %
REPAIR OF EQUIPMENT	0.30 %	0.10 %	0.04 %	0.14 %	0.04 %
PURCHASE OF EQUIPMENT	0.00 %	1.95 %	0.00 %	0.00 %	0.00 %
OTHER EXPENSES	19.52 %	27.99 %	11.56 %	12.93 %	17.29 %
AMORTIZATION	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
CAPITAL OUTLAY	0.00 %	6.15 %	0.00 %	0.00 %	0.00 %
	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
TOTAL EXPENDITURES	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Source: Hospital Statistical Reports

TABLE 5.12**GOVERNMENT SECONDARY HOSPITAL (G2)
STATEMENT OF EXPENSES**

	1989	1990	1991
	% to TOTAL	% to TOTAL	% to TOTAL
SALARIES	55.70 %	63.24 %	70.90 %
WAGES	0.98 %	0.63 %	1.23 %
GSIS/SSS REMITTANCES	0.00 %	0.00 %	0.09 %
MATERNITY LEAVE BENEFITS	0.00 %	0.00 %	0.00 %
MEDICARE CONTRIBUTION	0.00 %	0.00 %	0.00 %
COST OF SUBSISTENCE	11.12 %	10.55 %	9.03 %
LAUNDRY ALLOWANCE	0.41 %	0.33 %	0.25 %
SURGICAL/MEDICAL SUPPLIES	12.40 %	13.26 %	6.81 %
COST OF MEDICINES	2.57 %	3.25 %	2.54 %
TRAVELLING EXPENSES	1.45 %	2.04 %	2.13 %
RENTALS	0.00 %	0.03 %	0.00 %
WATER	1.90 %	2.21 %	0.00 %
POWER/LIGHT SERVICES	0.00 %	0.00 %	2.02 %
POSTAL/TELEG & TEL SERVICE	0.28 %	0.25 %	0.35 %
REPAIR OF BUILDING	0.00 %	0.00 %	0.00 %
REPAIR OF EQUIPMENT	0.52 %	0.99 %	0.31 %
PURCHASE OF EQUIPMENT	8.59 %	0.99 %	0.01 %
OTHER EXPENSES	3.17 %	2.24 %	4.34 %
AMORTIZATION	0.00 %	0.00 %	0.00 %
CAPITAL OUTLAY	0.90 %	0.00 %	0.00 %
TOTAL EXPENDITURES	100.00 %	100.00 %	100.00 %

Source: Hospital Statistical Report

TABLE 5.13**PRIVATE SECONDARY HOSPITAL (P2)****Comparative Income Statement****Years Ended December 31, 1989, 1990, 1991, 1992**

	1989	1990	1991	1992
Hospital Revenues	100.00 %	100.00 %	100.00 %	100.00 %
Gross Profit - Pharmacy	0.00 %	0.00 %	0.00 %	5.08 %
Less Operating Expenses:				
Salaries & Wages (Inc. subs. & relievers)	27.69 %	16.23 %	18.32 %	25.05 %
Allowances	9.81 %	5.59 %	4.94 %	6.47 %
Maternit/Sickness Benefits	0.43 %	0.17 %	0.00 %	0.00 %
Foods & Dietaries	27.87 %	35.13 %	30.98 %	52.47 %
Medicines & Med. Supplies	31.96 %	33.39 %	35.53 %	6.90 %
Taxes, Licenses & Other Fees	0.51 %	0.61 %	0.69 %	0.54 %
Maintenance & Repairs (Inc. Gas & Oil)	2.18 %	1.83 %	2.88 %	1.51 %
Fuel and Lubricants	0.00 %	0.00 %	0.00 %	0.33 %
Light, Power and Water	4.22 %	2.65 %	2.59 %	2.72 %
Postage, Telephones and Telegram	0.30 %	0.26 %	0.21 %	0.25 %
Transportation and Travel	0.32 %	0.16 %	0.12 %	0.29 %
SSS, Medicare & EC Cont.	1.39 %	0.73 %	0.82 %	1.17 %
Office Supplies	0.76 %	0.42 %	0.33 %	0.64 %
Depreciation	2.60 %	1.65 %	1.63 %	4.46 %
Insurance Expense	0.22 %	0.10 %	0.09 %	0.09 %
Interest Expense	0.25 %	0.07 %	0.00 %	0.94 %
Representation Expenses	0.51 %	0.18 %	0.06 %	0.05 %
Books, Periodicals & Magazines	0.28 %	0.14 %	0.09 %	0.09 %
Donation/Publications	0.31 %	0.18 %	0.13 %	0.11 %
Total Operating Expenses	111.61 %	99.50 %	99.40 %	104.09 %
Net Income from Operations (Loss)	P -11. %	0.50 %	0.60 %	0.99 %
Add: Other Income	0.00 %	0.00 %	0.00 %	0.00 %
Prof. Fees - Dr. Inting	8.80 %	9.77 %	8.96 %	0.00 %
Salaries - Dr. Inting	1.29 %	0.77 %	0.66 %	0.00 %
Total Net Income (Loss)	P -1.5 %	11.04 %	10.22 %	0.00 %

Source: Audited Financial Statements

TABLE 5.14
DRUGS AND MEDICINAL EXPENDITURES OF DOH HOSPITALS, 1989
IN THOUSAND PESOS

	Total Expenditures for Drugs & Medicines	Total Expenditures	Ratio of Drug & Medicine Expenditures to Total
By Region			
REGION I	8,699.88	160,286.91	5.43 %
REGION II	11,230.32	142,209.54	7.9 %
REGION III	7,491.42	207,600.19	3.61 %
REGION IV	15,816.70	304,504.38	5.19 %
REGION V	13,049.24	212,247.75	6.15 %
REGION VI	7,327.92	138,829.19	5.28 %
REGION VII	2,816.37	124,843.99	2.26 %
REGION VIII	9,689.12	161,276.05	6.01 %
REGION IX	18,434.94	111,050.02	16.6 %
REGION X	18,227.06	178,060.22	10.24 %
REGION XI	8,261.39	167,256.56	4.94 %
REGION XII	3,644.71	100,715.05	3.62 %
NCR	125,988.22	1,011,869.47	12.45 %
CAR	7,356.83	100,937.45	7.29 %
TOTAL	258,034.12	3,121,686.77	8.27 %
By Category			
PRIMARY	4,910.97	78,850.15	6.23 %
SECONDARY	32,063.14	996,857.06	3.22 %
SPECIAL	1,102.87	28,260.16	3.9 %
TERTIARY	219,957.14	2,017,719.50	10.9 %
TOTAL	258,034.12	3,121,686.87	8.27 %
By Class			
DISTRICT	45,832.83	982,607.07	4.66 %
MCH	2,700.27	53,227.59	5.07 %
MEDICAL CENTER	16,491.82	306,845.44	5.37 %
MUNICIPAL	1,514.20	49,624.04	3.05 %
PROVINCIAL	53,256.62	568,597.00	9.37 %
REGIONAL	25,051.07	395,533.09	6.33 %
RESEARCH	1,102.87	28,260.06	3.9 %
SANTARIA	7,226.29	83,156.07	8.69 %
SPECIAL	42,862.57	280,843.05	15.26 %
SPECIALTY	61,995.59	372,993.35	16.62 %
TOTAL	258,034.13	3,121,686.76	8.27 %

Source: Department of Health

From: Solon (1991) Health Sector Financing in the Philippines, Vol. II, RTI/UPSE.

TABLE 5.15
Private Tertiary Hospital (P3)
Statements of Revenues and Expenses
For the years ended December 31, 1987 and 1988

RECEIPTS	1987	1988	1989	1990	1991
Special Services	80.91 %	82.60 %	79.30 %	76.34 %	77.33 %
Routine Services	21.10 %	21.34 %	22.94 %	24.24 %	21.37 %
Miscellaneous Income	1.76 %	2.30 %	2.55 %	3.29 %	4.21 %
TOTAL	103.77 %	106.24 %	104.79 %	103.87 %	102.90 %
Deduct: Charity Discounts & Refunds	0.00 % 3.77 %	0.00 % 6.24 %	0.00 % 4.79 %	0.00 % 3.87 %	0.00 % 2.90 %
NET REVENUE	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
DEDUCT: OPERATING EXPENSES					
Pharmacy	30.60 %	30.12 %	26.09 %	26.08 %	22.76 %
Administrative & General Maintenance	23.07 %	17.30 %	19.76 %	17.49 %	21.07 %
Nursing Service - In-Patients	5.79 %	5.81 %	6.18 %	6.02 %	6.29 %
Operating & Delivery Rooms	4.46 %	5.24 %	5.20 %	4.62 %	4.78 %
Laboratory	4.17 %	5.11 %	5.74 %	5.46 %	5.29 %
Dietary	4.79 %	4.65 %	5.22 %	4.40 %	4.58 %
X-ray	2.24 %	2.18 %	2.83 %	1.98 %	2.18 %
Household & Maintenance	2.48 %	2.17 %	2.77 %	2.80 %	2.82 %
Linen & Laundry	1.39 %	1.41 %	1.69 %	1.47 %	1.50 %

(continuation)

Rental Unit	0.79 %	1.00 %	0.90 %	0.73 %	0.79 %
Central Service	1.02 %	0.98 %	0.93 %	0.84 %	0.83 %
Emergency Room - OPD	0.91 %	0.94 %	0.76 %	0.94 %	1.09 %
Ambulance & Motor Service	0.44 %	0.36 %	0.34 %	0.48 %	0.55 %
ECG & Pulmonary	0.37 %	0.32 %	0.94 %	0.72 %	1.04 %
Medical Records	0.18 %	0.20 %	0.22 %	0.23 %	0.34 %
Physio-Therapy	0.15 %	0.14 %	0.14 %	0.11 %	0.13 %
Gastro-Intestinal Unit, DUU & Bronchoscopy Unit	0.02 %	0.03 %	0.04 %	0.26 %	0.37 %
Total Operating Expenses	82.87 %	77.98 %	79.76 %	74.63 %	76.42 %
EXCESS OF RECEIPTS OVER EXPENSES	17.13 %	22.02 %	20.24 %	25.37 %	23.58 %

TABLE 5.16

ACTUAL HOSPITALIZATION COST PER TYPE OF HOSPITAL PER ITEM OF HOSPITALIZATION, PHILIPPINES, 1989

TYPE OF HOSPITALIZATION	GOVERNMENT		PRIVATE		TOTAL	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
1. Room & Board Expense	326,621.20	18.36 %	1,480,875.73	18.32 %	1,807,496.93	17.50 %
2. Medical Expense	664,214.27	37.34 %	3,639,131.65	42.56 %	4,303,345.92	41.66 %
a. Drugs & Medicines	441,396.48	24.81 %	2,552,625.29	29.85 %	2,994,023.77	28.98 %
b. Lab/X-Ray & Others	222,817.79	12.53 %	1,086,506.36	12.71 %	1,309,324.15	12.68 %
3. Professional Fees	179,700.20	10.10 %	973,658.60	11.39 %	1,153,358.80	11.17 %
4. Operating Room Fees	98,886.50	5.56 %	482,794.39	5.65 %	581,680.89	5.63 %
5. Surgeon's Fees	375,252.30	21.09 %	1,404,949.46	16.43 %	1,780,201.76	17.23 %
6. Anesthesiologist's Fees	110,983.87	6.24 %	389,060.39	4.55 %	500,044.26	4.84 %
7. Other Charges	23,248.60	1.31 %	180,384.81	2.11 %	203,633.41	1.97 %
Total	1,788,906.94	100.00 %	8,550,855.03	100.00 %	10,329,761.97	100.00 %

PMCC Database Based on 5,356 sampled claims

From: Solon (1991), Health Sector Financing in the Philippines, Vol. II, RTI/UPSE.

hospital can afford to provide only the initial dose even if the patient cannot afford the succeeding doses.

As part of actual hospitalization cost, drugs and medicines account for 24.81 percent in government hospitals and 29.85 percent in private hospitals as reported by the PMCC based on a sample of claims in 1989 (Table 5.16).

Other Categories of Expenditures

Another expenditure category competing with personnel and drugs and medicines is surgical and medical supplies. In G3 Hospital this was 24 percent in 1988, 14 percent in 1989, 19 percent in 1990, 22 percent in 1991, and 18 percent in 1992. Lower appropriation and allotment vis-a-vis prices of supplies may have accounted for the decreases in certain years. For G2 Hospital, surgical and medical supplies accounted for only 12 percent of total expenditures in 1989, 13 percent in 1990, and 6 percent in 1991.

Table 5.17 shows the differences in cost of emergency, raw foods and of ancillary services in primary, secondary, and tertiary hospitals; and rural, urban, and Metro Manila hospitals. We note in this table the sharp rise in cost of ancillary services in tertiary hospitals in all locations compared to similar increases in other cost categories. Table 5.18 also shows a similar pattern of a sharp increase in tertiary hospitals of hospital bed maintenance cost.

Relative hospital expenditures on the major items: personnel, drugs and medicines, and surgical and medical supplies, vary significantly from region to region and from one hospital category to another. Its relationship to hospital performance is not very clear. There is a need therefore to study a larger sample of hospitals of different categories in different regions to determine the reasons behind the differences in expenditures and their effects on performance.

We may also note that P3 Hospital, a 100-bed private tertiary hospital had a total operating expenditure of P33.5 million in 1991 while for the same year G3 Hospital, a 200-bed government tertiary hospital had P30.1 million. Total patient days for P3 Hospital was 32,159 while for G3 Hospital this was 60,467. At P1,042 per patient day for P3 Hospital, it appears that G3 Hospital spent less than one-half per patient day, at P498 per patient day, compared to P3 Hospital.

For a comparison of cost on the basis of size, we note that P2 Hospital, a 29-bed private secondary hospital, in 1991 had a total of 7,761 patient days and operating expenses of P2.8 million. This gives us P361 per patient day. Its per patient day operating cost is about 35 percent of P3 Hospital's. This indicates that operating cost per patient day increases with the size of the hospital.

Between P2 Hospital and G2 Hospital, per patient day operating cost increased to P530 for G2 Hospital. G2 Hospital's total operating cost in 1991 was P7.68 million and total patient days reached 14,484. This indicates further that size has a positive effect on per patient day

TABLE 5.17
COST PER PATIENT PER DAY AS OF 1985

	<u>RURAL</u>	<u>URBAN</u>	<u>METRO MANILA</u>
<u>EMERGENCY COST</u>			
Primary	15.40	22.30	32.60
Secondary	23.80	31.90	49.09
Tertiary	34.40	48.05	61.04
<u>COST OF RAW FOODS</u>			
Primary	12.32	18.48	20.91
Secondary	18.68	26.94	33.80
Tertiary	26.45	39.40	44.31
<u>COST OF ANCILLIARY</u>			
Primary	24.40	34.60	39.22
Secondary	38.74	49.94	58.45
Tertiary	74.21	86.49	94.60

Note: Information on Metro Manila Tertiary Hospitals
 Represent 12 Hospitals

Source: PHA Survey 1985

TABLE 5.18
HOSPITAL BED MAINTENANCE COST PER DAY

	<u>RURAL</u>			<u>URBAN</u>			<u>METRO MANILA</u>		
	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
PRIMARY	41.22	60.06	81.94	49.03	68.42	98.60	70.01	94.60	124.14
SECONDARY	63.90	79.84	138.90	88.09	101.99	147.40	106.10	113.52	160.40
TERTIARY	92.09	111.34	165.30	127.34	159.61	220.09	201.35	215.17	251.34

NOTE: INFORMATION ON METRO MANILA TERTIARY REPRESENT 12 HOSPITALS

Source: PHA Survey 1985

operating cost. However, a comparison between the two government hospitals, G2 Hospital and G3 Hospital, suggests that there may be economies of scale among government hospitals, or at least that size has no effect on operating cost.

These comparisons, however, are limited in their usefulness because only P3 Hospital appears to be running optimally and has more or less reliable financial data. P2 Hospital's financial data are not consistent, while G2 Hospital and G3 Hospital are operating under tremendous budgetary constraints.

A closer look at the operating expenses of P2 Hospital reveals that food and dietaries in 1992 had increased by 35 percent over that of 1991 although revenues had dropped 4 percent. It is not clear how this happened.

Depreciation expenses of P113,836.32 in 1992 do not match the depreciation expenses as reflected in P2 Hospital's balance sheet. The 1991 accumulated depreciation was only P45,612.60 while in 1992 it rose to P552,237.36. If we get the difference of the two figures, we are supposed to get P506,624.76 a figure very much different from the P113,836.32 reflected in the income statement.

5.1.4 Pattern of Revenues

For private hospitals the sources of funds to meet their operating expenditures are payments of patients and medicare, while government hospitals depend mainly on the budgetary allocation of their governing units, i.e., DOH, LGU, or any other government agency. Figure 5.1 shows the variety of combinations of pay patients, medicare, and charity patients in a government tertiary (G3 Hospital), a government secondary (G2 Hospital), a private tertiary (P3 Hospital), and a private secondary hospital (P2 Hospital).

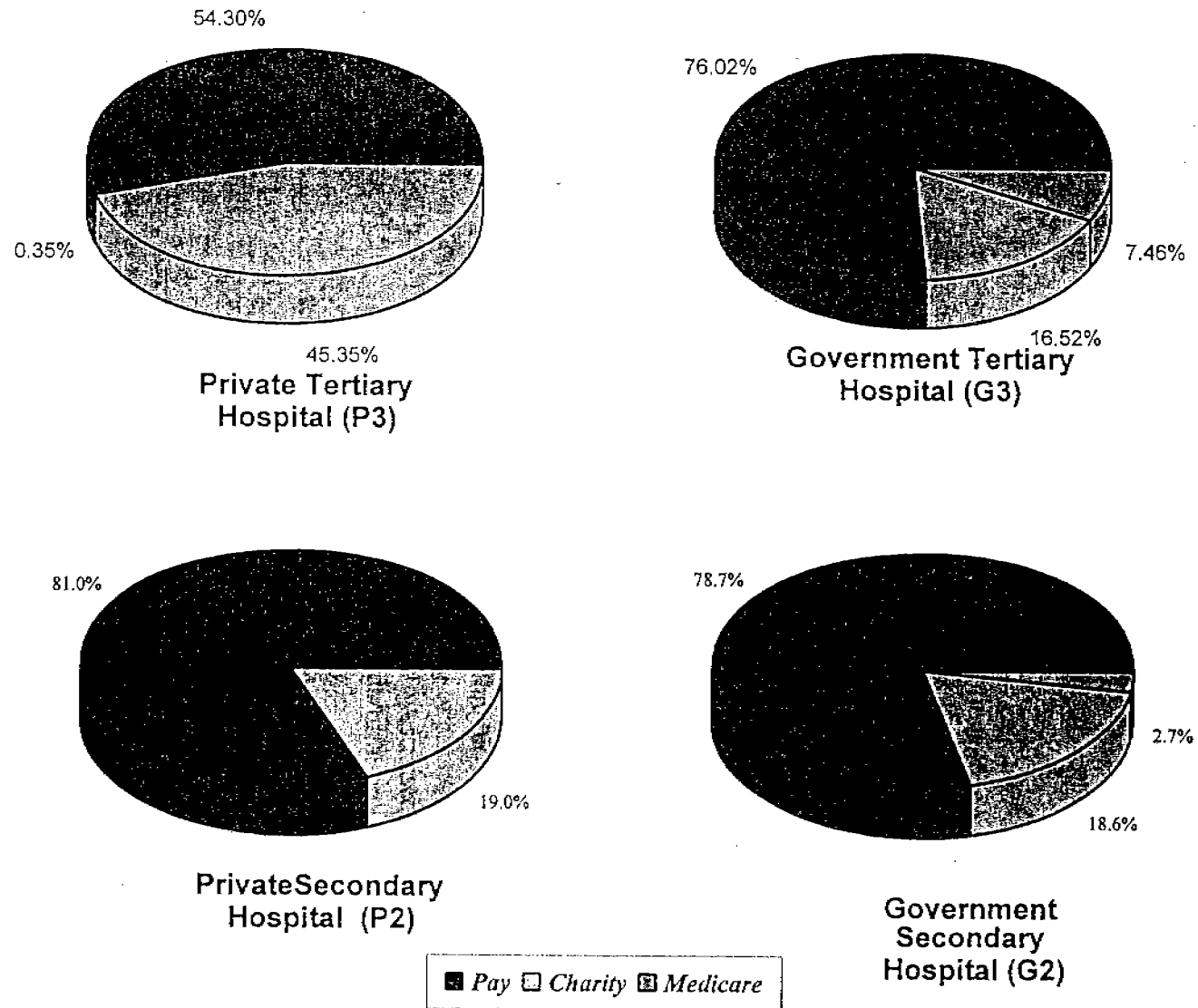
We may note that between P3 Hospital and P2 Hospital, both private hospitals, P3 Hospital has more pay patients, 54.3 percent, compared with P2 Hospital's 19.03 percent. P2 Hospital's other patients were Medicare patients. This may have to do with the differences in the status of competition that exist in their geographical areas of operations. P3 Hospital is perceived to be one of the top rated hospitals, while P2 Hospital, by admission of the owners, rates itself below a major competitor, Ramiro Hospital.

Looking at the government hospitals, G3 Hospital and G2 Hospital, G3 Hospital is able to attract more pay patients, 7.46 percent, compared to G2 Hospital's 2.71 percent. The relatively higher level of capability of G3 Hospital may explain the larger percentage. This is interesting to note since by way of comparison between the private hospitals Bohol seems to have fewer pay patients than Cebu. But for the government hospitals the Bohol hospital gets more pay patients than the Cebu hospital.

Since government hospitals do not have enough pay patients, they have to rely heavily on government budgetary allocations for their operating expense funding. To understand better

DISTRIBUTION OF PATIENTS BY SOURCE OF PAYMENT (1992)

FIGURE 5.1



Source: Hospital Statistical Reports

the nature of this source of funding we look at the way G3 Hospital and G2 Hospital were funded in the last four years.

G3 Hospital receives three types of allotment: personal services, maintenance and operating expenses and capital outlay-construction. Of the three, capital outlay was fully utilized while the personal services allotment was under-utilized in 1988. This may have been caused by some unfilled positions in the plantilla caused by resignations, retirements, and leaves without pay.

In 1989, there were two categories of capital outlay appropriations, one was equipment and the other, construction. Equipment was almost fully utilized with a short fall of about 0.25 percent. Construction, on the other hand had a balance of P213,213 at the end of the year. This figure may be carried over to the following year as a continuing appropriation if the project for which the fund was intended is not yet completed. Both personal services and MOE fell short of the target by 4 percent each.

Capital outlay in 1990 was appropriated at P4.5 M. However, for some reason no construction was done in the same year and this amount was carried over to 1991 as a continuing appropriation and was finally utilized this year. The total amount for the equipment P684,000, was not used and reverted back to the general fund at the end of the year.

In the same year the personal services allotment was underutilized. One possible explanation for the continuous shortfall was the provision of Administrative Order #205 issued by then Pres. Corazon C. Aquino. This promulgation prohibited the filling up of vacant positions in the plantilla as an economic measure. Also prohibited was the hiring of casuals and emergency personnel unless strongly justified. For the same year the salary level was raised by 56 percent from the 1990 figure because of the implementation of the Salary Standardization Law.

In 1991, cost of personal services once again increased by 7 percent because this was the year that the productivity pay and longevity pay were implemented. Equipment and MOE releases were almost fully utilized.

It was only for 1992 that data for budgetary proposal became available. The appropriations approved by the senate exceeded by 25 percent the proposal for personal services and 10 percent for MOE. Personnel services had a shortfall of 3.48 percent against actual disbursements. MOE were almost fully utilized.

The composition of G3 Hospital's revenues from paying and medicare patients is shown in Table 5.19. Total recovery of expense is P3,044,207 out of an expense of P30,111,338, or about 10 percent. Among the major items of revenue are: laboratory fees and X-ray fees.

In the case of G2 Hospital, the yearly allotment for personnel salaries and maintenance and operating expenses was released directly by the Department of Budget and Management. Any income derived from its operations was deposited in a trust account per Special Budget memo Circular no. 321 and the same was used as revolving fund for its operations.

On the average only about 86 percent of the total proposed requirement for Personnel Services and MOE of G2 Hospital was approved through appropriations received by the hospital.

For the four years under review, 1988 to 1992, estimated income of G2 Hospital fell short of actual collections by an average of 1.42 percent. Perhaps, the heavy out-referrals of patients contributed to this situation. Income in 1992 decreased by 4 percent from 1991.

Table 5.20 shows revenues of P3 Hospital growing by less than 200 percent over the 4-year period while excess receipts over expenses grew by over 300 percent. Judging from the changes in occupancy rates of P3 Hospital (from Figure 4.1) we may conclude that the rise in revenues was mainly the result of increases in rates rather than increases in volume of patient days.

Table 5.21 shows the comparative income statements of P2 Hospital. We note revenues rising by about 100 percent over the four year period with a decline occurring in the last year. Comparing the pattern of revenue changes to that of bed occupancy, we may conclude that the sharp increase in revenues from 1989 to 1991 resulted from increases in rates charged as revenue increases outpaced bed occupancy changes. However, from 1991 to 1992, occupancy increased but revenues decreased.

Bengzon (1972) reports that hospital revenues from room and board account for only 30 to 37 percent of total revenues. The balance comes from other services such as laboratory, x-ray, use of medicine, operations and deliveries, etc. This is confirmed by J.P. Crisostomo (1976 p. 55) who notes that the 1974 PHA survey revealed that hospital laboratory was the leading income generator and other earners were the x-ray, operating room and pharmacy departments. These early observations are supported by recent data from this study.

5.2 Financial Performance

The financial performance of the hospital determines its capability to remain financially viable in the future. Indicators of this performance consist of liquidity ratios, efficiency ratios, leverage ratios, and profitability ratios.

5.2.1 Liquidity Ratios

The liquidity ratios of a firm measure its capability to meet short term financial obligations. It therefore indicates the margin of safety that short-term creditors have. A firm which is not able to meet its short term financial obligations can be declared technically insolvent and forced to liquidate its assets.

TABLE 5.19
GOVERNMENT TERTIARY HOSPITAL (G3)
SUMMARY OF ACTUAL INCOME
CY 1991

<u>Gov. Celestino Gallares Memorial Hospital</u>	<u>HOSPITAL</u> <u>INCOME</u>	<u>MEDICARE</u> <u>INCOME</u>	<u>TOTAL</u> <u>INCOME</u>
Doctor's Fees (Professional)	65,270.00		65,270.00
Surgical Treatment & Dressing Fees	24,242.00		24,242.00
Subsistence & Accomodation	108,547.80	867,079.98	975,627.78
Laboratory Fees	367,285.20	299,561.32	666,846.52
Operating Room Charges	39,537.00	297,080.00	336,617.00
Ambulance Charges	7,581.00		7,581.00
EKG Fees	36,319.00		36,319.00
Medical Certificate Fees	10,675.00		10,675.00
X-ray Fees	267,541.00	73,704.35	341,245.35
Miscellaneous Fees (Other Income)	361,660.25	164,394.95	526,055.20
Dental Fees	53,729.00		53,729.00
Total	1,342,387.25	1,701,820.60	~ 3,044,207.85

Source: Hospital Records

TABLE 5.20
PRIVATE TERTIARY HOSPITAL (P3)
STATEMENTS OF REVENUES AND EXPENSES
For the Years Ended December 31, 1987 and 1988

RECEIPTS	1987	1988	1989	1990	1991
Special Services	100.00 %	144.70 %	154.07 %	216.43 %	285.54 %
Routine Services	100.00 %	143.40 %	170.97 %	263.57 %	302.67 %
Miscellaneous Income	100.00 %	184.98 %	227.09 %	428.65 %	712.74 %
TOTAL	100.00 %	145.12 %	158.74 %	229.62 %	296.28 %
Deduct: Charity Discounts & Refunds	100.00 %	234.53 %	199.49 %	235.46 %	229.86 %
NET REVENUE	100.00 %	141.75 %	157.21 %	229.40 %	298.79 %
DEDUCT: OPERATING EXPENSES					
Pharmacy	100.00 %	139.52 %	134.02 %	195.49 %	222.22 %
Administrative & General Maintenance	100.00 %	106.32 %	134.63 %	173.91 %	272.91 %
Nursing Service - In-Patients	100.00 %	142.12 %	167.79 %	238.66 %	324.64 %
Operating & delivery Rooms	100.00 %	166.68 %	183.42 %	237.74 %	320.13 %
Laboratory	100.00 %	173.64 %	216.46 %	300.25 %	379.23 %
Dietary	100.00 %	137.83 %	171.46 %	210.99 %	286.02 %
X-ray	100.00 %	138.07 %	198.58 %	202.25 %	290.76 %
Household & Maintenance	100.00 %	124.23 %	175.78 %	259.31 %	340.03 %
Linen & Laundry	100.00 %	143.69 %	191.19 %	243.16 %	322.45 %

(continuation)

Rental Unit	100.00 %	179.91 %	180.14 %	211.29 %	299.58 %
Central Service	100.00 %	137.21 %	143.92 %	188.87 %	244.12 %
Emergency Room - OPD	100.00 %	146.31 %	131.25 %	236.45 %	356.92 %
Ambulance & Motor Service	100.00 %	116.39 %	119.59 %	246.79 %	368.01 %
ECG & Pulmonary	100.00 %	120.56 %	396.88 %	441.26 %	828.52 %
Medical Records	100.00 %	162.46 %	192.40 %	292.23 %	579.26 %
Physio-Therapy	100.00 %	128.34 %	146.94 %	172.23 %	255.86 %
Gastro-Intestinal Unit, DUU & Bronchoscopy Unit	100.00 %	217.40 %	324.89 %	3154.31 %	5816.62 %
Total Operating Expenses	100.00 %	133.38 %	151.30 %	206.58 %	275.52 %
EXCESS OF RECEIPTS OVER EXPENSES	100.00 %	182.24 %	185.77 %	339.79 %	411.36 %

TABLE 5.2122
PRIVATE SECONDARY HOSPITAL (P2)
COMPARATIVE INCOME STATEMENT
Years Ended Dec. 31, 1989, 1990, 1991, 1992

	1989	1990	1991	1992
Hospital Revenues	100.00 %	193.17 %	221.14 %	201.04 %
Gross Profit - Pharmacy				
Less Operating Expenses:				
Salaries & Wages (Inc. Subs & Relievers)	100.00 %	113.24 %	146.31 %	181.85 %
Allowances and Bonus	100.00 %	110.02 %	111.41 %	132.52 %
Maternity/Sickness Benefits	100.00 %	74.82 %	0.00 %	0.00 %
Foods & Dietaries	100.00 %	243.53 %	245.86 %	378.54 %
Medicines & Med. Supplies	100.00 %	201.82 %	245.88 %	43.42 %
Taxes, Licenses & Other Fees	100.00 %	234.24 %	302.59 %	214.67 %
Maintenance & Repairs (Inc. Gas & Oil)	100.00 %	162.08 %	292.36 %	139.12 %
Fuel and Lubricants				
Light, Power and Water	100.00 %	121.30 %	135.86 %	129.62 %
Postage, Telephones & Telegram	100.00 %	165.86 %	153.24 %	167.11 %
Transportation and Travel	100.00 %	96.36 %	81.20 %	180.07 %
SSS, Medicare & EC Cont.	100.00 %	101.23 %	130.32 %	168.28 %
Office Supplies	100.00 %	106.07 %	94.59 %	169.67 %
Depreciation	100.00 %	122.71 %	138.16 %	344.81 %
Insurance Expense	100.00 %	86.15 %	86.15 %	83.63 %
Interest Expense	100.00 %	56.20 %	0.00 %	744.33 %
Representation Expenses	100.00 %	69.46 %	24.93 %	19.89 %
Books, Periodicals & Magazines	100.00 %	96.90 %	70.09 %	68.98 %
Donations/Publications	100.00 %	115.09 %	90.28 %	71.62 %
Total Operating Expenses	100.00 %	172.21 %	196.95 %	187.49 %
Net Income from Operation (Loss)	100.00 %	-8.3%	-11.3%	-17.0%
Add: Other Income				
Prof. Fees - Dr. Inting	100.00 %	214.44 %	225.14 %	0.00 %
Salaries - Dr. Inting	100.00 %	114.38 %	112.51 %	0.00 %
Total Net Income (Loss)	100.00 %	-1406.8%	-1490.5%	0.00 %

Source: Audited Financial Statement

TABLE 5.22
PRIVATE TERTIARY HOSPITAL (P3)
FINANCIAL RATIOS

	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Liquidity Ratios					
1. Current Ratio	3.28	5.24	2.87	3.30	2.62
2. Acid Test Ratio	2.55	4.03	2.11	2.58	2.12
Efficiency Ratios					
3. Average Collection Period	50.72	58.18	71.85	89.92	95.74
4. Inventory Turnover					
5. Fixed Asset Turnover	3.31	2.59	1.70	1.99	1.47
6. Total Asset Turnover	1.30	1.16	0.93	0.94	0.75
Leverage Ratios					
7. Debt Ratio	0.18	0.11	0.16	0.16	0.21
8. Long-Term Debt to Total Capitalization	0.00	0.00	0.00	0.00	0.03
9. Times Interest Earned					
10. Cash Flow Overall Coverage Ratio					
Profitability Ratios					
11. Gross Profit Margin	0.17	0.22	0.20	0.25	0.24
12. Operating Profit Margin					
13. Net Profit Margin					
14. Operating Income Return on Investment	0.22	0.26	0.19	0.24	0.18
15. Return on Total Assets	0.22	0.26	0.19	0.24	0.18
16. Return on Common Equity	0.27	0.29	0.22	0.28	0.23

Source: Audited Financial Statements

TABLE 5.23
PRIVATE SECONDARY HOSPITAL (P2)
FINANCIAL RATIOS

	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Liquidity Ratios				
1. Current Ratio	11.83			0.35
2. Acid Test Ratio	3.27			0.13
Efficiency Ratios				
3. Average Collection Period	13.39	6.20	5.69	15.72
4. Inventory Turnover	9.70	19.57	21.86	11.01
5. Fixed Asset Turnover	4.22	6.20	6.53	1.92
6. Total Asset Turnover	2.64	4.24	4.35	1.51
Leverage Ratios				
7. Debt Ratio	0.03	0.00	0.00	0.60
8. Long-Term Debt to Total Capitalization				
9. Times Interest Earned	-45.63	6.78		1.05
10. Cash Flow Overall Coverage Ratio				
Profitability Ratios				
11. Gross Profit Margin				
12. Operating Profit Margin	-0.12	0.01	0.01	0.01
13. Net Profit Margin	-0.02	0.11	0.10	0.00
14. Operating Income Return on Investment	-0.31	0.02	0.03	0.01
15. Return on Total Assets	-0.04	0.47	0.44	0.00
16. Return on Common Equity	-0.04	0.47	0.44	0.00

Source: Audited Financial Statements

In a summary of the results of the 1985 PHA survey (Table 5.2) Santos (1987) points out that tertiary hospitals had the least liquidity problem, while secondary hospitals had the worst. J.P. Crisostomo (1976), on the other hand, reveals that most hospitals in his study had negative working capital, the difference between current assets and current liabilities.

P3 Hospital's liquidity ratios are shown in Table 5.22. With a current ratio of 2.62 and an acid test ratio of 2.12 in 1991, P3 Hospital was very much capable of meeting its short-term obligations.

Table 5.23 shows similar ratios for P2 Hospital. The liquidity position in the past 3 years was more than satisfactory with its current ratio of 11.83:1 in 1989. For 1990 and 1991 balance sheet statements show zero liability which indicates that the hospital was in a sound financial position since it did not rely on borrowing to finance its operations. It is worth mentioning that loans from banks and purchases on credit for hospital supplies and equipment were not necessary due to two factors: 1) increase in capital investment of its owners for the year 1990 for P50,000 and P150,000 in the succeeding year, 1991; and 2) the hospital was enjoying a comfortable 10 to 11 percent net profit for the said years.

However, in 1992 its current ratio suddenly shrunk to 0.35:1. This was due to three factors: 1) acquisition of medicines and medical supplies and hospital equipment on account, 2) availment of bank loans, and 3) a sudden decrease in net profit to 0.009 percent due to high operating expenses.

A quick ratio of 3.26:1 was attained in 1989. In 1990 and 1991 there were no liabilities. Just like the current ratio, the acid test ratio in 1992, 0.1261:1, was very low. However, the acid test ratio may not be of great importance in this particular case since the inventories were saleable and could easily be converted into cash because medicines are basic necessities for survival.

5.2.2 Efficiency Ratios

Efficiency ratios measure the capability of the firm in managing its assets. Since assets entail the commitment of funds, and funds cost money, assets have to be used efficiently to generate as much revenue as possible. The PHA survey of 1985 (Table 5.2), as summarized in Santos (1987), shows that secondary hospitals and medical centers had shorter collection periods which may indicate efficient collection of receivables. In an earlier PHA survey (1974) the average collection period of hospitals was reported to be 44 days. Bengzon (1972) points out that receivables and bad debts were common problems among all six hospitals covered in his study.

P3 Hospital's efficiency ratios are shown in Table 5.22. Its average collection period indicates a rising trend, from 50.72 days in 1987 to 95.74 days in 1991. This should be a cause for alarm. The acquisition of equipment also made its fixed asset and total asset turnover ratios

deteriorate, calling for the need to further increase revenues, either through increases in rates or occupancy or a combination of both.

For P2 Hospital, within the 4 year period 1989-1992, the highest asset turnover ratio was in 1991 which registered a peak of 4.35 times. However, in 1992, this ratio dropped to 1.51. Additional fixed assets acquired during this year may not have been used to its maximum level. This ratio has its limitation due to the fact that it is an aggregate measure. There is a need to further evaluate this ratio in relation to a few disaggregate turnover ratios. The 1992 fixed asset turnover of 1.92 times is the lowest compared to that of the last three years.

P2 Hospital had a reasonable accounts receivable turnover in 1990 and 1991 which is suggestive of an efficient credit and collection procedure. However, in 1992, it dropped to a low level. Its average collection period was 10.46 days. Receivables represent 4 percent of total sales in 1992.

5.2.3 Leverage Ratios

Leverage ratios measure the firms use of debt in its capitalization. A large proportion of debt entails more fixed payments and therefore greater risk of financial disaster.

Debt ratio is the ratio of total debt, current and long-term, to total assets. In the case of P3 Hospital this ratio went from 11 to 21 percent during the 4 years under review. These were all current debts except in the last year, 1991, when 3 percent of capitalization came from long-term debt.

In 1992, 60 percent of P2 Hospital's total assets were financed by creditors. Earnings for that year almost equalled its interest payment obligations. P2 Hospital was in a very precarious financial situation.

5.2.4 Profitability Ratios

Santos (1987) reports that in the 1985 PHA survey 76 out of 158 respondents indicated appreciable returns on their investments while the rest registered losses. Majority of the losing hospitals were at the secondary and tertiary levels. These losses were partly attributed to unpaid services rendered to indigent patients, unpaid claims, etc., which represented 6.22 percent of gross revenue. Among the unpaid revenues bad debts comprised 66 percent. Secondary and tertiary hospitals also experienced a significant decline in bed occupancy during the period covered in the survey.

Tertiary hospitals were reported in the 1985 PHA survey to have been able to improve their profitability when they expanded operations. High financial leverage in medical centers pulled down returns to stockholders from 15.23 percent to 11.85 percent in 1984. Medical centers, nevertheless, remained more profitable than tertiary hospitals probably due to economies

of scale and the competitive advantage of having more modern and adequate facilities. These facilities attracted more established doctors whose clientele came from the upper and middle income segments of the market.

Bengzon's (1972) analysis of six stock and non-stock hospitals suggests that hospitals are per se poor investments. The 1974 PHA survey (J.P. Crisostomo, 1976 p. 54) reveals that larger hospitals were more profitable than smaller hospitals, while missionary hospitals showed even better profitability performance than either government or private hospitals.

Hospitals with schools reflected better profitability and operating efficiency than those without schools among those studied by J.P. Crisostomo (1976). This compares well with the early experience of American teaching hospitals when interns and student nurses were poorly paid. However, with the increase in wages and cost of space and support services the same hospitals experienced lower profitability (Schulz and Johnson, 1983 p. 242).

To test the profitability of hospitals, profitability ratios are used. For P3 Hospital, as a not-for-profit hospital, the gross profit margin and the return on total assets may provide an indication of the returns generated. An increasing trend from a low of 17 percent to 24 percent gross profit margin is observed, while the acquisition of fixed assets has depressed its return on total assets from a high of 26 percent in 1988 to 18 percent in 1991.

The previous two years, 1990 and 1991, indicated a 10 to 11 percent net profit margin for P2 Hospital, while 1992 showed a 0.9 percent margin which is indicative of a high operating cost for this year. The hospital will have to operate at higher revenue levels before a satisfactory net profit is generated.

The operations of P2 Hospital is viable but there is a need to: 1) increase revenues to service existing liabilities and maximize the use of fixed assets; 2) closely monitor the very high operating costs and bring this down to the minimum to afford a higher net profit; and 3) attend to the urgent need to convert part of the current assets into cash flow for 1992.

Table 5.24 shows the sources and uses of working capital for P3. We note that acquisition of equipment and improvements in property were financed mainly from excess of receipts over expenses and some donations. In 1991 substantial donations helped defray the cost of a P14.6 million addition to property and equipment.

5.3 Summary

Philippine hospitals can be characterized as generally conservatively structured in terms of finances in the sense that they incur relatively less debt than the amount which may be available to them. Hospitals do not appear to be poor credit risks if managed properly. The observations show that the degree of conservatism declines as we go from smaller to larger hospitals. This may be the result of the increase in the use of professional managers in larger

TABLE 5.24
PRIVATE TERTIARY HOSPITAL (P3)
STATEMENTS OF CHANGES IN FINANCIAL POSITION
For the Years Ended December 31, 1987 and 1988

	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Working Capital was Provided from:					
Operations					
Excess of Receipts over Expenses	2,519,239.00	4,591,151.00	4,679,884.00	8,560,015.00	10,363,183.00
Add: Depreciation - A charge to income not requiring outlay of working capital	<u>267,808.00</u>	<u>495,903.00</u>	<u>884,552.00</u>	<u>1,205,281.00</u>	<u>1,784,269.00</u>
Total	2,787,047.00	5,087,054.00	5,564,436.00	9,765,296.00	12,147,452.00
Donations	115,697.00	1,818,110.00	240,840.00	640,080.00	5,351,734.00
Prior Year's Adjustments	-	<u>433,784.00</u>	-	-	-
Total Working Capital Provided	<u>2,902,744.00</u>	<u>7,338,948.00</u>	<u>5,805,276.00</u>	<u>10,405,376.00</u>	<u>17,499,186.00</u>
Working Capital was used for:					
Additions to Property and Equipment	1,416,901.00	4,094,454.00	6,461,220.00	4,573,935.00	14,656,941.00
Decrease in Other Assets	<u>3,102.00</u>	-	<u>16,500.00</u>	-	-
Total Working Capital used	<u>1,413,799.00</u>	<u>4,094,454.00</u>	<u>6,444,720.00</u>	<u>4,573,935.00</u>	<u>14,656,941.00</u>
INCREASE(DECREASE) IN WORKING CAPITAL	<u>1,488,945.00</u>	<u>3,244,494.00</u>	<u>(674444)</u>	<u>5,831,441.00</u>	<u>2,842,245.00</u>

(continuation)

WORKING CAPITAL INCREASED (DECREASED) BY

Cash on Hand & In-Banks	(360,793)	2,153,971.00	(70,260)	2,772,646.00	3,657,313.00
Investments	1,688,845.00	(1,042,422)	(543,240)	(72,398)	1,422,902.00
Accounts Receivable - Trade	(50,026)	937,649.00	858,199.00	2,793,234.00	2,150,092.00
Accounts Receivable - Others	198,238.00	359,729.00	387,111.00	1,019,031.00	1,109,922.00
Withholding Tax Receivable	969.00	7,495.00	(6,383)	16,001.00	15,543.00
Inventories	830,326.00	754,699.00	709,080.00	1,129,529.00	1,291,911.00
Prepaid Expenses	148.00	8,670.00	12,506.00	2,092.00	6,051.00
Accrued Expenses & Accounts Payable	(818,762)	140,703.00	(2,019,457)	(1,878,694)	(5,182,904)
Loan Payable - Mother House	-	50,000.00	-	50,000.00	-
Loan Term Payable				-	(6,128,585)
INCREASE (DECREASE) IN WORKING CAPITAL	1,488,945.00	3,244,494.00	(672,444)	5,831,441.00	4,470,830.00

hospitals, while smaller hospitals continue to be run usually by physician-owners, who may be more versed in making their patients healthy than making the investors' pocketbooks fatter.

Creditor risk likewise decreases with size. Relative fixed asset investment declines with hospital size, although per unit operating cost increases. The higher per unit operating cost arises from higher personnel expense, higher drug and medicine, and higher medical and surgical supply expenses. The low operating leverage, however, enables larger hospitals to be more pliant with changing economic conditions. Larger hospitals also enjoy better liquidity positions compared to their smaller counterparts. This gap appears to continue to widen as longer waits for medicare reimbursements occur and smaller hospitals continue to be more dependent on medicare revenues.

If government policy is directed towards encouraging the mushrooming of smaller hospitals for greater market penetration, tremendous financial and managerial support will be required. However, if lowering hospitalization cost is desired, cost lowering strategies in the purchase of drugs, medicine, and supplies will have a significant impact on the costs of large hospitals. Strategies directed towards improving the retention of personnel may also decrease personnel expenses which may have risen due to the high personnel turnover.

Government hospitals are operating under budgetary constraints that prevent them from providing their patients the necessary drugs and medicines and from purchasing sufficient quantities of medical and surgical supplies to function sanitarly.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the conclusions that can be made from the various studies on Philippine hospitals and the case studies of the two government hospitals, G3 Hospital and G2 Hospital, and the two private hospitals, P3 Hospital and P2 Hospital. The first section reviews some of the highly significant results of the analysis of Philippine hospital management, while the last section presents some policy recommendations to improve the performance of government and private hospitals.

6.1 Characteristics and Problems of Hospital Management and Performance

In this section a summary of the characteristics of management practices in and performance of government and private hospitals is presented. Problems associated with these practices are also discussed.

6.1.1 Government Hospitals

Many of the existing government hospitals had been established by local politicians to gain political advantage. As a result, many of these hospitals were inadequately funded in the succeeding years of operations.

With the Department of Health acting as the governing board of government hospitals, the planning processes lacked the input of the various constituencies of the hospital. Hopefully, with the process of devolution, planning can be done to involve not only the hospital staff and the local politicians but also the various sectors of the community such as business, other government agencies operating in the community, civic groups, church, and other organizations which, in one way or another, are affected by or can affect the operations of the hospital.

Because of the current set up where the DOH serves as the governing board of these hospitals, the chief of hospital, as the DOH representative, assumes a very critical role in the success of the hospital. DOH, however, does not seem to have an effective monitoring system to detect, at an early stage, potential problems that the chief of hospital may have in the operations of the hospital.

In addition to the lack of input from the local community, the planning process in government hospitals also tends to be focused on compliance with planning procedures rather than on realistically workable objectives and strategies.

Capital expenditures are also made based on what seems to be economically irrational behavior. For example, expenditures are made for new construction, when repairs of existing facilities and equipment are badly needed.

Due to certain bureaucratic requirements, such as the need to expend budgetary items at the end of the fiscal year, expenditures are made irrationally beyond the needs of the hospital or on the wrong items, leading to waste and sometimes to corrupt practices.

Although annual budget preparation is done by the hospital officials, funding is usually beyond their control. Because of this, multi-year budgeting and staggered implementation of projects are difficult to do. This again leads to more uneconomical use of scarce financial resources and removes the incentive to economize.

The centralization of pricing, which no longer reflects the nature of competition for hospital services in the community, leads to inequity as individuals with the capacity to pay the full market cost of services avail of these services at government subsidized prices.

The rigid structure of quality control procedures leads to its accomplishment merely for compliance purposes rather than for assuring high quality performance. Performance evaluations are also used in the same manner. Hospital staff, for example, complain that there are no rewards or sanctions associated with superior or below par job performance.

Financial control practices appear to be too bureaucratic and are prone to dishonest behavior. For example, purchasing decisions do not ensure that purchases are made at the lowest prevailing prices.

6.1.2 Private Hospitals

In contrast to government hospitals, the motivation for the establishment of private hospitals appear to be based on some financial motive, either to promote the physician-owners' practice or at least to ensure financial viability in the future years of operation. Due to the decision makers' inability to anticipate unfavorable economic conditions, some private hospitals fail. However, rising demand brought about by improvements in the economy focuses the failure factor on the management of the hospital.

Like other private enterprises, the performance of private hospitals and their managers is based on market forces. The spirit of competition in the hospital industry is rather strong. This has led many hospital managers and their staff to become more and more customer-oriented in their decisions.

A trend toward customer-orientation of most managerial decisions, such as capital budgets, personnel, and pricing, appears to be rising among private hospitals. What one has to look-out for within this strongly competitive environment are decisions which could lead to the

uneconomical use of scarce resources. This may be avoided through a system of cooperation among competing hospitals.

6.2 Recommendations

This section attempts to derive some policy recommendations from what have been observed as characteristics and problems of both private and government hospitals.

6.2.1 Private Hospitals

The need for cost containment calls for private hospitals to take advantage of economies of scale where the opportunities exist. This means more cooperation among hospitals in activities such as purchasing supplies and equipment. Bulk purchases of supplies will provide private hospitals with the bargaining power to negotiate for more favorable prices of both locally produced and imported supplies. A more organized and formalized system of equipment sharing will also go a long way in making possible the availability of modern diagnostic and treatment equipment to all patients, even those in small hospitals, at reasonable costs. It is recommended that representatives of hospitals serving the same community, through their respective chapters of PHA, meet more regularly to discuss and operationalize cooperation among the members. This should be encouraged by the government.

The high cost of money has also created a great financial burden in private hospitals, especially the long collection period of medicare receivables. It is recommended that bottlenecks in the payment process be eased. A mechanism may be created where these receivables can be used by hospitals for credit to whatever payment they may have due to government agencies.

Government can also assist private hospitals in providing staff training and equipment maintenance. The current equipment maintenance and repair facilities of government hospitals may be extended to the private hospitals to attain economies of scale.

Incentives to encourage dispersal and outreach programs of private hospitals should also be provided to make their services available to remote communities.

6.2.2 Government Hospitals

There appears to be a need to reform major components of the management practices of government hospitals. These include practices in planning, budgeting for capital expenditures, budgeting for operating expenditures, purchasing, pricing, personnel policies, and control systems.

Observations and comparisons of management practices and performance of government and private hospitals point out that the system under which government hospitals

are operating, that is, as providers of health care services which are subsidized by public funds, leads to inefficiencies under the present economic conditions of the country. Private hospitals, while operating under strict market conditions, are able to provide efficient and effective health care services to its customers. Unfortunately, the private hospital customers have the capacity to pay for these services, while government hospital customers depend on the government budget to support the costs of the services they receive.

To succeed in attaining the stated objectives of the government hospital under severe resource constraints requires heavy grounding in the essential tools of management coupled with excellent leadership skills and the appropriate attitude towards the job. The results of the study indicate the urgent need for government hospital managers to undergo intensive management training which would consist of possibly 8 weeks of classroom sessions and hands-on field training lasting about three months. The training program should be carefully designed taking into account the full range of training needs of the participating government hospital administrators.

Under the present administrative structure, planning in government hospitals may be improved by involving other sectors in the community. Their inputs should be taken very seriously. They should also be given updates of any progress the hospital makes towards improvements in providing services. The hospital should also solicit resources which the community can offer to augment its limited budget. This calls for the formation of a creative and resourceful unit within the hospital which can perform community relations beyond that normally performed in the admissions unit.

Autonomy in budgeting and funding would also help the government hospital economize on scarce financial resources. If hospitals are given a four-year commitment of funds, they may be able to stagger expenditures and allocate funds better over time to meet their needs.

Pricing of services should also be updated to reflect current costs and competitive conditions in the community. Pricing should be "democratized" so that patients pay according to their means based on market conditions. Net revenues from pay patients should be used to cover the cost of providing services to charity patients. To be able to do this, the government hospitals should be perceived by the customers as, at least, equal to private hospitals in terms of quality. The present perception, however, is that government hospitals provide inferior service compared to private hospitals.

To make these changes a form of privatization of government hospitals may be experimented upon. One, however, has to keep in mind that the government is mandated to provide health care to those who cannot afford, thus the creation of government hospitals.

Full privatization, i.e., complete private ownership and management will mean that its services will no longer be available to charity patients under mandated conditions. Under this system of complete privatization charity patients may avail of private hospital facilities through a voucher system. A voucher system, however, may entail a number of administrative

problems. For example, inefficiency in the distribution system, lack of control of hospital charges to the government, and discrimination against charity patients.

As an alternative to complete privatization, the government may consider the hospital as a joint venture undertaking² between the government and the private sector. Government will own not more than 49 percent of the control of the hospital. This is mainly to avoid the bureaucratic pitfalls that government controlled corporations fall into. Government's contribution may be in the form of land, building and other assets which government can provide more economically than the private sector.

The private sector may consist of investors, hospital management groups, suppliers of technology, labor groups, and physicians. Each should be able to contribute towards the success of the hospital. The hospital should then be operated as a private entity with government representation in the board as a minority owner. In this way the hospital can run efficiently under market conditions with full private incentive systems for its staff and employees and pricing. Based on the audited financial statements of private hospitals, it can be estimated that with 49 percent share of ownership and a profit margin of 30 percent, the government's share of the profits may fully cover the cost of about 25 percent of the hospital's occupancy. That means that a 200 bed hospital can allocate 50 beds for charity patients. To cover the cost of rendering services to the charity patients the government will not have to make annual allocations of funds. Under this system charity patients can avail of the same services that pay patients enjoy. The joint venture hospital can also be a leader in acquiring and applying "modern medical technology" in the community.

A critical factor in the implementation of the joint venture hospital is the identification of the private sector components. These groups should not be motivated solely by profit but should have a strong interest and commitment in providing the best medical care to the community.

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