

NPS ARCHIVE  
1961.06  
FURREY, W.

RISING HOSPITAL COSTS —  
THE COMPTROLLER'S CHALLENGE

WILLIAM R. FURREY

DUDLEY KNOX LIBRARY LIBRARY  
NAVAL POSTGRADUATE SCHOOL NAVAL POSTGRADUATE SCHOOL  
MONTEREY CA 93943-5101 MONTEREY, CALIFORNIA









RISING HOSPITAL COSTS -- THE COMPTROLLER'S CHALLENGE

by

William R. Furrey  
Lieutenant  
Medical Service Corps  
United States Navy

A thesis submitted to the faculty of The School of Government, Business, and International Affairs of The George Washington University in partial satisfaction of the requirements for the degree of Bachelor of Arts in Business Administration.

June, 1961

Thesis directed by A. Rex Johnson, Ph. D., Director, Navy Graduate Comptroller-ship Program, The George Washington University, Washington, D. C.





DUDLEY KNOX LIBRARY  
NAVAL POSTGRADUATE SCHOOL  
MONTEREY CA 93943-6101

TABLE OF CONTENTS

	Page
LIST OF TABLES . . . . .	ii
Chapter	
I. INTRODUCTION . . . . .	1
II. RISING HOSPITAL COSTS. . . . .	4
Civilian Costs	
Naval Hospital Costs	
Not Comparable but a Significant, Common Problem	
III. SIGNIFICANCE OF RISING COSTS . . . . .	13
Growing Concern	
Areas of Increases	
Primary Factors	
Secondary Factors	
IV. AREAS OF CONTROL . . . . .	22
Control in the Area of Patient Care	
Progressive Patient Care Unit	
Coordination Between Physicians and Hospitals	
Coordination Among Hospitals	
Control in Non-Patient Care Functions	
Personnel	
Purchasing	
Internal Control	
Accounting	
Budgeting	
Cost Analysis	
V. SUMMARY. . . . .	40
BIBLIOGRAPHY . . . . .	45



LIST OF TABLES

Table	Page
1. Trends in Hospitals -- Personnel and Finances, 1946-1959 . . . . .	6
2. Ten Year Report on Service and Costs in Seven Small Hospitals. . .	7
3. Beth Israel Hospital . . . . .	8
4. Trends in Hospital Finances, 1946-1959 . . . . .	9
5. Cost Per-Patient Day at Naval Hospitals, 1924-1959 . . . . .	11







## CHAPTER I

### INTRODUCTION

The contemporary American hospital is an inspiring product of the ideas and humane ideals of a free society. Its primary mission is to restore and conserve the health of the individual patient. It is, perhaps, one of the best examples in our society of the American genius for individual and cooperative community enterprise. It reflects particularly the dramatic and constantly accelerating advances in scientific and technological knowledge and skills of the twentieth century. The American general hospital especially is a place where the medical profession and the whole health service team mobilize their great arts and skills for the welfare of the individual patient.

Responding to these dynamic forces, American hospitals have evolved from the custodial type of institutions of the nineteenth century toward community centers of comprehensive health services. No doubt this development was inevitable, but the really remarkable thing is that hospitals have adapted themselves as efficiently and economically as they have to the requirements of medical science on the one hand and the economics and needs of the people on the other.<sup>1</sup>

While the goal of hospital administration -- that of providing facilities for the best possible care of the sick -- remains constant,

---

<sup>1</sup>Factors Affecting the Costs of Hospital Care. Edited by John H. Hayes (New York: The Blakiston Company, Inc. 1954), p. 1.





hospitals are operating in an era of rising costs. These operating costs are increasing not only because of the inflationary factors of the period, but, also, because of the direct increased costs of purchasing advanced medical technology, services, supplies, equipment and real estate. These rising operating costs are directly reflected in a rising cost per-patient day of hospitalization.

This thesis is not intended as an apology for hospital costs at whatever level they may be incurred by a particular institution. Rather, the intent is to examine the rising hospital costs or cost per-patient day of the civilian hospital community, of the nonfederal short-term general and other special type, the military hospital community represented by the Naval hospital system, and to determine what factors have contributed to these increasing costs; also, to give emphasis to a group of systems and techniques which can be applied in the various areas of the hospital, military or civilian, in an effort to control the costs. The general use of hospitals imposes a special obligation upon trustees, management, and staff to provide the maximum service from the facilities and personnel.<sup>2</sup>

This study involves the searching out of material from various sources. Methods followed include an examination of both published and unpublished material pertaining specifically to hospital costs or the cost per-patient day, since 1890 and the areas within hospitals contributing to the increases in these costs, an academic review of current library literature containing information regarding recent trends in concepts and techniques of control procedures, and interviews with members of the Comptroller's Division of the Bureau of Medicine and Surgery, Department of the Navy.

---

<sup>2</sup>C. Rufus Korem, "Why Hospital Costs Have Risen," American Economic Security.



The major part of this study is dependent upon written sources and its approach is from the standpoint of background, analysis and application of suggested controls.

Chapter II presents a brief history of hospital costs, their rate of increase and the dollar values involved. This background information is essential to an understanding of the problem of providing the best possible patient care at the lowest possible cost.

Chapter III is a discussion of the primary and secondary factors which have contributed to the rising costs.

Chapter IV presents a discussion of the major means and techniques that may be employed in an effort to control the rising costs.

Chapter V is a summary.

Even though the problem of reducing the cost of patient care in hospitals has been with us a long time, I am sure no one is able to give one particular formula which, if used, would create savings of hundreds and thousands of dollars.

The cutting cost problem is just as complicated and detailed as is the general problem of hospital administration.<sup>3</sup>

---

<sup>3</sup>E. A. Reese, "Look for the Token Savings," Hospital Management, June, 1954.



## CHAPTER II

### RISING HOSPITAL COSTS

Hospital costs are rising. This is a fact recorded by those employed for the collection of statistical data, authors of text books, and those engaged in writing articles for newspapers, magazines, and journals of professional organizations. It is an inescapable fact affecting the military as well as the civilian community of the United States.

An examination of these rising hospital costs and some of the elements comprising them from the standpoint of the per cent of increase from one year to another, for a ten (10) year, forty (40) year, or even a greater time period is enough to disturb the most conservative individual.

It is interesting to note that Bridgeport Hospital, Bridgeport, Connecticut, recorded that during the period from 1899 to 1940, the cost per-patient day increased 272 per cent.<sup>1</sup>

From 1946 through 1957, the patient day cost of voluntary general and special hospitals for the entire United States increased by 161.5 per cent. This is a rate of 13.5 per cent per year, or more than one per cent per month for the entire 12-year period. For the second half of this period, 1951 through 1957, the increase was 48.2 per cent, or eight per cent per year.

---

<sup>1</sup>Oliver H. Bartine, "Supplementary Revenue," Hospitals, Journal of The American Hospital Association, December, 1941, p. 52.



During this 12-year period the cost of the "hotel" type service, including meals served in bed, rose only 30 per cent.

During the same period the cost of various professional and technical services increased by 283 per cent, and nursing service by 295 per cent.<sup>2</sup>

Using the United States Naval Hospital system as an example and a source of study within the military community, an examination of the cost per-patient day for the period prior to 1830 (during this period the Naval establishment contracted with civilian hospitals and alms houses for the inpatient care of its officer and enlisted personnel) through 1924, will reveal an increase of 489 per cent.

From 1924 through 1959, the cost per-patient day increased 591.7 per cent. This represents an annual rate of increase of more than 16.9 per cent per year during this 35-year period of time.

This type of an examination (by percentages) is interesting, disturbing, and will gain the attention of almost anyone. It does not, however, reveal the base upon which such tremendous increases are computed. Without an examination of the dollar values involved in these computations an intelligent study of this problem, which affects the civilian and military community of the United States, would be of little value, if not impossible.

#### Civilian Hospital Costs

Prior to examining civilian hospital costs it is important to study some facts concerning the "nonfederal short-term general and other special" hospital complex.

---

<sup>2</sup>Henry N. Pratt, M. D., "Factors That Will Shape Future Hospital Costs," Hospitals, Journal of The American Hospital Association, Volume 33, October 16, 1959, pp. 53-55.





As shown by Table I, the total number of this type of hospital has increased by 920 in the 14-year period from 1946 through 1959. While this represents only a 20.7 per cent increase in the total number of hospitals, the number of personnel employed in the same number of hospitals rose from 504,000 to 1,031,000, an increase of 104.5 per cent, and payroll expenses increased 410.9 per cent from \$619,000,000 to \$3,163,000,000. The value of the assets held by these hospitals in 1959 was \$10,154,000,000 in comparison with \$3,698,000,000 in 1948, an increase of 201.6 per cent.

TABLE I  
TRENDS IN HOSPITALS<sup>a</sup> -- PERSONNEL AND FINANCES 1946-1959<sup>b</sup>

Year	Number of Hospitals	Personnel Employed		Expenses		Assets
		in thousands	per 100 patients	Payroll in millions	Total in millions	Amount in millions
1946	4444	504	148	\$ 619	\$1168	\$ --
1948	4499	585	162	944	1723	3698
1950	5031	662	178	1202	2120	4348
1952	5122	673	175	1496	2577	5138
1954	5212	777	198	1894	3120	6177
1956	5299	878	207	2301	3742	7534
1958	5290	984	218	2831	4655	9419
1959	5364	1031	223	3163	5091	10154

<sup>a</sup>Nonfederal short-term general and other special.

<sup>b</sup>"Hospital Statistics." Hospitals, Journal of The American Hospital Association, Part II, August, 1960, p. 365.

The value of hospitals then, cannot be measured solely by their humanitarian contributions to a community. Consideration must also be given to their economic contribution to a community in terms of employment, expenditures and investments.



Turning now to hospital costs, (cost per-patient day) let's see just how much they have risen, and, just as important, the dollar value upon which this increase is based.

Within the limits of the records available, it is not difficult to determine that the cost per-patient day had a humble beginning and did not reach a significant level until recent years.

Bridgeport Hospital, Bridgeport, Connecticut, recorded a cost per-patient day in 1899 of \$1.32; by 1940 the cost per-patient day had increased to \$4.91.<sup>3</sup>

A study of services and costs in seven small hospitals over a ten-year period, as shown in Table II, reveals a cost per-patient day of \$4.62 in 1936, with an increase to \$6.14 by 1945.

TABLE II

TEN YEAR REPORT ON SERVICE AND COSTS IN SEVEN SMALL HOSPITALS<sup>a</sup>

Year	Patient Income per- patient day	Cost per-patient day	Payroll per-patient per month	Payroll per-patient day
1936	\$4.31	\$4.62	\$70.00	\$2.33
1937	4.45	4.89	76.00	2.53
1938	4.62	4.96	82.00	2.73
1939	4.75	4.92	81.00	2.70
1940	4.68	4.98	82.00	2.73
1941	4.91	5.04	83.00	2.77
1942	5.18	5.31	87.00	2.90
1943	5.47	5.43	91.00	3.03
1944	5.79	5.72	99.00	3.30
1945	6.28	6.14	107.00	3.56

<sup>a</sup>Robert Jordan and Richard T. Viguers, "Ten Year Report on Service and Costs in Seven Small Hospitals," Hospitals, Journal of The American Hospital Association, February, 1947, Volume 21, p. 56.

<sup>3</sup>Bartine, loc. cit.



It is interesting to note that the patient income per-patient day equaled or exceeded the cost per-patient day in only three of the ten years covered by this report, and in those years by a small amount.

During approximately the same period, Beth Israel Hospital, Boston, Massachusetts, recorded a cost per-patient day of \$7.18 in 1938, with an increase to \$14.34 by 1947 (Table III).

Beth Israel Hospital was not as fortunate as the seven hospitals reported on by Jordan and Viguers, since their patient income per-patient day never equaled the cost per-patient day during this ten-year period.

TABLE III  
BETH ISRAEL HOSPITAL<sup>a</sup>

Year	Cost Per-patient day	Income Per-patient day
1938	\$ 7.18	\$ 5.39
1939	7.10	5.94
1940	7.14	5.42
1941	7.27	5.95
1942	7.86	6.56
1943	8.27	7.35
1944	9.21	7.82
1945	9.85	8.40
1946	11.39	9.01
1947	14.34	11.08

<sup>a</sup>Charles F. Wilinsky, M. D. and Nelson O. Lindley, "Comparing 10 years of Rising Costs," Hospitals, Journal of The American Hospital Association, March, 1948, Volume 22, p. 44.

It is easy to conclude that these are isolated cases and are not representative of the true cost per-patient day picture. However, within the experience of the writer, cost data were not collected on a national basis until



1949, when the American Hospital Association published its first Guide Issue, which contained statistics as shown in Table IV.

TABLE IV  
TRENDS IN HOSPITAL<sup>a</sup> FINANCES 1946-1959<sup>b</sup>

Year	Expenditures Per-patient Day	Patient Income Per-patient Day	Payroll Per-patient Day
1946	\$ 9.39	\$ 7.75	\$ 4.98
1947	11.09	9.71	5.99
1948	13.09	10.93	7.17
1949	14.33	11.74	7.96
1950	15.62	11.56	8.86
1951	16.77	16.73	9.65
1952	18.35	18.10	10.66
1953	19.95	19.71	11.86
1954	21.76	21.00	13.21
1955	22.00	22.58	12.91
1956	24.17	23.87	14.85
1957	25.16	24.88	14.87
1958	28.17	27.73	17.13
1959	30.19	29.57	18.76

<sup>a</sup>Nonfederal short-term general and other special.

<sup>b</sup>"Guide Issue," Hospitals, Journal of The American Hospital Association, 1949 to 1960, p. 365.

This information, and a great deal more is collected on over 5,300 hospitals and is representative of the national trend of costs and income per-patient day.

While the cost accumulation per-patient day was slow in starting, it reached a very significant level in the relatively short period of time from 1946 to 1959. The increase from \$9.39 to \$30.19 during this period represents an increase of 221.5 per cent. Even though patient increase per-patient day increased 281.5 per cent, from \$7.75 to \$29.57, during this same period of time,





it still lagged behind the cost per-patient day. The patient then, did not really pay his way.

#### U. S. Naval Hospital Costs

The earliest (in the years prior to 1830) type of naval hospitalization ashore permitted leaving the sick or wounded in private homes and paying for their care and subsistence on a per diem or weekly basis. This was a constant source of dissatisfaction, both among officers and enlisted men. Such services as were provided varied greatly from port to port. There was very little naval supervision and the government often was overcharged. The type of accommodations provided the sick differed almost as widely as the quality of professional treatment. Sometimes the service was reasonably good; more often it was very bad. In Baltimore, Maryland, a physician supplied all the necessary items, except clothing and funeral expenses, at the rate of 55 cents a day; while in Alexandria, Virginia, a local alms house cared for sick seamen at the higher fee of \$5.00 per week.<sup>4</sup>

The first hospital of the United States Navy was established in 1830 in Portsmouth, Virginia. Despite its lack of organization, it served as a nucleus for the present naval hospital system composed of 23 hospitals, containing 14,616 beds, with assets valued at \$182, 680,000.<sup>5</sup>

The rise in the cost per-patient day is not peculiar to civilian hospitals. The naval hospital system has experienced a similar rise in the cost

---

<sup>4</sup>Medical Department Orientation--Nav Pers 10815-A, Prepared by the Bureau of Medicine and Surgery for Publication by the Bureau of Naval Personnel, United States Printing Office, Washington, D. C., 1955, p. 59.

<sup>5</sup>"Guide Issue," loc. cit.



per-patient day. As shown by Table V, this cost has increased from \$3.24 in 1924, to \$22.41 in 1959. This represents an increase of 560.8 per cent in 35 years. This is a truly spectacular percentage increase. It should be noted, however, that during the same time period covered by Table IV, 1946 to 1959, the increase in the cost per-patient day was 139.6 per cent, or just under 10 per cent per year for the 14-year period.

TABLE V  
COST PER PATIENT DAY AT NAVAL HOSPITALS<sup>a</sup>

Year	Cost Per-patient day	Year	Cost Per-Patient day
1924	\$3.24	1941)	\$
1925	3.11	to )	c
1926	3.10	1945)	
1927	2.88	1946	8.52
1928	2.91	1947	8.52
1929	2.79	1948	10.23
1930	2.85	1949	11.89
1931	4.56	1950	12.12
1932	3.90	1951	11.04
1933)		1952	13.26
1934)	b	1953	13.89
1935)		1954	14.65
1936	5.88	1955	15.48
1937	5.30	1956	16.72
1938	5.61	1957	16.24
1939	5.48	1958	18.06
1940	4.80	1959	22.41

<sup>a</sup>Cdr. Guy D. Morgan, MSC, USN, Comptroller's Division, Bureau of Medicine and Surgery, Department of the Navy.

<sup>b</sup>Costs were not computed for the depression years.

<sup>c</sup>Costs were not computed for the war years.



A Common Problem

It must be clearly understood, because of the different factors used in computing the costs per-patient day of civilian hospitals and naval hospitals, that these cost figures are not comparable on a dollar-for-dollar basis. Factors such as the salaries of physicians included in the cost per-patient day at naval hospitals preclude such comparisons.

These cost data are presented jointly to demonstrate the rising trend in the cost of caring for inpatients at all hospitals and to emphasize the fact that both the military and civilian hospital complex are faced with a common problem.

The problem is that of determining in what areas of the individual hospital the cost of operations has increased, isolating the controllable from the uncontrollable cost, and instituting an all-out program to establish, instill and increase an attitude of cost consciousness in order to control the controllable costs without reducing, but rather increasing, the quality of professional care received by the patient.



## CHAPTER III

### SIGNIFICANCE OF RISING COSTS

The rise in hospital costs since 1946 has occasioned a growing concern over the rate of increase as well as the dollar level which this cost per-patient day has reached. This concern has permeated every sector of our nation, business activity, level of society and government.

This concern cannot and must not be ignored for it is because of it that hospital management will initiate new and renew old efforts to determine where hospital costs have increased, and take steps wherever possible to control these costs.

#### Growing Concern

Thoughtful students of our medical and hospital economy are becoming increasingly concerned about the cost of providing adequate hospital care and the ability of the patient to pay for it. This concern is confined not only to hospital administrators but shared by those associated with third-party payments to hospitals and by physicians as well.

It is rare, indeed, to find a hospital meeting which does not include a discussion about hospital costs and charges and the chosen few who can afford to be sick these days. One of the most surprising phenomena of this interest or concern in hospital costs is almost universal suspicion, skepticism, or misunderstanding of the explanation or the justification of hospital





costs.<sup>1</sup>

The official concern of the government was expressed in July, 1959, by the then United States Surgeon General, Doctor Leroy E. Burney, when he told hospital administrators attending the Institute of Hospital Accounting and Finance at Indiana University, that:

Needed services are becoming more complex, more numerous, more costly -- especially in care of the chronically ill.

The dilemma of the hospital is how to hold down the operating costs without sacrificing the quality of care.

We must find more economical and effective methods of hospital care to meet the changing and growing demand for hospital service. Governmental agencies, medical research and teaching institutes must be involved.

The participation of business and industry, labor organizations and professional groups, along with civic and voluntary agencies is essential.

The Surgeon General further said, "that medical and technical advances mean use of more expensive equipment and larger teams of hospital personnel."<sup>2</sup>

The concern over increased hospital costs is not peculiar to civilian hospitals. Those factors which have affected hospital costs in civilian hospitals have had the same or similar affect on the hospitals of the Naval Hospital System.

The days of unlimited operating funds have passed. Commanding officers are now forced to provide the highest quality of medical care and still operate their hospitals within the appropriated funds which are available.

---

<sup>1</sup>Albert W. Snoke, M. D., "Three viewpoints on hospital costs," Hospitals, Journal of the American Hospital Association, Volume 25, December, 1951, p. 50.

<sup>2</sup>The Herald (Bloomington, Indiana), July 13, 1959, "Must Hold Down Costs in Hospitals."



This growing concern should be of great therapeutic value in curing the ills in the administration of hospitals. It has to a limited degree in the past, and will to a great degree in the future, forced all levels of hospital management to closely examine their areas of responsibility for practices of waste and managerial irresponsibility which contribute to and directly affect this increasing cost per-patient day.

#### Areas of Increases

There are many cost elements and cost centers which are used in computing total hospital costs or the cost per-patient day. All of these factors have increased, which, in turn, has given rise to the increased and increasing cost per-patient day. It is neither possible nor desirable, within the scope of this thesis, to consider these elements or centers individually; therefore, these elements or centers will be considered in groups or categories in the order of their importance.

It is the considered opinion of the writer that for convenience of consideration these elements should be classified as major or primary contributory factors, and minor or secondary contributing factors.

#### Primary factors --

The hospital service requirements of a patient with a leaky heart valve, a relatively few years ago were, for practical purposes, very small. There was very little we could do for him. Today the requirements of such a patient can be met only by the expenditure of a vast amount of personnel, services and materials and by the use of an enormous array of delicate and expensive apparatus. . . . The cost of a heart operation can well exceed \$1,500 in hospital services alone.

The use of the artificial kidney for one patient with uremia involves the services of 18 physicians, nurses and special technicians at a cost of between four and five hundred dollars.



A new machine just developed (1958) makes it possible to develop and dry x-ray film in six minutes. The patient can wait several minutes, instead of returning the next day, while the radiologist determines whether it will be necessary to take additional x-rays. Will the hospital install the machine? Of course it will, as soon as it can afford it. Cost -- \$40,000.

An apparatus called the cardiac pacemaker was developed a year or two ago (1956). Attached to the patient, it monitors his heart beat and, if the heart should stop, it sends pulses of electricity through the chest which start and maintain the beat. How many should the hospital have? Well, at least one for each operating suite. How about the emergency room, each of the cardiac wards, the delivery rooms, the premature infant nursery? The answer is plain -- of course there must be one in each of these areas, and in others too.

Cost? The costs are staggering but we are dealing with human health and human life. We'll just have to worry about how to pay -- we might have to raise . . . rates. We might even 'price ourselves out of the market,' but we'll buy the pacemakers.

Incidentally, . . . what kind of an institution will take over the hospital's function when, as . . . uninformed critics threaten, 'we price ourselves out of the market'?

The advent of the broad spectrum antibiotics has literally changed the face of medicine. These have added years of life and years of better health. They have also added a great many dollars to the hospital deficit and they require many more hours on the part of hospital personnel.

What is true for antibiotics applies also to all of the great array of new and powerful drugs, such as cortisone, ACTH, the hormones, the vitamins, the antihistamines, the tranquilizers, etc. All of these are wonderful and all of them are furnished to our patients with only one criterion, namely, the medical need. The cost -- well, in one hospital . . . the cost of drugs dispensed to patients has risen from \$260,000 in 1951 to nearly \$700,000 per year . . . in 1957.<sup>3</sup>

These examples are representative of a major area of increased costs -- that of professional care of patients. The direct result of increased expenditures in this area may result in increased cost per-patient day but they are also responsible for higher recovery rates, shorter patient stay, and longer life. These expenditures purchase that which must be increased -- the quality of medical care.

---

<sup>3</sup>Martin R. Steinberg, M. D., "The Heart of the Matter," Hospitals, Journal of The American Hospital Association, June, 1958, Volume 32, p. 43.



The major factor involved in the rise of hospital costs lies principally in the nature of hospital service. Hospitals are personal service enterprises. This means that their service is rendered mostly by people rather than by machines.

About two-thirds of every hospital dollar is spent for payroll. In the manufacturing industry the expenditures for payroll represents only 28 per cent of total costs. An examination of the payroll picture in hospitals since 1946 reveals the cause and the importance of the increased payroll costs.

In 1946, hospital costs of salaries for all general hospitals averaged \$4.98 per-patient day. By 1959, this cost had increased to \$18.76 per-patient day -- an increase of 277 per cent. While overall costs per-patient day were climbing 221 per cent during the thirteen-year period, payroll costs per-patient day were increasing 277 per cent. If we remove the increased cost of wages from the overall costs we find that non-wage costs increased only 159 per cent. The increase in wage costs was due to an increase in the amounts paid per worker and the number of workers.

Actually, 54 per cent of the increased wage costs in hospitals since 1946 has been due to salary increases and 46 per cent has been due to added personnel.

In 1946 the average annual salary of a hospital employee was the low sum of \$1,228. For this sum the average employee worked 46 hours per week, had no social security and no hospital-financed retirement plan. In 1959 the average hospital employee was making \$3,068 annually, was working an average of 42 hours per week, had social security, and most likely had a hospital-financed retirement plan. He was still a good bit behind the average paid to all non-agricultural workers in this country, but he had been given a stiff shot in the salary arm toward removing the differential. . . .

The increase in the hospital employees' annual salary during the period averaged 150 per cent, or about twice the average increase given to all other workers in this country.





The impact of wage increases on hospital costs is much greater than the effect of wage increases on the unit cost of most other industries. This has to do with the fact that hospital service is a personal service. . . .

The influence of payroll on hospital costs, as contrasted with manufacturing industries is demonstrated by the following figures. The U. S. Department of Commerce reported that in 1958 payroll made up 28 per cent of the expenditures of manufacturing industries as compared to the 62 per cent of the hospital dollar going into wages. This means that the operating expenses of hospitals are affected twice as adversely as those of manufacturing industries for each dollar of wage increase granted an employee.

Wage increases have an even more adverse effect on hospital operating costs relative to those of industry. Hospitals cannot take very much advantage of the new industrial revolution of automation that has given industry an increase in productivity per worker of three per cent per year for the past twenty-five years.

This increased productivity has permitted industry in general a buffer of 39 per cent of its payroll in the period since 1946 by which to absorb that much of the impact of wage increases on its unit costs.

Hospitals must increasingly compete with industry for personnel and this means matching the wages and other working conditions of industry. Strangely enough, as industry improves its efficiency, hospital costs will increase. This is because industry will be able to pay higher wages for fewer and fewer man-hours per unit of production. Hospitals, however, will have to give similar wage increases without a similar reduction in man-hours per-patient day of care. This means that hospital operating costs will be adversely affected by the ever-increasing mechanization in industry.

Actually, hospitals will have an increasing number of man-hours per-patient day. Scientific advances of medicine have vastly improved the quality of medical care each year. Each medical advance, however, can be measured in germs of added hospital personnel. Some idea of the effects of the multitude of new diagnostic and therapeutic procedures on the number of hospital personnel can be seen in comparing 1946 with 1959. Thirteen years ago hospitals had an average of 1.48 employees per-patient day of care. In 1959 this had increased to 2.23 employees. While about one-tenth of this increase was due to employees added because of the shortened work-week of employees, the largest part was due to new positions created because of new services.

The rate at which medical science is advancing, and the insistence of the public that they have advantage of each new discovery as soon as it is proven, makes it safe to predict that the ratio of employees to patients will continue to advance as medical science advances.

It is not likely that the American public is going to permit life-saving and life-extending discoveries by medical researchers to lie unused because of necessary increases in hospital costs.<sup>4</sup>

---

<sup>4</sup>Ray E. Brown, "Behind Rising Hospital Costs," Hospital Accounting, Journal of The American Association of Hospital Accountants, February, 1961, p. 18.



These two factors, improved medical technology and increased wage rates for hospital personnel, which are primary contributory factors, account for the greatest portion of the increased cost per-patient day.

#### Secondary factors

There are, however, several more factors, secondary to those mentioned previously, but sufficiently significant to be given consideration as both current and future contributors to these increasing hospital costs.

Educational and training programs for nurses will impose an increasing financial burden on approximately 1200 of the nation's general hospitals. In past years these students and trainees paid for their education by the service they gave to patients. Today, however, these programs are costing increasingly more annually.

The paramedical professions work through their national organizations steadily to improve their educational, economic and social status. These, in themselves, may be desirable objectives, but they have undoubtedly pushed hospital costs up. Since there seems to be no end to this trend, one can confidently predict that future costs will be affected by it.

Growth in ambulatory services will unquestionably increase future costs. The Blue Cross organization and insurance commissioners of several states are concerned over the steady increase in use of hospital beds by insured patients. The charge of over-utilization has been made. Whether or not this charge is warranted is problematical. However, the whole subject of abuse of hospital care needs to be given some very close examination before the public becomes further confused. Those members of the medical profession who seem willing to be quoted on the manner in which their colleagues, and never themselves, are



admitting patients unnecessarily to hospitals should be reminded that they are doing a disservice to the public as well as to their profession.

The seemingly widespread notion that there is extensive violation of their (the insurers') prepayment contracts by patients might be an indication that the prepayment contracts do not fit the public's needs. If a large segment of the public is misusing their prepayment, it might be that the coverage is inappropriate rather than the usage. There is nothing immoral in the use of a hospital if the individual is willing to pay the cost of such use and if nothing immoral is done to him while he is in the hospital. In our society the individual is permitted an option as to what he chooses to purchase with his funds. It is only when he violates the prepayment contract that his use of the hospital becomes immoral. Serious study should be given to the question of whether the prepayment coverage is realistic in terms of the use the public is attempting to make of its prepayments.<sup>5</sup>

The charge of over-utilization itself will hasten the trend of the past few years for hospitals to provide the services and facilities for undertaking more complex diagnostic and therapeutic procedures on an ambulatory basis. These trends will further inflate hospital costs, although a net savings to the community will result through more effective use of hospital beds.

The rapid growth in our population and high hospital utilization among older age groups will mean that we must look forward to an increasing number of senior citizen patients. (It is predicted by the population experts that by 1975 our population will increase about 29 per cent over the total this year. The largest part of this growth will occur in the 65 years and over age group, which will increase at a rate of 52 per cent.<sup>6</sup>) They, like the severely ill younger patient, require more technical skills and nursing attention, not only because of their age but also because of the nature of their illnesses. Clearly,

---

<sup>5</sup>Ibid., p. 18.

<sup>6</sup>Ibid., p. 31.



the more older people in hospitals, the higher costs will go.

The need for capital funds to replace, increase and improve plant and equipment looms large in future hospital costs. As concepts of hospital care change, as the insured portion of our population grows and medical science advances, hospital plants and technical equipment become obsolete more rapidly. . . . This needed capital represents an additional charge against the patient, his insurance carrier, tax funds or philanthropy.<sup>7</sup>

So much for the factors which have pushed and will continue to push hospital costs upward. Undoubtedly there are others, but these will suffice to demonstrate the problem with which we are faced.

However, facing the problem, while a good start, is not enough. The elements of this problem must be separated into those which are controllable and those which are not, and once this determination has been made controls must be instituted wherever possible.

---

<sup>7</sup>Henry N. Pratt, M. D., "Factors that will shape Future Hospital Costs," Hospitals, Journal of The American Hospital Association, Volume 33, October, 1959, p. 55.





## CHAPTER IV

### AREAS OF CONTROL

The task of controlling costs within a hospital is not an easy one.

There are those costs which cannot and should not be controlled if they deprive the patient of medical advances or reduce the quality of patient care. Control in this area can be exercised by developing new systems or installing systems already available which will reduce the cost of caring for a patient and yet improve the quality of care which he receives; enlisting the cooperation of the attending physician will account for substantial savings for both the hospital and the patient.

There are, however, the costs of operating the service, administrative, housekeeping and maintenance functions of the hospital which can be controlled effectively. The exercise of this control may be through personnel policies, purchasing policies, internal controls, accounting, budgeting, and cost analysis. This type of control may take many forms, but it can be highly effective. This area of control falls quite naturally within the realm of the hospital controller and requires him to perform his duties with a high degree of skill. He must develop a program of cost-consciousness and sell this program to the employees and to all levels of management, for it is only through controlling the hospital personnel that he can control costs.



In considering the problem of controlling costs within a hospital, the possible areas of control fall quite naturally into two categories; those in the area of patient care and those in the non-patient care functions.

#### Control in the Area of Patient Care

Control in the area of patient care requires of the controller the highest degree of diplomacy and resourcefulness. It is in this area that he must enlist the aid and gain the cooperation of the professional members of the hospital staff. Without their aid and cooperation, new systems of patient care cannot be tried, programs of intra- and inter-hospital coordination will not succeed.

The following systems and programs are examples of control methods which can result in a reduction of hospital costs. Their success is dependent upon the wholehearted approval and cooperation of the professional members of the hospital staff.

1. The establishment of a progressive patient care unit in a hospital will result in savings for the patient as well as the hospital. This savings is possible through more effective utilization of personnel and consolidation of equipment needs, thereby reducing equipment requirements. Future saving can be gained through changes in the structural requirements of new construction housing these units.

There are five elements in the present concept of progressive patient care. Four are contained within the general hospital. The fifth is an extension of service into the community. These elements are: intensive care, intermediate care, self-care, long-term care, and, organized home care.



Manchester Memorial Hospital, Manchester, Connecticut, reported the following observations after two years of operating a progressive patient care unit:

In progressive patient care, nursing service directors and hospital administrators have a greater number of nursing units that function with staffs more closely related to the needs of the patient. Hence, a better utilization of nursing efforts per-patient day enhances this possibility. With nursing payrolls representing more than 56 per cent of the cost of day rate service, this is a significant factor.

Progressive patient care will minimize total building costs for the following reasons:

- a. The building construction itself can differ from the general concept of hospital construction. Example, the elimination of the necessity for large utility, sterilizing, floor dietary kitchen, and nursing station areas in the self-care units.
- b. The use of hotel-type furniture in the self-care unit versus the use of expensive special hospital furniture in each patient's room.
- c. The piping of oxygen and suction would be limited to a concentrated area (intensive care unit) rather than to patient care areas throughout the hospital.

Progressive patient care can provide a possible reduction in payrolls.

Manchester Hospital reported the room, board and nursing care average cost per-patient day for their progressive patient care (p.p.c.) units versus the non-p.p.c. units for 1958 as follows:



Intensive care units	\$24.98
Intermediate care unit	15.73
Self-care unit	14.03
Pediatrics	16.62
Obstetrical	15.27

---

Average cost per day	\$16.96
----------------------	---------

During this same period the average cost per-patient day for the same service in 17 Connecticut hospitals, 100-300 beds, was \$19.70.

After adding the cost of special professional hospital services the total average inpatient cost per day was \$28.38 for Manchester Hospital while the 17 Connecticut hospitals, 100-300 beds, recorded an average inpatient cost per day of \$32.20.<sup>1</sup>

The savings in costs presented in this study make this system worthy of consideration.

2. Closer coordination between attending physicians and hospital management in the prescription of medical services for the patient, represents another possible area of control. The medical staff influences costs to the hospital as well as charges to the patients. There is evidence, in some institutions, that services have occasionally been prescribed, particularly for contract patients, which have involved undue expense to the hospital or patient. In some cases the doctor has not realized the financial burden created by his decision.

In this same area hospital management should encourage private out-patient service. Diagnostic apparatus and professional personnel are seldom used to

---

<sup>1</sup>Bernard L. Felton, "Consideration in Costing a Progressive Patient Care Hospital," paper presented at the annual meeting of the New Hampshire Hospital Association and the New Hampshire-Vermont Chapter of the American Association of Hospital Accountants at Whitefield, New Hampshire on June 19, 1959.





capacity in the service of bed cases or free out-patients. Individual medical practitioners have welcomed the opportunity to send private cases to hospitals for study and reports.

3. Coordination among hospitals in the use of professional services, equipment and personnel will reduce costs since a high degree of use is essential to low operating costs and acceptable charges to the public.

Coordination of this type proved to be very successful in the naval and civilian hospital community of Memphis, Tennessee. Several examples of such coordinated programs are as follows:

a. In 1958, the Naval Hospital and five civilian hospitals of Memphis, Tennessee, entered into a free blood exchange agreement. Under the terms of this agreement if a member hospital was in need of a specific type and subtype of blood and had none on hand, it merely placed a telephone call to any one or all of the member hospitals and if the required type of blood was on hand, it was supplied on a no-charge basis. As soon as the borrowing hospital replenished its stock, the borrowed quantity was repaid. This represented a substantial savings to the hospital and the patient because the hospitals of this agreement became self-sufficient and did not require the services of the commercial blood bank.

b. The Naval Hospital, Memphis, Tennessee, has several types and sizes of respirators (iron lungs) which are loaned at no charge to the hospitals of the Memphis community. These respirators represent a substantial initial investment which is transferred in the form of savings to the civilian hospitals who borrow them.



There are other examples, but these are sufficient to demonstrate the fact that such programs can work and will result in savings for both the hospital and the patient.

#### Control in the Non-patient Care Functions

Control in the non-patient care functions of the hospital requires of the controller no lesser degree of diplomacy and resourcefulness than is required of him for control in the area of patient care. In this area, however, his policies and actions directly effect the operating costs of a hospital.

Operating policies, carefully formulated and conscientiously executed, result in an efficient utilization of all of the resources employed as an adjunct to direct patient care.

The following areas of control are examples of some of the major cost functions which can be controlled effectively.

#### Personnel

The controller and the administrator of a hospital must surround himself with employees who are not only cost conscious, but are able to work as part of a team interested in keeping costs at a minimum. Hospitals cannot cut costs by employing illiterate, unintelligent or disinterested personnel to fill positions in the hospital organization.

Personnel policies must provide for the employment of reasonably intelligent individuals, who are interested in hospital work, and have the desire to work as part of a team. The hospital wage policy must be adequate to attract this type of person. This personnel policy must also provide for an organized formal and informal training program which is essential to the



development of skills and habits necessary to do a good job in the minimum time and with the minimum cost and effort. Economies are achieved through the use of fewer employees producing a better quality of job in a shorter period of time. A good training program increases an employee's self-confidence and reduces the probability of his resigning for employment elsewhere. A reduction in the personnel turnover rate will reduce personnel costs substantially.

One might question "substantial savings" by reducing the personnel turnover rate, but this represents a major problem in hospitals. W. I. Christopher, Director, Hospital Personnel Services, Catholic Hospital Association, reported on a study of over 300 hospitals, which analyzed and reported their labor turnover rate, that there was an average labor turnover rate of 5.3 per cent per month, or 63.6 per cent per year. In view of the magnitude of this problem, sufficient discussion is warranted at this time.

To better understand labor turnover, we need to understand causes of termination, which is the separation of the employee from his job and severance of an employee-employer relationship. This may occur in four basic ways: lay-off, discharge, retirement, and resignation.

The resignation is the most common cause for hospital employee terminations. It is an action taken by the employee. It may be prompted by factors that are personal -- unrelated to the job, such as family health, relocation, education, job preference, etc. However, more frequently, the cause of resignation is job related and arises out of the employment situation and may stem from morale problems, unsettled employee grievances, poor employment practices, undesirable working conditions and personnel policies, incompetent supervision, lack of effective communication, failure to develop harmonious relations, etc. It is this area of the job related causes for resignations that concern be directed to determine what has contributed to the employee's decision to resign. It is at this point that the "Exit Interview" becomes an essential tool of Hospital Personnel Administration to gather data to be analyzed to determine real causes for labor turnover, and to separate what is personal from what is hospital or job related, and which if corrected could result in a reduction of labor turnover.



Now let us briefly review what happens when an employee is discharged or resigns. In this way, perhaps we can see a little more clearly the areas of cost -- both in dollars and cents and in time, skill, experience, morale, public relations, etc.

When a worker is separated from his job, there is a sudden burden on the supervisor's time, to follow the termination process, of checking tools, supplies, equipment of facilities loaned to the worker to aid in job performance. The position analysis record and employment specifications should be re-examined and verified or corrected to assure proper selection of the next employee. The Personnel Office must be notified by requisition and then another sequence of time consuming activity begins.

First the terminating employee must be properly processed. An exit interview should be planned. The final pay check prepared, completion of tax statements and closing employee's record. The Personnel Office must close out the record, notify departments concerned, and begin to recruit applicants from which a replacement can be selected. There may be advertising costs, fees to private employment agencies, etc.

Processing of applications, conducting interviews, verifying references, testing and physical examinations all add to the cost, plus time of the switchboard with calls; receptionists -- to refer walk-in applicants, and time of the supervisor to review qualifications of processed applicants referred by the Personnel Office for a final interview. One or more interviews may be had by the supervisor before the right replacement is employed. When hired, more time (and time in each of these cases is equal to money) is consumed in the Personnel Office. The duties and wages should be once more reviewed. Then -- contracts if needed, signing of tax forms, applications for insurance plans, retirement, hospital benefits; final instructions to the new employee, time cards, preparation of payroll record and basic personnel record.

Now, time is required of the supervisor to begin departmental and job orientation. Other employees may be called upon to aid -- this means that their work is undone, and the work of the new employee, needless to say, is not up to the performance standards, either quantitatively or qualitatively. It will take days, weeks, months and sometimes years for the new worker to gain the competence of the former worker. During this period of time more demands are made on the supervisor's time and on other workers. Sometimes when several new workers are in a department at the same time, an extra worker may be added to make up certain work demands.

Waste, errors, accidents are added costs -- each with a value. Formal orientation to the work of the hospital; the role of the patient; the new employer, organization structure, key personnel, history, objectives, rules, policies, procedures, may involve time of many key persons plus the loss of work-time by the employee. Job instruction training takes added time if the worker is not already properly skilled and trained.





Each element of time and direct cost is important -- but the deterioration of work performed and its related depreciation in quality of patient care is of even greater importance. With these thoughts in mind it is recommended that each hospital maintain regular records of labor turnover rates and stability rates.

A comprehensive analysis of each turnover as to both direct causes and contributing causes -- ascertained through exit interviewing, begins to provide the type of data to allow study of weaknesses in the personnel program which led to labor turnover.

Labor turnover is a challenge. It can be controlled -- reduced to a reasonable amount. This will take time and a bit of effort -- but in the end will be reward of time returned many times over with less need to recruit, screen, select, place, and train new employees. If the employee doesn't leave -- there is no need for replacement.<sup>2</sup>

Another element which affects personnel costs is the lack of an adequate, functioning safety program -- accident prevention is good business. Such a safety program will not only protect the physical condition of the employee, but it will promote his desire to remain with the institution. It prevents property damage, and decreases the cost of workmen's compensation and public liability insurance premiums. It helps to build and maintain good public relations. Since accidents disrupt the regular operating routines, the effectiveness of the work is reduced proportionately. The more injuries there are, the greater the loss of efficiency. Establishing effective controls over accidents, through the activities of a safety committee and other administrative techniques is good business and good economy in the long run.

### Purchasing

Cost control in the operation of the hospital hinges, to a large degree, on the control of expendable items. This control begins with the creation of a

---

<sup>2</sup>W. I. Christopher, "Labor Turnover -- Expensive Luxury or Controllable Cost?," Hospital Accounting, Journal of The American Association of Hospital Accountants, April, 1960, p. 18.



need for an item and does not end until the item has been legally, economically and effectively consumed.

The purchasing agent is the controller's right arm in this area of control. He is in the unique position of influencing hospital costs far beyond the ratio of dollar expenditures to total costs.

The purchasing agent can help maintain the position of an efficient hospital through two phases; the tangible and intangible cost elements. The tangible results of the purchasing department can be clearly measured through reports and statistics. The intangible cost savings result from the constant suggesting, and application of new and better products and innovations throughout the hospital.

A few of the tools which the purchasing agent has, or should have include: the unique position of making daily decisions involving the selection of quality and quantity procurements, the disbursements of hospital finances and the influencing of department heads and management on their selection of materials and supplies. Therefore, the need for clearly written policies providing the purchasing agent with authority and responsibility is a pre-requisite to his job and is necessary for his own protection. . . . All purchasing for the hospital should be centralized through his office. No verbal orders should be accepted or be permitted by the purchasing agent for the requisitioning, the ordering, the disbursing or the receiving of any commodity that comes within his scope.

A well-organized storeroom controlled through an inventory control system, maintained either physically, by machine or even by electronic data processing equipment, is a must. The purchasing agent should have available, at all time through his inventory controls, the accurate balance of each item maintained in the storeroom. The maximum and minimum quantities for each item should be reviewed periodically and adjusted for usage. Perpetual inventory cards are the basis for invaluable reference or report information. The rate of item turnover, the comparison of disbursement with a previous period, the fluctuation in price, etc. A cycle inventory system should be used with the entire storeroom physically inventoried at least once each year.

Standard printed requisitions should be used for each department requisitioning from the storeroom. Standards of usage should be established for each requisition based upon the normal occupancy or production of that department. Before each requisition is approved for disbursement by the purchasing agent, comparison with the standard for that area will disclose excess requisitioning.

As part of the management team, the purchasing agent will constantly watch the financial level of his total inventories. He will determine if the hospital is in a position to handle bulk buying. Would the discounts from such practice warrant the increased investment of hospital funds, or result in future obsolescence?



He is in a position to explain the variations as shown by the accounting department of the dollar expenditure of supplies for every department in the hospital. If the hospital is working on a pre-determined, but exacting budget, the purchasing agent should be definitely part of the budget team. He is the one to explain the above variations when they occur.

From the records of the purchasing agent, an obsolescence and turnover report should be maintained. This is required again for establishing the true value of the inventory and for balance sheet purposes.

Obviously the purchasing agent can save for the hospital through prudent buying. This alone can justify his position.<sup>3</sup>

Prudent buying has resulted in a variety of tactics aimed at more efficient operations. Among them is the "formulary system" of stocking hospital pharmacies with basic drugs by scientific rather than brand name. Drugs usually cost less when purchased by generic rather than brand name.

Dr. August H. Groeschel, associate director of New York Hospital, estimates that it saves \$250,000 to \$500,000 a year because it buys and stocks medicines by generic name.<sup>4</sup>

The Military Medical Supply agency, the central purchasing agency of medical supplies for the Department of Defense, developed a policy in 1960 of purchasing tranquilizers and broad spectrum antibiotics in the European market. Military Medical made six purchases abroad in 1960 of these items at a cost of \$3,471,622 and an estimated savings of \$2,598,745 over domestic prices.<sup>5</sup>

What about the intangible cost savings the purchasing agent can make? He is involved indirectly with the operation of every hospital department. In

---

<sup>3</sup>William T. Gill, "Hospital Cost and the Purchasing Agent," Hospital Accounting, Journal of The American Association of Hospital Accountants, January, 1961, p. 13.

<sup>4</sup>The Wall Street Journal, September 7, 1960, p. 1.

<sup>5</sup>Ibid., November 3, 1960, p. 1.



his capacity he is a focal point for the advent of new and sometimes better products and innovations. Consideration should be given to substitutes and new products, such as plastic and nylon which can replace china and glassware, and other synthetics which can replace natural materials. Substitutes are available and acceptable for most products. It is difficult to evaluate products unless substitutes for them have been tried and costs compared. Many paper products can be utilized not only as substitutes but also as cost-saving and labor-saving items, since breakage and dishwashing expenses are eliminated. Paper products, however, are not always inexpensive. Their use over an extended period of time may result in higher costs.

Such a study was conducted at Beth Israel Hospital, Boston, Massachusetts. It showed that the use of a certain type of expendable paper cup would cost \$1,800 per year as compared with \$94.00 spent for glass cups used for the same purpose. The costs of individual portion and service items such as marmalades, jam, ketchups, and salt and pepper packets can be easily compared. A recent study showed that a change from bulk to individual packets would increase yearly food expenses for that item from \$200 to \$1,500.<sup>6</sup>

These are but a few of the intangible aids that a purchasing agent can give to his hospital. It means constantly scrutinizing the use of the items for which he is responsible. The results are difficult to measure in total man-hours or dollars saved, but this particular phase of management is the greatest contribution the purchasing agent can make to efficient hospital operations.

---

<sup>6</sup>Vincent W. Godlisky, "Hunt for Hidden Costs," Hospitals, Journal of The American Hospital Association, February, 1956, Volume 30, p. 66.





### Internal Controls

Hospitals are as susceptible to waste, pilferage and embezzlement as are hotels, department stores, naval bases and any other form of business and government.

These acts of inutility and design can be prevented through an effective system of internal controls. But what is internal control?

Internal control comprises the plan of organization, all of the coordinate methods and measures adopted within a business to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies.

An organizational structure which enhances internal control provides:

- a. The opportunity to place each employee in the position where his talents will be of value.
- b. Management with the knowledge of who is responsible for each phase of the business operation, resulting in a means of measuring the effectiveness of each employee within his assigned sphere of action.
- c. For a definite separation of the responsibility for supervision of operations and the accounting for and the reporting of the results.
- d. Assurance that no one individual will have complete authority and responsibility for handling all phases of a business transaction.

It is not practical to list all of the elements of the different systems for controlling all of the assets of a hospital. It is practical, however, to remember the basic principles of internal control, which if applied properly in the various areas of responsibility, will result in: (a) safeguarding the



hospital's assets, (b) verifying the accuracy and reliability of its accounting data, (c) promoting its operational efficiency, and (4) adherence to its prescribed policies.

These basic principles are:

1. Responsibility must be fixed.
2. The accounting procedures and the operations must be separated.
3. All available proofs of accuracy should be utilized in order to assure correctness of operation and accounting.
4. No one person should be in complete charge of a business transaction.
5. Employees must be carefully selected and trained.
6. Employees should be rotated on a job, if possible, and vacations for those in positions of trust should be enforced.
7. Operating instructions for each position should be reduced to writing.
8. Employees in positions of trust should be bonded.
9. The protective advantages of a double entry system of accounting should not be exaggerated.
10. Controlling accounts should be used as extensively as possible.
11. Mechanical equipment should be used if feasible.<sup>7</sup>

Usage has created many concepts of internal controls which are not real controls, as they are only helpful and make fraud less convenient. Accordingly, those responsible for instituting controls must not become panicked into going control-crazy, but should analyze their situations to see that they have all the other "trimmings," the cost of which will be consistent with the risk involved.<sup>8</sup>

---

<sup>7</sup>F. C. Kurtz, Lecture on Internal Control and Auditing, George Washington University, Washington, D. C.

<sup>8</sup>W. A. Walker and W. R. Davies, Industrial Internal Auditing, (New York: McGraw-Hill Book Company, Inc., 1951) p. 23.



### Accounting

Long used by hospitals, general ledger accounting is basic. It serves as a historical record of expenditures for services, salaries, equipment and medical supplies. But it does not record the kinds and amounts of services the hospital receives for the money it has spent.

If the information in the general ledger is to be of daily use to management, it needs to be broken down into the operating costs of various services and departments and to the actual cost of units of work performed, such as the costs per-patient day in a semi-private, or private room, or in a ward, of the cost of meals served, of laboratory procedures, and so forth.

If management does not know the actual expenses per day for patient care, an under-estimation can mean a substantial deficit.

In guiding their institutions through this inflationary era, administrators (and controllers) are making increasingly effective use of cost accounting.

Accounting by itself performs no action, makes no decisions, establishes no policies. But the story it tells can be used along with a host of other management tools to provide a basis for stimulating action, for rendering decisions, for establishing policies.

Cost accounting is a flexible and many-faceted tool for the administration. It provides data to explain the rising costs of hospital operations to the public. It gives the facts and figures needed in negotiations with third parties. It can help in pinpointing possible waste and inefficiency in a specific department or service. (Knowing just exactly how the hospital money is spent is a yardstick in controlling costs.) It lays the foundation for



a realistic budget which can be used to measure current costs and in planning for the future.<sup>9</sup>

### Budgeting

Accounting, with all the resources at its disposal, should provide financial planning and direction of operation to administration. To be sure, all planning is hazardous, but not nearly as hazardous as no planning at all. Without an objective or plan, either short or long-range, hospital operations become directionless, and decisions merely "hunches" and "guesses," since there is no information available to evaluate the effect of such action.

Therefore, the first tool used in the approach to planning is budgeting. Mere mention of "budget" brings to the minds of many hospital administrators, and even hospital accountants, thoughts of needless work, restrictions, expense cuts, and other negative thoughts.

Dr. Leon E. Hay, in his textbook "Budgeting and Cost Analysis for Hospital Management," states that budgets "can be more meaningful, effective documents, only when the business activities as a whole are planned and integrated in advance." A corollary to this quotation is that a budget avoids rather than corrects undesirable financial trends of condition.

Budgeting is not merely planning financial affairs, but developing an integrated plan for all phases of the operations of the organization. If this is done successfully, each department plays a part in formulating the master budget and, thereby, has a vital part to play in its execution and success.

Of almost equal importance as total dollars in a budget, is budgeting for unit costs or man-hours. This is especially important in major cost areas, such as nursing and dietetics. As a basis of comparison or evaluating, man-hours worked is a better criteria than dollars expended.

---

<sup>9</sup>"Cost Accounting in Hospital Administration," Currents in Hospital Administration, Volume III, No. 2, June, 1959.





For example, a department may have considerable sick-time relief. This expenditure, plus sick-time pay to the employee who is off, would show that the department overexpended. However, with the addition of the man-hours worked report, it would probably show that department within its budget.

. . . Similarly, budgets are established for non-wage items. These are collected, analyzed, and approved. From the summation of anticipated expenditures, the revenue needs of the budget are established. Thus, all disciplines and levels of management have had a part in the development of the next year's operation. Without such team play, a budget is likely to be inaccurate and be viewed as dictatorial and unpopular by hospital personnel.

Unfortunately, a very high percentage of hospitals are still without the aid of any type of budget. To them, it is a needless heap of work for which they have precious little time -- besides, aren't they getting along perfectly well without it? Admittedly, budget preparation, reporting, and control requires a lot of work, but it is the only modern device to take the guess work out of management and put it on a solid business-like basis. (Controllers) . . . , as members of top management, should insist on this method of planning, coordination, and control. . . .

The second tool in financial planning is submitting reports relating "performance" to "budget." After the budget has been approved by the hospital's Board of Directors, the accounting department's responsibility is to supply management, at its various levels, monthly reports relating the "actual" results to the objectives or budget goals. It is important that the nature of the report be informative. In other words, don't tell a supervisor he's spending too much money. Tell him what item or items of expense are out of line. Similarly, certain elements of a budget are to be adjusted for level of activity. Many times we find that an increase in activity will camouflage inefficiency of operation, even though the cost per-patient day is down. Lastly, the reports should be submitted by department or area of responsibility, so that remedial action can be taken by those in charge. . . .<sup>10</sup>

### Cost Analysis

The third tool in financial planning and control is through cost analysis. Perhaps it is redundant to state that no budget system could serve its purpose without a supporting "cost accounting" system. This involves the routine collection and recording of data, income and costs by departments. . . . On the other hand, cost analysis or cost finding, which is often confused as cost accounting, is the process of recasting the data derived from the accounts ordinarily kept by a hospital to obtain costs of services rendered.

---

<sup>10</sup>E. C. Laetz, "Accountings Contribution to Administration," Hospital Accounting, Journal of The American Association of Hospital Accountants, February, 1961, p. 4.



By means of cost analysis, accounting can supply administration with the following vital managerial tools:

1. Basis for use in setting rates. Too often rates are set on the basis of "What the traffic will bear," not costs. Perhaps another reason is that the accountant doesn't know what the costs are -- or he simply recommends rates based on what others charged, or third parties allow. Hospitals are the only institutions that seem to "get away" with such inefficiency and haphazard methods of operation, perhaps because there isn't any effective competition.

2. It can furnish a basis for intelligent negotiation with contract purchases of hospital service. It is quite possible to lose your proverbial shirt if you don't know your costs. One Michigan hospital found out, to their dismay after a period of time, that the per diem cost basis for reimbursement of "polio care" was a losing proposition, because that cost was so much higher than the hospital's over-all per diem cost.

3. It permits management to be in an informed position to decide whether it is best to fabricate or to buy commodities; whether to process or to contract; whether to engage in an activity or not; whether to centralize or decentralize.

Oftentimes administration, without consulting the controller will decide on a course of action -- and more than likely find costs getting out of control.

4. Lastly, Cost Analysis can provide the means of determining the efficiency or inefficiency of operation of cost units.<sup>11</sup>

The suggested areas of control presented in this chapter are not intended to represent a complete list of all possible controls applicable to hospitals. They do, however, represent a starting point from which, if necessary, additional controls can be instituted to provide for complete utilization and protection of the assets (men, material and money) of the hospital in an effort to stem the tide of rising costs.

---

<sup>11</sup>Ibid., p. 10.



## CHAPTER V

### SUMMARY

It is not difficult to demonstrate that hospital costs are rising. The impact of these rising costs has been felt in both the civilian and military hospital community. From 1946 through 1957, the patient day cost of voluntary general and special hospitals for the entire United States increased by 161.5 per cent. From 1924 through 1959, the cost per-patient day of Naval hospitals increased 591.7 per cent.

An intelligent study of these rising costs must include, however, an examination of the dollar values involved in these computations.

Such an examination reveals that costs per-patient day for civilian hospitals was \$9.39 in 1946; this rose to \$25.16 by 1957. During this same period the cost per-patient day in Naval hospitals rose from \$8.52 in 1946, to \$16.24 in 1957.

The rise in hospital costs since 1946 has occasioned a growing concern over the rate of increase as well as the dollar level which this cost per-patient day has reached.

It must be clearly understood, because of the different factors used in computing the cost per-patient day in civilian and naval hospitals, that these costs are not comparable on a dollar-for-dollar basis.

Their cost data are presented jointly to demonstrate the rising trend in the cost of caring for inpatients at all hospitals, and to emphasize the



fact that both the military and civilian hospital complex are faced with a common problem.

The problem is basically that of controlling costs without reducing, but rather increasing, the quality of professional care received by the patient.

Before one can approach the problem of controlling costs in a hospital, a determination must be made as to what areas the cost of operations has increased. For convenience of consideration, the factors which have contributed to the increased costs have been classified as major or primary factors, and minor or secondary contributory factors.

The primary contributory factors are those of purchasing improved or advanced medical technology and drugs; and the expenditures required (1) to employ additional personnel in conjunction with medical advances and/or (2) to meet increased wage rates for current hospital employees.

The secondary contributory factors are:

1. The increased cost of educating and training student nurses.
2. The objectives of national paramedical professional organizations to increase the economic status of its members.
3. The growth in ambulatory services.
4. The rapid growth in our population over 65.

These are some of the factors which have pushed and will continue to push hospital costs upward.

Once the areas of increased costs have been established, it must be determined if they are controllable or not (controllable from the standpoint of desirability as well as possibility) and instituting controls wherever possible.

The task of controlling costs within a hospital is not an easy one.





In the area of patient care there are those costs which cannot and should not be controlled if they deprive the patient of medical advances or reduce the quality of patient care. Control in this area can be exercised by developing new systems or installing systems already available, such as progressive patient care units, which will reduce the cost of caring for a patient and yet improve the quality of care which he receives; enlisting the cooperation of the attending physician in the prescription of medical services for inpatients and in the use of diagnostic apparatus and professional personnel for private outpatients will account for substantial savings for both the hospital and the patient; coordination among hospitals in the use of professional services, equipment and personnel will reduce costs since a high degree of use is essential to low operating costs and acceptable charges to the public.

Control of costs in the non-patient care areas, such as service, administrative, housekeeping and maintenance functions of the hospital, can be controlled effectively. The exercise of this control may be through:

1. Personnel policies which allow the controller and the administrator to surround himself with employees who are not only cost-conscious, but who are able to work as part of a team interested in keeping costs at a minimum. In addition, these policies must reduce labor turnover, which represents a major problem in hospitals.
2. Purchasing policies which provide for the control of expendable items. This control begins with the creation of a need for an item and does not end until that item has been legally, economically and effectively consumed.



The purchasing agent is the controller's right arm in this area of control. He is in the unique position of influencing hospital costs far beyond the ratio of collar expenditures to total costs.

3. Internal controls instituted to prevent acts of inutility and design such as waste, pilferage and embezzlement. Hospitals are as susceptible to these acts as are hotels, department stores, naval bases, and any other form of business or branch of government.

4. Accounting systems that are of greater value to management than historical, general ledger accounting. Hospital management can be greatly improved through the information provided through a well-designed, functioning cost accounting system.

5. Budgeting. Hospitals must formulate a realistic budget which can be used to measure current costs and in planning for the future. Without an objective or plan, either short or long-range, hospital operations become directionless, and decisions merely "hunches" and "guesses," since there is no information available to evaluate the effect of such action.

6. Cost analysis, which is often confused as cost accounting. This is the process of recasting the data derived from the accounts normally kept by a hospital. Cost analysis can supply management with information which can be used, (a) in setting rates; (b) as a basis for negotiation with contract purchases of hospital services; and (c) in determining when fabrication, construction, and contracting are feasible; and in determining the efficiency or inefficiency of the operation of cost units.

These controls may take many forms, but they can be highly effective.



The control of costs in the area of patient care is indirect in nature. Controls in the non-patient care are direct in nature and fall quite naturally within the realm of the hospital controller and require him to perform his duties with a high degree of skill. He must develop a program of cost-consciousness and sell this program to the employees and to all levels of management, for it is only through controlling the hospital personnel that he can control costs. He must meet the challenge of the rising hospital costs.



## BIBLIOGRAPHY

### Books

- Becker, Harry (ed.). Financing Hospital Care in the United States. Vol. II: Prepayment and the Community. New York: McGraw-Hill Book Co., Inc., 1955.
- Hay, Leon E. Budgeting and Cost Analysis for Hospital Management. Bloomington, Indiana: University Publications, 1958.
- Hays, John H. (ed.). Financing Hospital Care in the United States. Vol. I: Factors Affecting the Costs of Hospital Care. New York: The Blakiston Co., Inc., 1954.
- Walker, W. A. and Davies, W. R. Industrial Internal Auditing. New York: McGraw-Hill Book Co., Inc., 1951.

### Articles and Periodicals

- Bartine, Oliver H. "Supplementary Revenue," Hospitals, Journal of The American Hospital Association, (December, 1941), p. 52.
- Brown, Ray E. "Behind Rising Hospital Costs," Hospital Accounting, Journal of The American Association of Hospital Accountants, (February, 1961), p. 16.
- Bryant, W. D. "Focus on Tomorrow's Hospital Costs," Hospitals, Journal of The American Hospital Association, (February, 1953), pp. 62-65.
- Christopher, W. I. "Labor Turnover." Hospital Accounting, Journal of The American Association of Hospital Accountants, (April, 1960), p. 16.
- Currents in Hospital Administration. Vol. III, No. 2 (June, 1959).
- Godlesky, Vincent W. "Hunt for Hidden Costs," Hospitals, Journal of The American Hospital Association, (February, 1956).
- The Herald. (Bloomington, Indiana) July 13, 1959.
- Hospitals, Journal of The American Hospital Association. "Guide Issue," 1949-1959.





- Hudenburg, Roy. "New Directory, Survey Indicates Patients Pay \$1.00 a Day Below Costs," Hospitals, Journal of The American Hospital Association. (September, 1946).
- Jordan, Robert and Viguers, Richard T. "Ten Year Report on Service and Costs in Seven Small Hospitals," Hospitals, Journal of The American Hospital Association. (February, 1947), p. 56.
- Laetz, E. C. "Accounting's Contribution to Administration," Hospital Accounting, Journal of The American Association of Hospital Accountants. (February, 1961), p. 2.
- Pratt, Henry N. "Factors That Will Shape Future Hospital Costs," Hospitals, Journal of The American Hospital Association. (October, 1959), pp. 53-55.
- Reeves, Robert H. "Hospital Costs High?," Hospital Accounting, Journal of The American Association of Hospital Accountants, (February, 1961), p. 15.
- Rorem, C. Rufus. "What Hospitals Can do about Rising Costs," Hospitals, Journal of The American Hospital Association, (March, 1957).
- \_\_\_\_\_. "Why Hospital Costs Have Risen," American Economic Security, (August-September, 1950).
- Sable, Ernest M. "Housekeeping Cost Control," Hospital Management, (January, 1957).
- Sister Elise. "Cost Reduction through Internal Control," Hospitals, Journal of The American Hospital Association, (April, 1954).
- Snoke, Albert W. "Three viewpoints on hospital costs," Hospitals, Journal of The American Hospital Association, (December, 1951), p. 50.
- Steinberg, Martin R. "The Heart of the Matter," Hospitals, Journal of The American Hospital Association, (June, 1958), p. 43.
- U. S. News and World Report, "The High Cost of Being Sick," (March 16, 1959).
- Wall Street Journal. "Hospital Men Step Up Efforts to Cut Costs, but Face Uphill Fight," (September 7, 1960).
- Wall Street Journal. "The Healthy 'Sick'," (October 12, 1960).
- Wall Street Journal. "Government Steps Up Buying of Low-Price Drugs From Overseas," (November, 1960).
- Wilinsky, Charles F. and Lindley, Nelson O. "Comparing 10 Years of Rising Costs," Hospitals, Journal of The American Hospital Association, (March, 1948), p. 44.



Wilson, W. Travis. "Three Packages on the Cost of Hospital Care," Hospital Management. (September, 1957), pp. 43-45.

#### Reports

Bureau of Medicine and Surgery. Medical Department Orientation. Prepared by the Bureau of Medicine and Surgery for Publication by the Bureau of Naval Personnel. Washington, D. C.: United States Printing Office, 1955.

#### Unpublished Material

Felton, Bernard L. "Considerations in Costing a Progressive Patient Care Hospital." Paper read before the Annual Meeting of the New Hampshire Hospital Association and the New Hampshire-Vermont Chapter of The American Association of Hospital Accountants, Whitefield, New Hampshire, June 19, 1959.

#### Other Sources

Bureau of Medicine and Surgery, Department of the Navy, Washington, D. C.  
Personal interviews with Cdr. Guy O. Morgan, MSC, USN and other members of Comptrollers Division. February, 1961.















thesF96

Rising hospital costs :



3 2768 001 90706 6  
DUDLEY KNOX LIBRARY