A CASE STUDY OF TWO COMPLEX HEALTH CARE INSTITUTIONS WITH CHARGING SYSTEMS FOR NURSING CARE

by

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SUPERVISORY COMMITTEE APPROVAL

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This dissertation has been read by each member of the following supervisory committee and by majority vote has been found to be satisfactory.

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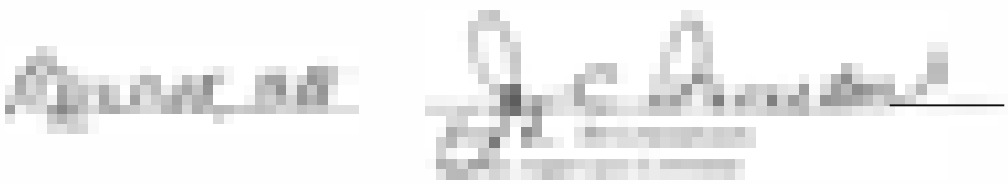
FINAL READING APPROVAL

To the Graduate Council of The University of Utah:

I have read the dissertation of Helen Klutcher Kee in its final form and have found that (1) its format, citations, and bibliographic style are consistent and acceptable; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the Supervisory Committee and is ready for submission to the Graduate School.



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ABSTRACT

A descriptive, case study design was used to describe specific aspects of two complex health care institutions that have charging systems for nursing care. The sample from each institution included the director of nursing services, associate/assistant directors of nursing services, 4 head nurses representing the major medical services provided by the institutions, the hospital administrator, the associate/assistant administrators, the chief financial officer and the assistant financial officer, for a total of 26 interviewees. The questions for the interviews were structured for each category of interviewees. These questions elicited responses pertaining to the organizational authority structure, span of control, financial system, patient care systems, nurse staffing methodology, patient classification system, and various belief issues about charging for nursing care.

The data were analyzed and related to each research question for each group of interviewees. Additional data from written materials were used to describe the study organizations. The research questions were:

1. What are the organizational characteristics of the two complex health care institutions in which

nursing care is charged for discretely?

2. What are the characteristics of the nursing department in the two complex health care institutions where the nursing budget is separated from the general hospital budget?

3. How are charges for nursing care identified separately so as to reflect not only nursing care expenses, but also revenue generated by the nursing department?

The conclusions were that both study organizations have traditional organizational structure following the bureaucratic model. Both hospitals and the nursing departments within these hospitals utilized a system of hierarchy of authority, functional divisions of labor, formalized rules and practices with centralized major decision making and decentralized daily operational decisions. Both nursing departments utilized a patient classification system for data collection for the charging for nursing care system. The two organizations differ in their basic goals, governance structure and numbers of administrative staff of authority.

The results of this study demonstrate that both hospitals were able to design and implement a system of charging for nursing care within their organizational structure, despite differences between these structures.

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CHAPTER I

INTRODUCTION

The health care institution is a formal, quasibureaucratic, and quasiauthoritarian organization. Like most organizations of its kind, it relies on conventional hierarchical work arrangements and on rather rigid, impersonal rules, regulations and procedures. More importantly, however, it is a highly departmentalized, professionalized, and specialized organization that relies heavily on the motivations, actions, self-discipline, and voluntary, informal adjustments of its many members for its internal coordination (Georgopoulos, 1972).

As the largest department within any health care institution, nursing exemplifies a highly professionalized unit with increasing role differentiation. Structurally, the nursing department incorporates many of the bureaucratic characteristics of an organization. Functionally, nurses perform many roles. In an analysis of the formal and informal roles of nurses, Mauksch (1957) indicated that the continuity of the nurse's presence on the patient care unit has important consequences for the nurse's pivotal role in the coordination of patient care. He identified the nurse as functioning professionally as a

provider of direct patient care. Administratively, the nurse supervises the patient care unit. Thus, by virtue of the growing specialization and diversification of tasks involved in patient care, the nurse has become the mediator and coordinator of the various hospital staff whose responsibilities are episodic; thus, these staff come and go, while the nurse is continuous. Mauksch supported the major key roles of nursing services in a hospital as facilitation of patient care.

Health care institutions are business entities, providing a service or multiple services to consumers for a cost to the institution. For this reason, financial management is an important administrative function which is delegated to the department level.

The financial system in health care institutions includes a budgeting process that identifies the revenues and expenses projected for the fiscal year. Most departmental budgets reflect both a revenue and an expense budget. The nursing department, however, is and has been viewed over time as a nonrevenue department; thus, the nursing budget reflects on the expense category.

A number of authors, notably, Lysaught (1981) and Ashley (1976) indicated that the rationale for nursing as a nonrevenue-producing department is rooted in the historical evolution of nursing as a female occupation dominated by male exploitation. A more contemporary

review of the history of nursing by O'Brien (1987) provides the following approach. She interprets the early years of nursing as being associated with the home and with domestic life. Historically, nursing functioned within a domestic environment developed under the supervision of physicians whose patients they were taking care of. Thus, it was not an exploitation of women by men, but, rather, it was a natural evolution of nursing in the home to nursing for a wage in public places. Nurses' roots began in the domestic environment and through time, the development of the profession of nursing has been characterized by a lack of consistent educational and practice goals, a lack of cohesion in intraprofessional organizations, and confusion regarding the use of authority and power, as well as conflict between the educational institutions and clinical agencies.

Throughout the more than 100 years of formal preparation for socialization into the practice of nursing, the subordination and task orientation have continued to influence both the education for and the practice of nursing. According to Lysaught (1981), many nurses were quite comfortable with the concept of male authority and female submissiveness. Nurses were content to provide patient care according to physicians' orders and to allow physicians and administrators to be responsible for decision-making.

While medical practitioners accepted university-based education for physicians as recommended by the 1910 Flexner study (1960), nursing rejected university-based education as suggested by the Goldmark Commission in 1923 (Lysaught, 1981). Both of these professionally-based decisions account for the profound difference in nursing's progress toward autonomy, self-regulation and the perception of eliteness that the medical profession enjoys today. After 1900, the thrust of American medicine was deliberately guided from folk practice to rigorous, scientifically-based inquiry, while nursing continued to emphasize apprenticeship, task learning, and the art of caring.

In addition to the fact that nursing continues to support three levels of basic preparation for professional nurse practice, controversy about the lack of a body of knowledge and unique skills based upon research limits the identification of definitive nursing interventions. Davis (1966), in his classic statement in The Nursing Profession, argues that this was the "natural result of the emphasis of technique over theory in the early hospital training programs" (p. 27). More recently, both the emphasis and content of nursing research have changed. Gortner, Block and Phillips (1976) observed that since 1970, there has been a growing effort to develop a science of nursing practice that will provide for a scientific

basis for the application of nursing interventions to patient care. Lysaught (1981) indicated that the nursing profession has gained authority as a result of "collaborative decision-making between medicine and nursing in terms of joint practice committees" (p. 65) and the expansion of action in nursing practice through the modification of state practice acts.

As the nursing profession gains authority amidst the other health disciplines, it must be recognized that there is conflict within the profession. The conflict is evidenced by the lack of cooperation between the various professional organizations. This weakens nursing's power base to speak to other professionals and the public with one voice that supports a single set of standards for nursing practice.

In summary, the nursing department of any health care institution provides continuous, urgent, and personal patient care utilizing a number of nursing roles and functions. Although contribution of the department is significant to the overall goals of the greater organization, it has not been the custom to identify the department as an independent producer of income. The reason for this custom stems from the historical development of nursing as a routine ritual ordered by the physician. Nursing care is provided to all patients and as a support to the medical (curative) practices of the physician.

Thus, it has never been considered necessary to identify this patient care separately for charging purposes.

Statement of the Problem

Most of the time, nurses do their work within the confines of an organization. Organizations are political structures that operate by distributing authority and setting a stage for the exercise of power.

Zaleznik (1973) indicates that the political structure of the organization leads to conflicts of interest. One area in which conflict of interest is most evident is in the competition for resources. Organizational power is essential when bargaining for resources.

From a purely economic standpoint, organizations exist to create a surplus of income over costs by meeting needs in the marketplace; this is true of hospitals. Consequently, departments that produce income for the organization have more bargaining power.

At the present time, the nursing department is not considered by hospital administrators as a revenue-producing department. Hospital nursing is delivered as part of the service of the institution and billed to the patient as part of the room rate. As the largest department in any health care institution, nursing is seen as the most expensive department that does generate income for the institution but this income is not identified separately. However, nursing as a whole has not been

economically sophisticated. Therefore, nursing has not utilized monetary issues to negotiate for resources.

In order for a nursing department to develop a charging system for nursing services that is separately identified from the general room rate, certain structural and functional characteristics must exist within the organizational environment. This study will investigate the organizational characteristics of two complex health care institutions, as well as the organizational characteristics of the nursing department within these institutions. The purpose of this study was to describe a working model of two complex health care institutions that have characteristic organizational phenomena essential to the successful development of a system of charging for nursing care.

CHAPTER II

REVIEW OF LITERATURE

The review of the literature is divided into two sections. The first focuses on hospitals as complex health care organizations, and includes a definition of organizations, the historical development of hospitals as organizations and the relationship between the structure of hospitals and the structure of hospital financial systems.

The second section concentrates on the literature that describes the structure of the nursing department within the hospital. Included is a description of the nursing budget and its relationship to the structure of the nursing department. An overview of the history of nursing, also included in the second section, provides insight into problems associated with nursing and the nursing departmental budget.

Definition of an Organization

A number of leaders in the organizational field have provided a definition of organizations (Barnard, 1938; Blau & Scott, 1962; Etzioni, 1964; Scott, 1964; Weber, 1960). Weber (1960) defined the organization as a

corporate group, having a social relationship which is either a closed system or one that limits the admission of outsiders by rules. These rules are enforced by the action of specific individuals whose function is to control. Weber also noted that organizations carry out purposive activities of a specific kind.

An organization is defined as,

> ...a system of consciously coordinated activities or forces of two or more persons, that is, activity accomplished through conscious, deliberate and purposeful coordination (Barnard, 1938, p. 65).

Barnard stressed the role of the individual to communicate, be motivated, and make decisions.

The concept of size and complexity is illustrated by indicating that an organization is formal, complex, and may be large or small (Blau & Scott, 1962). Blau and Scott support the Weberian concept of the organization as a closed system controlled by rules and order. Etzioni (1964) indicated that organizations are social units whose function it is to seek specific goals. Organizations are characterized by divisions of labor, the presence of a controlling power center, and a personnel system that substitutes individuals if they are unsatisfactory.

Some additional elements are added to the definition of organizations by Scott (1964). He suggested that organizations are collectivities that have been established to pursue specific objectives. He added that

organizations also include fixed boundaries, authority ranks and communication systems, as well as an incentive system.

All of the above definitions have common elements. None of the authors, however, include organizational environment (i.e., the environment outside the organization which plays a major role in organizational function) in their definitions of organizations.

For the purposes of this study, the definition of organizations as identified by Hall (1972) will be used:

> An organization is a collectivity with relatively identifiable boundary, a normative order, authority ranks, communication systems, and membership coordinating systems; this collectivity exists on a relatively continuous basis in an environment and engages in activities that are usually related to a goal or a set of goals (p. 10).

The elements of Hall's definition are explained in the following ways: an identifiable boundary exists because the individuals in the organization are a select group interacting in a specific fashion for the purpose of attaining specific goals.

Normative order and authority ranks are two major components which differentiate organizations from other social entities. Normative order suggests that individuals in an organization interact in specific ways in relation to the goals of the institution. Authority ranks explain the concept of a chain of command with specific individuals formally responsible for getting the work of

the organization accomplished through a division of labor (Hall, 1972).

Communication systems and membership coordinating systems are explained by Barnard (1938) in his classic treatise, The Functions of the Executive. Barnard supported the concept of man as an individual who is responsible for communicating and coordinating the activities of the organization in order to accomplish the purpose(s) for which the organization exists. He believed that the individual's attitudes, beliefs and motivations are a driving force in maintaining the internal organization environment.

Goals are the reasons for an organization's existence. However, there may be numerous different goals individuals have within the organization that are not contiguous with the broad organizational goals. Zaleznik (1973), on the one hand, promotes cooperative endeavor and commitment to common goals. The realities of experience in organizations, on the other hand, show that conflicts of interest exist among people who are presumably working together for a specific purpose.

The final element of the definition of organizations is environment. Environmental considerations impact organizations in many important ways. Two major categories of environmental conditions are: (a) general conditions that affect all organizations such as the

nation's economy; and (b) specific conditions, both internal and external, that affect only a specific organization such as a direct interaction with another organization (e.g., a company that is a supplier of medical goods).

General conditions include: (a) technology: the establishment of research and development divisions to keep current on new advances; (b) legal: laws of the land set many of the operating conditions of organizations. The importance of this condition is evidenced by the staffs of legal organizations and other experts who form an important part of an organization; (c) political: laws are passed by direct political pressure. Consequently, understanding the political arena and its impact on organizations becomes vitally important. Organizations must devote resources to the lobbying process; (d) economic: perhaps the most crucial variable, it includes competition for resources, supply and demand and other forces that serve as important constraints on any organization; (e) demographic: the market that the organizations serve determines the nature of the organization. Any shift in market force must have a corresponding change in the organizations; (f) ecology: the location of the organization, as well as climate and geography, are examples of ecological conditions that are considered constraints to the organization; and (g) cultural: the

values and beliefs of the community surrounding an organization has a major impact on the way the organization operates. Studies conducted by Crozier (1964) and Abegglen (1958) in French and Japanese organizations, respectively, show that culture permeates the organizational boundaries through the expectations and actions of the personnel. Norms and behaviors that work in one setting may be ineffective or even counterproductive in another.

Organizations are influenced specifically by both internal and external conditions. Evan (1966) introduced the concept of "organization set." The organization set is composed of input and output organizations in interaction with a focal organization. Input organizations are the suppliers of raw materials or personnel. For example, pharmaceutical and medical supply companies, as well as educational institutions, are input organizations for the hospital. Output organizations receive the product from the focal organization, which in the case of the hospital, is the patient. Health output organizations, then, are community health agencies and nursing homes. The autonomy of decision-making in the focal organization is affected by the relationship with other members of the set.

In presenting an additional dimension to organizational relations, Caplow (1964) described the relationship of similar organizations in competition with one another

as influencing the decisions a focal organization makes. For example, two hospitals competing for trauma patients require certain marketing strategies. These are the external conditions that influence organizations.

Internal conditions may bring an organization in contact with other organizations. Aiken and Hage (1968) found that occupational diversity and professionalization of staff members were improved when related to the presence of joint programs among the social welfare agencies they studied. Joint appointments of medical and nursing hospital staff to university faculty are another example of internal conditions of an organization in contact with another organization.

Approaches to Organizational Development

The historical development of organizations includes the classical approach, the scientific movement approach, the human relations school, the behavioral approach, and modern organization theory.

Classical Theories

The best known classical bureaucratic theorist was Max Weber, a German sociologist who postulated the view that bureaucracy, order by rule, is the most efficient form of human organization (Weber, 1960). He developed the typology of bureaucracy that came to be known as the Ideal Type. The elements of this Ideal Type were as

follows: (a) Division of labor, based on specialization; (b) strict hierarchy, based on a chain of command in which power for making decisions flows from superordinates to subordinates; (c) employment, based on technical competence and promotions, determined by seniority and/or merit; (d) impersonality, necessary to separate organizational life from the private life of employees; (e) a fixed salary for bureaucratic officials; (f) elaborate record-keeping; and (g) activities governed by rules.

Individuals within the Ideal Type organization should be fully aware of their responsibilities and task requirements and should adhere to them precisely, according to Weber (1960). He maintained that individual needs and desires were secondary to organizational requirements. Individual satisfaction was obtained through monetary compensation as a result of performance.

Proponents of the bureaucratic approach were interested in the formal-structural system for organizations. As a result of their mistrust of human motives and behavior, organizational design was formulated to insure efficiency and to avoid personalizing the organizational environment.

Scientific Management Movement

In the early 1900s, Taylor (1911) initiated a movement that came to be known as scientific management. The primary goal of this movement was to increase

productivity by achieving a higher level of motivation among workers and greater employer-employee collaboration. Taylor and his colleagues believed that utilization of experimental and empirical methods would result in higher productivity, as well as greater efficiency as opposed to intuition and "rule-of-thumb" approaches.

A basic premise of scientific management was that employees were motivated solely by monetary incentives, and if any motivational problems arose, the remedy was to alter wages, and thereby satisfy the needs of the employees. Taylor believed that people would be satisfied to work if tasks were made simple, repetitive, specialized and, if piece-rate incentives were introduced.

Scientific management has been criticized because the psychological needs of employees were largely ignored. Since Taylor was an engineer, he viewed the functioning of organizations from a mechanical point of view. Employees were seen as units of production or, simply as appendages to a machine.

The proponents of the scientific management approach believe that if a finite body of rules and techniques could be learned and mastered, rules about breakdown of work, span of control, matching authority, and responsibility, then the essential problems of managing large groups of people would be more or less solved (Peters & Waterman, 1982).

The Human Relations School

The human relations school evolved in the 1930s in response to concerns regarding the limitations of the classical approach to the study of organizations. A primary force in this movement was the results of the 5-year studies conducted by Mayo (1933) and colleagues at Western Electric's Hawthorne plant in New Jersey. These studies contradicted the classical view that increased productivity and motivation are results of economic incentives and improved working conditions.

Specifically, Mayo's (1933) studies support the beliefs that the level of production is set by social norms, not by physiological capabilities; noneconomic rewards play a central role in determining the motivation and satisfaction of the worker; the highest specialization is by no means the most efficient form of division of labor; workers react as members of a group, rather than as individuals; leadership is important for setting and enforcing group norms; and there are differences between informal and formal leadership.

Two other leaders of the human relations school are Barnard (1938) and McGregor (1960), both of whom are classical thinkers whose beliefs are supported in contemporary literature. In his classical treatise, The Functions of the Executive (1938), Barnard developed the human relations approach to organizational theory by

indicating that an organization's behavior is the result of combined patterns of individual behavior and that perceptions, beliefs, and knowledge of the individuals in the organization must be taken into account. Barnard believed that the executives in the organization had to secure commitments from employees and had to actively manage the informal organization. Information organization is defined as the behavior, attitudes and motivation of the individuals who comprise the organization. Essentially, Barnard's (1938) theoretical formulation for a successful organization is that human needs must be satisfied while at the same time ensuring that the organization simultaneously achieves its economic goals (Morphet, Johns & Reller, 1982).

A theory of management identified as Theory X and Theory Y was developed by McGregor (1960). He terms Theory X "the assumption of the masses" (p. 56). Its premises are: (a) the average human has an inherent dislike of work and will avoid it if possible; (b) that people, therefore, need to be coerced, controlled, directed, and punished to get them to make the effort to meet the organization's goals; and (c) the typical human prefers to be directed, avoids responsibility, has little ambition and wants security above all. Theory X emphasizes the goals of the organization.

Theory Y, by contrast, assumes: (a) The typical

human does not inherently dislike work; (b) external control and threat of punishment are not the only means for accomplishing the organization's goals; (c) commitment to objectives is a function of the rewards associated with their achievement; (d) the average human being, under the right conditions, seeks responsibility; and (e) the capacity to exercise a relatively high degree of creativity in the solution of organizational problems is widely distributed in the population. Theory Y places emphasis on the goals of the individual. With these contrasting theories, McGregor believes that the theoretical assumptions management holds about controlling its human resources determine the whole character of the organization.

According to the human relations school, the human factor was considered highly significant. It was held that if employees' needs were satisfied, the results would be higher productivity with lower absenteeism and turnover. Criticism of the human relations school centered around the fact that it failed to focus on the nature of work and the natural satisfaction derived from it (Wren, 1972).

Behavioral Theories

The behavioral approach, as opposed to the human relations approach, places greater emphasis on the achievement of higher needs such as self-respect and self-

actualization. In order to fulfill these higher needs in the work environment, promoting employees' sense of achievement and providing for challenging jobs must be recognized by managers as important in fulfilling the needs of employees.

The theories of Maslow (1954), Herzberg (1966), and Alderfer (1972), are presented to support the needs motivational process. According to Maslow, human motivation stems from a set of hierarchical needs. The need categories include: (a) physiological -- the need for food, air and water; (b) safety -- the desire for security, stability, freedom from fear, and anxiety; (c) belongingness -- the desire for meaningful relationships with other human beings; (d) esteem -- a desire for personal achievement, self-respect, and competence coupled with respect from other people; and (e) self-actualization -- an individual's desire for self-fulfillment and achievement of one's full capacity.

Maslow's (1954) needs can be interpreted in the work setting in the following way: basic physiologic needs are delineated to be a desire for food, salary and a comfortable working environment. The safety and security needs relate to a safe environment, as well as fringe benefits and job security. Belongingness needs are the employees' desire to affiliate with their co-workers, to be respected and to have caring, concerned superiors. Esteem needs

include a desire for prestige, status, and respect from others. Self-actualization, a need that is difficult to attain, includes the desire for challenging and responsible work which leads to continued growth, and the need to be the best person possible.

Maslow's (1954) theory is widely accepted; however, researchers have concluded that the five need categories are not independent and cannot be empirically validated (Wahba & Bridwell, 1976). In addition, needs do not disappear upon fulfillment, and needs are not ordered in a hierarchy. For example, an individual can desire to achieve satisfaction of higher and lower needs simultaneously. Alderfer's (1972) need hierarchy theory collapses Maslow's five hierarchical levels to three. The three levels are existence needs, related needs, and growth needs. An individual can progress up the hierarchy of needs or remain in a particular need area until satisfaction occurs. Alderfer's model is less rigid than Maslow's and he believes that more than one need may occur simultaneously.

Herzberg's (1966) theory of motivation utilizes the concepts of hygiene/dissatisfiers and motivators/satisfiers. In the work environment, hygiene factors include policies and administration, supervision, salary, interpersonal relations, and working conditions. Herzberg argues that the hygiene factors have little impact *upon*

the employee's psychological well-being. On the other hand, the motivators, such as achievement, recognition, the work itself, responsibility and advancement are the factors that can contribute to the employee's psychological growth and job satisfaction which eventually lead to excellent performance.

Herzberg's Two-Factor Theory has created controversy among researchers. The results of many studies have shown that satisfiers and dissatisfiers are not necessarily unidimensional and independent. In fact, a given factor may be a satisfier to one person and a dissatisfier to another person (Steers, 1977). It has been argued that the theory is methodologically-bound, that is, the only way to test it is by utilizing the critical incident method, which has been questioned as a valid measurement tool (Steers, 1977). Although hygiene factors are viewed as dissatisfiers, Marriner (1988) indicated that nurses surveyed about their sources of satisfaction identified such hygiene factors as working conditions, hours, staffing and salaries as satisfiers.

Herzberg's Two-Factor Theory relates closely to Maslow's Hierarchy of Needs Theory. However, it approaches the employees' needs from a different perspective. The basic premise of Maslow's theory is that once a need is satisfied, it no longer is a motivating factor while Herzberg's belief is that hygiene factors (dissatis-

fiers) continue to exist because, although fulfillment of these factors may prevent dissatisfaction, it does not lead to satisfaction. Consequently, hygiene factors are not perceived as motivators. Both Maslow and Herzberg have contributed to understanding work motivation by recognizing the importance of factors in the work environment (Argyris, 1971).

Modern Organizational Theory

The fourth categorization of organizational theory emerged in the late 1950s. This approach attempted to integrate the previous theories into one entitled modern organizational theory. Modern organizational theory draws upon systems analysis to solve problems concerning the structure and functions of an organization in terms of its decision-making capabilities. Behavioral factors and the physical environment are considered to be interdependent. The elements of the organization are interrelated through information networks, control or feedback mechanisms and decision-making processes (Scott, 1965). The theory postulates that there must be congruence between the internal organizational characteristics and external environmental requirements, if the organization is to perform effectively.

The most recent trend in organizational study is the incorporation of political considerations. Competition, negotiation, bargaining and power are terms that are used

increasingly as the external economic and political climates affect organizations (Kraegel, 1980).

Each of the theoretically-based approaches contributes to an understanding of the dynamics of a formal organization. A specific formal organization that embodies elements of the bureaucratic, scientific, human relations, behavioral and modern organization theories is the complex health care institution.

Complex Health Care Institutions

For the purposes of this study, complex health care institutions are defined as acute, tertiary care hospitals, rather than community health agencies. However, many organizational processes discussed apply to community health agencies, as well.

The major purposes and objectives of hospitals have changed greatly during the course of historical development. From alms houses to pest houses, orphanages, and shelters for the aged, infirmed and insane, hospitals have developed into agencies of medical care, research and education, directly and indirectly benefitting almost all members of the modern community.

The modern hospital is a result of the intricate interplay of many factors which include scientific and technological change, as well as social, economic, demographic, religious and political factors that have affected the dynamics of professional development and

organizational differentiation (Heyedebrand, 1973).

According to Georgopoulos (1972), the modern hospital, as a large-scale, complex entity, incorporates all the characteristics of a formal organization. Utilizing the research studies of Miller (1965), Katz and Kahn (1966), and Buckley (1968), Georgopoulos describes the hospital from the perspective of organizational theory.

> Hospitals are complex, work-performing and problem solving systems which exhibit a high degree of structural and social-psychological complexity (1972, p. 13).

Georgopoulos and Matejko (1967), in their studies of hospitals, describe these features: The primary objective of hospitals is to render patient care and professional treatment to individual patients. Additional objectives (particularly teaching hospitals) are to conduct research and to teach students. Professional care to individual patients is provided by assessing the needs and requirements of each patient by a host of specialists. For this reason, much of the work within this system cannot be mechanized, standardized, or preplanned. There is greater variability in hospital work than in industry or other complex organizations. Thus, the structure that embodies task-orientation, impersonality, and authority orientation, is in direct conflict with the requirement for individualized and personalized care based on needs *of* the patient, as opposed to generally-accepted organizational

rules and standards.

The hospital in its present organizational form cannot function effectively without compliance by members with existing rules, regulations, and prescriptions for role performance that results in regimentation of behavior. Conversely, professionals (i.e., physicians and nurses) who teach in hospitals may also be academicians, have a strong need for personal independence, freedom, and autonomy in their work, which are in conflict with the regimentation that hospitals require.

The issue of multiple lines of authority in the hospital system is discussed by Heyedebrand (1973). He terms these the clinical-therapeutic professional versus the administrative-authority systems. Specialists and professionals tend to be committed to their profession more than to the organization where they work. Furthermore, they presumably have the expert knowledge and technical competence required to perform their roles relatively autonomously, but many organizational decisions that affect them and their work often are made by administrators who have legitimate organizational authority to do so. The administrators ordinarily have good knowledge of hospital organizations, but very limited technical, medical, or nursing expertise. These circumstances often lead to serious conflicts about authority issues when decisions have to be made.

The hospital is an organization with a remarkable division of labor (Georgopolous, 1972). People with extremely different skills and abilities and very unlike backgrounds are in frequent interaction. Work in the system is highly specialized and divided among a great variety of rules and numerous members with heterogeneous attitudes, needs, orientations and values. Although the organization formally defines the roles of its members, it is constrained by the societal definitions of the major professional roles of physicians and nurses. Even though the institution has an exquisite division of labor, the participants must work interdependently because their work is highly interrelated. Several studies on hospital structure (Blau, 1965; Perrow, 1961; Strauss, Schatzman, Ehrlich, Bucher & Sabshin, 1963) reported by Georgopoulos indicate that the hospital is a dynamic, complex, interdependent organization in which the largest percentage of participants are professionals in conflict with the bureaucratic characteristics of the organization.

Administrators of modern organizations are increasingly recognizing that the bureaucratic style of management inherently prevents interdisciplinary cooperation because of the organization's rigid hierarchical system of control. The complexity of organizations, particularly hospitals, that by their very nature have many diverse activities and programs, lends itself to the matrix form

of organizational management.

Hospitals are considered to be matrix organizations. They combine the hierarchical (vertical) coordination through departmentalization and the formal chain of command, while at the same time, they require lateral (horizontal) coordination across departments that provides the patient care team (Neuhauser, 1972).

The advantages and disadvantages of the matrix form of management are discussed by Smith and Eisenberg (1980). The advantages include the efficient use of resources and the reduction of duplicate efforts. The disadvantages are caused by the conflict that may occur because of the need to report to more than one supervisor; the necessity to develop trust and constructive working relationships among individuals from different disciplines; and the leader must use influence, rather than formal hierarchy.

Financial Structure in a Complex Health Care Institution

The relationship between a typical hospital organization's financial structure and the structural and functional characteristics of the institution is discussed below. The financial structure is developed and controlled by the administrative authority system.

The hospital is defined as a corporation with all the rights of a legally-constituted corporation, but, unique in that the purpose of its corporate existence is that of

rendering service to persons who are in need of medical attention and hospital care (Seawell, 1975). There are for-profit and nonprofit hospitals with the former seeking a return on its investments while the latter maintains the position of a charitable institution providing a health-related service to anyone needing it. The designation of nonprofit implies that although the hospital can earn a profit, it cannot benefit any private individual.

The basic principles of accounting and financial management are much the same for hospitals as they are for profit-seeking commercial businesses. There are, however, certain constraints on the extent to which "business" methods can be applied to hospital accounting and management. Due to the nonprofit nature of most hospital organizations, they are exempt from many of the taxes assessed on commercial businesses. Hospitals have made a practice of rendering some amount of free or partially free service. Even though reimbursement may be received from third-party organizations, it generally is less than the real economic cost of providing such care. Seawell (1975) indicates that a hospital is a "business" in that many principles of sound business management are just as applicable in that setting as they are in a large manufacturing corporation.

Hospitals, although similar to other businesses, differ in a number of ways from the ordinary business

organization. Some of the differences include the fact that hospitals are labor intensive with the labor force made up of a significant number of skilled professionals; generally, employees are retained even when the workload fluctuates; and many positions are filled on a standby basis regardless of the workload of the internal organization. For example, delivery rooms and the emergency department are continually staffed while the operating room, laboratories, and radiology maintain an "on call" staff. Hospitals are high technology equipment intensive, with the cost of replacement of this equipment one of the factors in the high cost of health care. Every hospital must be able to determine the costs of the services it renders and to justify such costs so that revenues may be secured to cover the true costs of the services provided (Schlag, 1981).

Finkler (1982) discusses the distinction between cost and charges. He indicates that individuals in the medical community assume, since most hospitals are nonprofit, that price (charges) is set to be equal to cost. Costs are defined in two ways: Economic cost is the price paid for the resources consumed as in the care of a patient in any one of the nursing units, and accounting cost is the price paid for units of service that include the allocation of expenses from nonrevenue-producing departments such as nursing, housekeeping, maintenance, and administration.

In this case, the accounting cost for the care of the patient includes a price that reflects the allocated expenses. This system is called cross-subsidization where patients pay an equal amount whether they receive the care or not.

The basis for rate setting from which charges are developed include four basic methods (Finkler, 1982). They are: (a) the weighted procedure method in which a number is assigned to a procedure based on its relative resource consumption, as is the procedure most often used in laboratories; (b) the hourly rate method is based upon the amount of time a procedure requires and is generally used for surgery, anesthesia, and respiratory therapy; (c) a surcharge method is used for departments in which items such as supplies pass through (e.g., central supply and pharmacy); and (d) the per diem method is appropriate when averaging occurs across patients, such as with the allocation of the expenses of nonrevenue-producing departments. Charges are the result of cost-center allocation, bad debts, overhead such as utilities, and a small profit for future construction and new programs.

A 7-year study of costs broken down by department or function from a sample of 457 hospitals of varying size and ownership was reported by Ashby (1982). Results indicated that the largest cost increases occur in the ancillary services, particularly respiratory therapy and

radiology. Slightly higher than average increases in costs were noted in the inpatient services, particularly special care units. The costs in investor-owned hospitals rose faster than private, nonprofit institutions. The cost in teaching hospitals increased at a lower rate than nonteaching hospitals. The largest hospitals (400 beds and above) incurred above average cost increases. The recurring theme throughout the analysis of cost trends was that intensity of service charges in ancillary services departments and inpatient special care units appears to be a significant factor in hospital cost inflation.

The hospital, as any other economic entity, must live within its means and thus, its operations are subject to fiscal constraints. To meet its objectives, the hospital must have careful planning and effective control with respect to the resources required in the provision of health care services.

Budgeting is essential to the successful management of today's hospital. A budget is a formal plan of future operations expressed in quantitative terms and serves as a basis for subsequent control of such operations. The budget has two major components: expense and revenue (Liebler, Levine & Dervitz, 1984).

Expense budgets are identified using four different options. These options are **line items** in which expenses are grouped by major items of expenditure (e.g, *salaries*

are broken into several categories, medical supplies, pharmaceutical supplies and office supplies); **program** in which detailed budgets for each program are shown; **medical services** where costs are associated with each category of medical services; and **responsibility center** in which costs are accumulated according to any organizational unit headed by a manager. The most common practice for the expense budget of a hospital appears to be to use all options selectively. The most frequent options used are a combination of responsibility centers (cost centers) and line item groups of expenses (Vraciu, 1980).

Major changes have occurred in the number of revenue-producing activities and the importance of each source of revenue. These changes have occurred because of increased technology and different systems of reimbursement. Due to the growing complexity resulting from a large variety of specialized services to many types of patients in various medical and financial classifications, the emphasis on clearly identifying revenue sources within the hospital structure is now requiring more detailed accounting information (Seawell, 1975).

Revenues are classified according to the pattern of the organizational structure. For example, in the nursing department, revenue classification is broken down by individual nursing units. Patient service revenues are classified in the accounts (each nursing unit) from which

the revenues were derived. Patient service revenues of the hospital are those derived from the provision of room, board, nursing, and other professional health care services to patients, which includes ancillary services such as radiology and central supply. One classification subsumed under patient revenues is daily patient services. It is this category of revenue that includes room, board, and general nursing services and is billed as room rate. The "lumping" together of these components into one charge is based upon the routine nature of these variables. All patients within a hospital receive these services (room, board, and nursing) continuously and routinely. This rationale does not account for the lack of charging for the episodic care provided by nurses in the operating room, delivery room, recovery room, and emergency services (Seawell, 1975).

The control of costs is directly related to the amount of revenue a hospital can receive. In the present reimbursement system based upon Diagnostic Related Groups (DRGs), the control of cost is directly related to the amount of profit a hospital can accrue. According to Hartley and McKibbon (1983), DRGs are derived from a disease-based classification system that also uses absence or presence of procedures, age, and complicating conditions to classify patients. In their study of cost control in hospitals, Griffith, Hancock, and Munson (1976)

found that 80% of annual expenditures were under departmental control. The 80% of department controllable costs was in manpower costs, and half of these were in nursing.

Seawell (1975) states that for a business, in this case the hospital, to remain viable, it must have internal controls. The basic elements of sound internal control include unity of command, clear line of authority and responsibility, a system of authorization and record procedures, and the quality of personnel must be commensurate with responsibilities. A conflict exists in the requirements of the authority system part of the hospital, which controls finances, and the professional system that values the nonbureaucratic approach to their work in the organization.

Comprised primarily of professional nurses, the nursing department has an additional concern: the lack of incentives to control costs and follow financial procedures, as the nursing department does not realize any rewards based upon defined revenues attributable to their specific professional activities.

The Nursing Department within the Hospital

For the most part, complex health care institutions retain the bureaucratic model of organizational structure. The central theme of the bureaucratic model is the authority system and control by rule. Each complex health

care institution is comprised of a number of departments that provide the institution with specialized services. Alexander (1978) indicates that all organizational structure should be designed to establish efficient, logical and effective interrelationships between individuals of the organization to attain the organizational objectives. The nursing department of any health care institution is one of the largest departments with its own organizational structure.

The structure of the nursing department is based on the philosophy and objectives of the nurses administering and working in the department. However, because of size and complexity, many elements of the bureaucratic model are utilized.

In order to provide efficient and effective patient care, the typical nursing department is structured formally utilizing Weber's (1960) characteristics of a bureaucracy. The first characteristic is the **division of labor based upon specialization.** Petit (1975) states that the functions of the nursing department are differentiated such that separate divisions of the department are responsible for the performance of specialized services to the clients. Stevens (1980) indicates that the nursing service system is subdivided into divisional units identified as nursing units. This division is based upon criteria that accomplish the department's objectives and

allow for the division of labor based upon specialization, function, homogeneity, similarity of services, or geographic location. Conceptions of roles and functions occur in horizontal or vertical directions. According to Alexander (1978), the vertical organizational hierarchy establishes the management role structure and the basic communication and authority structure, while horizontal differentiation identifies the different subdivisions of the department as they relate to the division of labor.

The second characteristic of a bureaucracy is the **hierarchy of authority** in accordance with chain of command. Concepts that determine the authority structure are centralization and decentralization and line and staff authority. Marciniszyn (1971) defines centralization and decentralization as the degree of delegation of responsibilities, power, and authority to lower levels of an organization. These concepts differ only in degree because if a system operated under complete centralization, subordinates would have no responsibility, power, or authority and the objectives of the organization would not be accomplished. Conversely, complete decentralization would result in a lack of coordinated, organized activity.

Marciniszyn (1971) asserts that decentralization focuses on the human element in an attempt to incorporate behavioral ideas into the organizational structure. It provides for the professional nurses to participate in

decisions that affect the practice of nursing and gives the degree of power and authority that may tend to increase the motivation and satisfaction frequently lacking in a strongly centralized organizational structure. Centralization of authority is the essence of bureaucracy and is frequently in conflict with the values of a highly professionalized organization.

The staff, line, and functional concepts of the authority structure identify formal authority relationships. Herbert (1976) defines these concepts. The line structure, consisting of direct vertical relationships, connects the positions and tasks of each level with those above and below it. Herbert indicates that line structure is indispensable to all organized efforts. Staff authority services the line structure in an advisory capacity with no authority to put recommendations into action. Staff positions are frequently seen in nursing inservice divisions of the nursing department. Functional authority permits an individual in a given set of activities, such as nursing practice and standards, to enforce directives within a limited scope of authority. Figure 1 presents an organizational chart depicting the relationship of the authority structure within a nursing department.

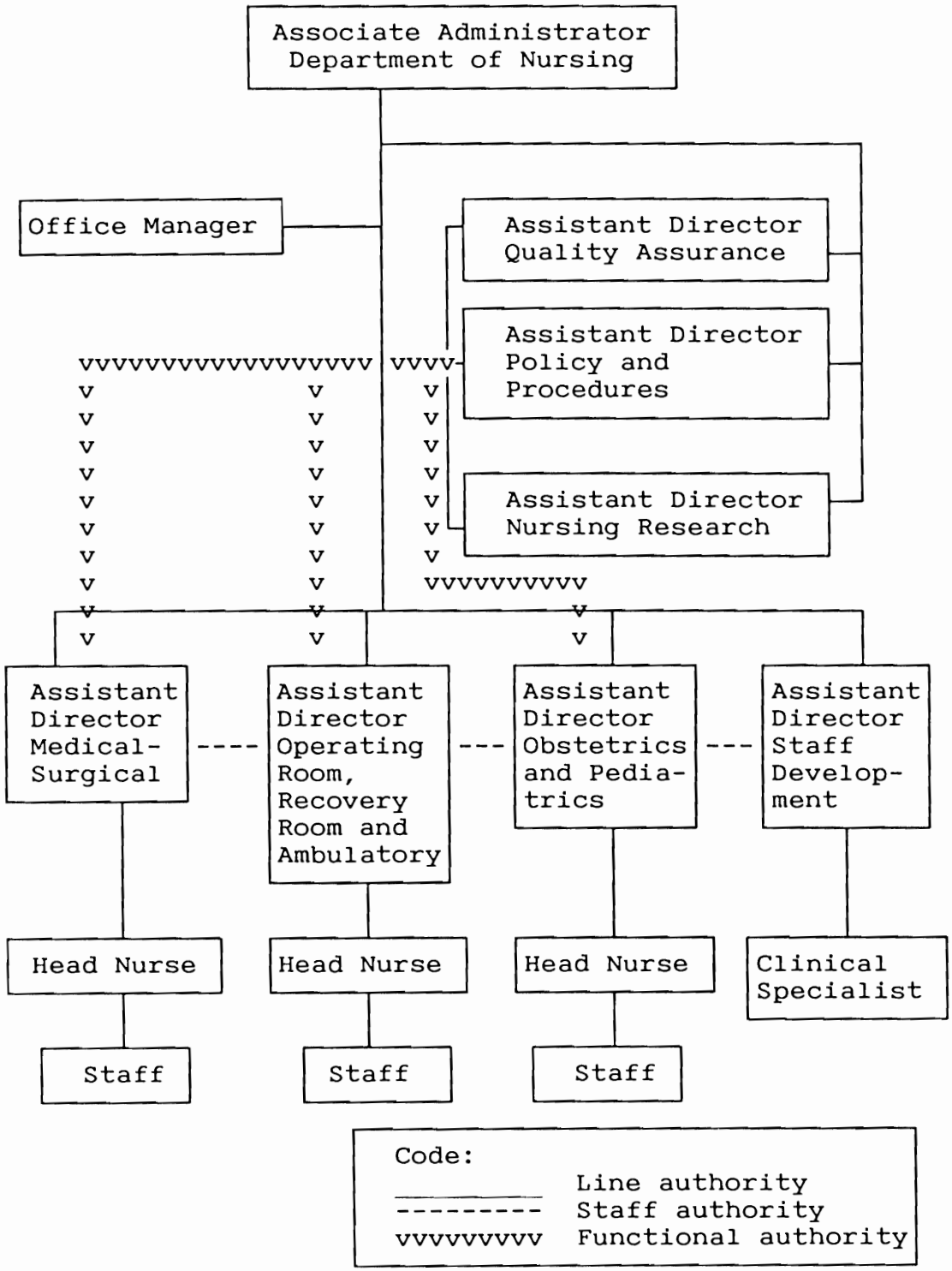

Figure 1. Organizational chart.

Recruitment and selection based on technical merit is the third characteristic of a bureaucracy and is accomplished by requiring job descriptions of all the positions in the nursing department. The fourth characteristic of a bureaucracy, **promotion based upon seniority** is not strictly adhered to because promotion of professional employees is based on competence, unless the nursing department is a collective bargaining unit and seniority is part of the contract.

Rules and regulations, the fifth characteristic of a bureaucracy, guide the activities of employees of the organization. The nursing department follows the general rules and regulations of the organization in respect to specific personnel practices such as payroll policies and reporting from work. Procedures and standards of practice guide the professional activities of the nursing staff. Systems of providing patient care such as primary and/or team nursing models are determined by the departmental philosophy and objectives.

Impersonality of employees is identified as the sixth bureaucratic characteristic of professional conduct. Impersonality is a formal approach to interpersonal relationship within the organization to fulfill the organizational objectives.

Maintenance of files and written records, the seventh characteristic of a bureaucracy, is essential for *legal*

reasons, as well as a means of communication. Scott and Mitchell (1976) indicate that written records are basic tools for planning and decision-making with an organization.

Financial Management of the Nursing Department

As with other departments in the organization, financial management of the nursing department is predicated on the use of the budgeting process. Sonberg and Vestal (1983), in their article entitled "Nursing as a Business," detail reasons why nursing administrators must become sound business managers. One reason is the need for nursing to have financial control as a source of professional power to influence governmental funding. Another reason is cost containment plans which have focused increased attention on delivery of cost-effective nursing services.

A model for nursing finance is described by Sonberg and Vestal (1983). This model is made up of the activities of planning, budgeting, and evaluating processes as a means for making operational decisions. Planning for the fiscal year is necessary to determine the ultimate distribution of dollars in the budget. Planning should center around departmental objectives in terms of new programs, nurse/patient ratios, and the mode of nursing care delivery, as well as the impact of other departmental

activities on the nursing department. Budgeting, which is the allocation of resources to assure the accomplishment of departmental goals, is formulated after the planning process is completed.

Administrators of health care institutions formulate several types of budgets; however, the nursing department administrators participate in compiling only the operating and capital budgets. The operating budget includes the revenue and expense budgets. The expense budget has two components: personnel (manpower) and operational (equipment and supplies). The nursing department administrators do not submit a revenue budget. The capital budget is money earmarked for the purchase of permanent equipment or major renovation and construction (Seawell, 1975).

The final component of the financial management process is evaluation, which should be conducted frequently and regularly by the nurse executive, as well as the rest of the management team. The purpose of the evaluation process is to identify how well the departmental objectives are being met in financially quantifiable terms.

Some reasons for the nurse executive to be intimately involved in the hospital's internal political atmosphere with respect to budgets are indicated by Covaleski and Dirsmith (1981). The nurse executive represents the nursing department, which may account for as much as 70%

of the hospital's operating expenditures. Wildavsky (1984) argues that the bonds between budgeting and politics are intimate and that the allocation of resources reflects the distribution of power. According to Covaleski and Dirsmith (1981), budgeting enables the nursing service at least to "give the appearance of coming to grips with inefficiency and rising costs" (p. 18).

In his study of allocation of nursing resources, Young (1973) indicates that although diagnostic and prescriptive decisions are primarily made by physicians, decisions concerning the provision of daily patient care are the ultimate responsibility of the nursing staff. Traditionally, nursing care provision has been based on rule-of-thumb and historical measures of peak need based upon bed occupancy. Such procedures have not responded to the highly variable demand for care.

Patient classification systems are one method of collecting data to identify patient care needs, which can then be translated into revenues and cost of nursing care. Hartley and McKibbon (1983) discuss patient classification systems. Acuity or severity-based classification systems include a wide variety of systems used in different types of institutions and serving different purposes.

The variables upon which the classifications depend are typically measures of the patient's independence level; they include the amount of help needed with

mobility, diet, or bathing, and frequency of required medication, observation, or treatments. Other systems may include measures of teaching and counseling activities or indirect patient care. Hartley and McKibbon (1983) discuss several patient classification systems: the GRASP system uses acuity information to calculate the number of nursing care hours needed per patient day; and a 7-category classification system upon which relative value points are used to calculate a standard charge for nursing care is being used at St. Luke's Hospital in Phoenix, Arizona. An acuity based system, that goes beyond the variables mentioned, is the severity of illness index developed at Johns Hopkins University, which includes measures of the stages of disease, responsiveness to intervention and complications, as well as dependency and nonoperating room procedures. Relative intensity measures is a classification system developed in New Jersey, which utilizes disease entities, surgical procedures, complications and age as a cost allocation mechanism for nursing costs.

A charging system for nursing care based on specific services, rather than on a patient classification system, was developed at South Miami Hospital in Miami, Florida (Higgerson & Van Slyck, 1982). This system is used in the emergency room, labor and delivery, acute hemodialysis, preoperative, and endoscopic departments.

Nursing diagnosis is being used in a few places as a basis for patient classification (Hartley & McKibbon, 1983). The Visiting Nurses' Association of New Haven, Connecticut and the Visiting Nurses' Association of Omaha, Nebraska have implemented nursing diagnosis for patient classification purposes.

Several limitations of the current patient classification systems are discussed by Giovannetti (1979). These systems generally do not have built-in indicators that identify the psychosocial and teaching components of nursing care; therefore, they do not constitute a comprehensive assessment of the total care needs of the patient. Patient classification systems utilize two methods of quantification: one based on average care times for each patient category; and the other based on standard care times for specific nursing procedures, reflecting the fact that the patient classification systems are based on time measurements as a basis for nurse resource allocation and inherently do not measure all of the activities that the nurse performs (e.g., care plans, record keeping and communication with other professionals about patient care).

Reliability and validity of patient classification systems are important to achieve. Chagnon et al. (1978) indicate that validity is the degree to which a device measures what it purports to measure. Patient classifica-

tion systems do not represent a valid tool for measuring patients' actual needs for nursing care. More accurately, these systems group patients in terms of the amount of nursing care time received according to a standard of care, or to perceived nursing care requirements.

Giovannetti (1979) discusses three types of validity: face validity, content validity and criterion-based validity. Face validity refers to the degree to which an instrument **appears** to measure what it purports to measure. If a patient classification system appears to contain the elements representing the factors that determine time needed to care for patients, the tool can be said to have face validity. Content validity refers to the instrument's ability to adequately represent the domain it is supposed to measure, such as patients' requirements for nursing care time. One example of judging for content validity is when criteria for classification are presented to a panel of nurse experts who examine the criteria to assure that it is representative of a specified universe of content. Criterion-based validity refers to the degree to which the measurements of an instrument correspond to other observations or measurements that accurately measure the same data base. A comparison of nursing care required as measured by the classification system in comparison with observations of the nursing care received *is* one measure of criterion-based validity. Reliability is the

degree of consistency with which an instrument measures whatever it is intended to measure. A patient classification system is reliable if a particular patient is placed in the same care category by different nurse raters.

In summary, patient classification systems are effective tools in the allocation of nursing resources in direct patient care, but these systems do not consider time involved in indirect activities necessary for the provision of nursing care. Another disadvantage of these systems is that measurement is based on standards of care without regard to outcomes; therefore, quality of care is not validated by the patient classification systems even though they may pass the validity and reliability tests. Thus, patient classification systems as they are currently conceptualized and operationalized may not be the best criteria for charging for nursing services.

An Overview of the History of Nursing

A brief review of the history of nursing provides the reader with a basis for understanding the place of contemporary nursing within the financial and social system of a health care institution.

Traditionally, the job of caring for the ill was given to the women in society. In earlier times, ill and handicapped individuals were usually segregated and viewed as unproductive and worthless. The skills necessary to care for these people were exhibited almost exclusively by

women in most societies. Education was by word of mouth or by trial and error. Status was low and caring for the sick was viewed as demeaning and unprestigious with very few rewards. The esteem associated with providing care for the ill came with the investigation of ways to alter the course of certain illnesses. New discoveries, technologies, and opportunities in this century provided for ways to cure diseases (England & Davis, 1986).

Historically, men have obtained formal education while women were expected to remain at home. The curing of disease was associated with specialized education while caring for the sick was within the realm of females with a natural tendency for providing this service. Thus, society had come to respect the physician because of specialized skills, as opposed to the nurse who, during earlier times, did not need any formal education (England & Davis, 1986).

Formal nursing education began in the early 1900s with the advent of the hospital school of nursing. Administrators recognized that a "nursing school" provided a young, disciplined, and cheap labor force in exchange for training. The service needs of the hospital continually overrode the educational requirements of the schools (Finch & Groves, 1983).

Early nursing was built on a model that relied on the concept of duty as a basis for authority. Thus, nursing

emphasized training in discipline, order, and practiced skills. There were no accepted standards for how much work an average student should do or how many patients should be cared for. There were no mechanisms for enforcing any standards (Reverby, 1987). Most nursing education was provided by physicians who taught a watered-down version of medical lectures.

Over the years and into the 1940s, the nursing leadership comprised of educators and nursing supervisors struggled to raise educational standards, develop criteria for entry into training, to license nurses once they graduated, and to gain acceptance for the knowledge base and skills of the nurse (Reverby, 1987). The call to "duty," as the basis for nursing, continued to compromise the ability to move away from this model to one of individual rights (Ashley, 1976).

Historically, the culture of nursing supported minimal education and an emphasis on "womanly virtues" and "spirituality." These women did not believe that becoming a professional with the control and autonomy that is inherent in professionalization was necessary. At the same time, there were nurses who were against the "missionary spirit" and who demanded decent wages and improved working conditions. Because these nurses were interested in joining industrial unions, *rather* than the professional nursing organization, the American Nurses'

Association became, in 1946, the official bargaining unit in an effort to quell the movement into industrial unions and to control disputes between nursing leadership and working nurses. Much has changed in nursing over the last 40 years. Nursing education has been severed from the hospital's nursing service. The majority of nurses are now educated in colleges, not hospital-based diploma schools. Nurses are experimenting with numerous ways to organize the nursing department in order to provide nurses with more responsibility and sense of control over the nursing care process (O'Brien, 1987).

In other ways, nursing continues to be controlled by strong roots of dependence and duty to "care," rather than the right to make independent decisions based upon professional autonomy. For example, in 1984, the Massachusetts Board of Medicine tried to push through a regulation that nurse practitioners acknowledge their dependence on physicians by wearing a badge that identified their supervising physicians and stated that they were not doctors (Reverby, 1987).

Within the profession, nursing is divided over what counts as a nursing skill, what is the "right" education for nursing and what is the worth of the values of caring that are part of its heritage. Hull (1985) points out that the first legal case on comparable worth was brought by a group of Denver nurses. Essentially, this case

argued that the value of providing nursing care was equal to the value of the physician's right to provide medical cures.

Church and Poirier (1986) suggest that nursing has traditionally hovered in a state of ambiguity "Either she proclaimed herself a woman and, therefore, less of an achieving individual or an achieving individual and, therefore, less of a woman" (p. 1). It was not until the late 1950s that women, particularly nurses, began to react to the occupational constraints imposed on the traditional female roles and occupations. By the 1960s, various social reforms such as the consumer movement, the civil rights movement, and the women's movement, resulted in women utilizing opportunities to define the kind of health care they gave.

Into the 1970s, nurses and physicians began extolling the virtues of comprehensive care, total care, holistic care, and primary care. Specialist roles provided the opportunity for nurses to advance in status without having to move into administrative or teaching positions. They included clinical nurse specialists who are experts in specific medical-surgical services, nurse practitioners, nurse anesthetists, and nurse midwives (Lauer, 1985).

In addition to specialist nurse groups, other groups such as respiratory therapists, physician assistants, and clinical pharmacists came into being and took over patient

care tasks formerly accomplished by the regular staff nurse. These nonnursing groups were quick to become an item on the patient's bill. Specific economic arrangements for nursing practice occurred with the 1977 Rural Health Clinics, which authorized reimbursement for nurse practitioner services in rural districts. Nurse-midwifery services are billed separately, while nurse anesthestist's services are subsumed under the professional fees of the physician anesthesiologist.

Because they are part of large, complex systems with long, ingrained histories, nurses in inpatient hospital practice have a harder time documenting their costs and benefits that result from those costs; thus they are less apt to engender a strong case for being separately identified on the patient's bill (Baer, 1987).

Today, nurses participate more actively in decisions about their own scope of practice and contribute to the greater health picture. Nevertheless, certain long-held traditions create obstacles in moving nursing to an independent, autonomous occupation with status and position that puts it side-by-side with other professions.

Conceptual Framework

The lack of relationship between cost of nursing services and the revenue contribution of nursing services to hospital operations is a subject of concern. Nursing care is one of the primary reasons for admitting patients

to hospitals. The nursing department is of central importance to the functioning of a hospital. However, because of its size and estimated cost, which varies from 30-60% of total hospital costs, nursing becomes a prime target when budget reduction or cost control is anticipated.

The manner of charging for nursing care is through the per diem system, which is calculated on length of patient stay. The cost of nursing is averaged and dispersed equally among all patients. This historical manner of costing out nursing services has seriously hampered nursing's growth as a visible profession. This system of charging the consumer devalues the importance of nursing care and presupposes that all patients have the same needs (Joel, 1983).

Accounting practices, which include cross-subsidization of ancillary services by the nursing department, must be considered when evaluating the cost of nursing services. Riley and Schafers (1983) indicate that nursing costs that range from 30 to 60% are predicated on the room rate only and not as a percentage of the patient's total hospital bill. McKibben (1982) found that nursing department salary expenses comprised 11% of total hospital expenditures. Similarly, Walker (1983) found that actual nursing costs constituted 14 to 21% of total hospital charges. These authors indicated that, when nursing

department expenses are removed from room rates and overhead allocation costs, nursing expenses represent a relatively small fraction of total hospital costs.

Historically, the key disability of nursing, aside from its female orientation, was its dependent relationship to organized medicine, which has served to limit its advancement. However, with the current focus on cost containment of health care, physicians and nurses are beginning to recognize the need for developing collaborative relationships with regard to care delivery, research and education, and using market forces as incentives to blend individual talents to benefit everyone (Roncoli & Whitney, 1986).

The trend toward costing out individual components of care and developing cost and revenue centers has given nurses an opportunity to determine the economic value of the care they provide. At present, literature reveals a number of complex health care organizations that are charging for nursing care on a discrete basis. Higgerson and Van Slyck (1982) report a charging system developed at St. Luke's Hospital in Phoenix, Arizona. The basis for charging for nursing services is a patient classification system whereby patients are classified according to the level of care. For each level of classification, the required staffing and supplies serve as the cost basis for the charges required. Hartley and McKibbin (1983)

describe a nursing revenue system developed at St. Joseph Hospital in Minot, North Dakota, utilizing an acuity-based patient classification system. The charges are computed by quantifying the number of hours of nursing care required by skill level for each type of personnel.

A nurse charging system was developed using diagnostic related groups (DRGs) as the basis for rate setting at St. Paul Ramsey Medical Center in St. Paul, Minnesota and was reported by Riley and Schaefers (1984). Caternicchio and Davis (1983) measured nursing resource use in a way that permitted the allocation of nursing costs on a per case basis by discharge diagnosis.

Casper (1984) reported in The American Nurse on a survey of hospitals that were determining or planning to determine the costs of nursing services in their settings. The sample included 67 hospitals chosen by state nurses' associations; 40 hospitals responded. Results indicated that 82% of the hospitals were attempting to develop systems for determining the cost of nursing services in their settings, while 18% were currently identifying the cost of nursing services in their institutions. Fifty percent reported using all nursing personnel which includes registered nurses, licensed practical nurses, and nursing assistants as a cost unit, while 33% of the institutions used the patient days as the cost unit, and 17% reported the unit of cost by diagnostic related groups

(DRGs).

Results also indicated that all of the hospitals studied utilized acuity-oriented patient classification systems for determining the cost of nursing services. Twenty-three percent (6 hospitals) that billed for nursing services were paid by third-party payers for the services billed.

The objective of the Casper (1984) survey was to document the initial impact of DRGs upon nursing services, as well as to document the methodologies being used to determine cost of nursing care in the hospitals surveyed. Grimaldi and Micheletti (1982) and Curtin (1983) discuss the need to further relate intensity of patient care needs to the new prospective payment system which is based on payment according to DRGs.

In summary, the review of literature reveals that health care institutions and the nursing departments within these institutions have structures that are consistent with the bureaucratic model of organizations. The bureaucratic model provides certain organizational characteristics such as a division of labor, clear lines of authority and formal rules and regulations that form the umbrella within which the employees do the work of the institution. Within this milieu, the nursing department is the most labor-intensive and the largest spender of health care dollars in the institution; yet, historically

nursing has not been held accountable for its services monetarily. Reasons for this, as presented by Toth (1984), are that until recently, many Directors of Nursing were not properly credentialed and were not expected to know what sound business practices entailed. Nurses, in general, have not been viewed, and did not view themselves as independent practitioners whose services should be measured in terms of a discrete dollar figure.

Despite these beliefs, providing a mechanism for indentifying quantitatively the variations in nursing care required by hospitalized patients is just a good business practice. Applying an accounting system that develops costs for these nursing care services provided creates a method of tracking the true costs of the nursing department.

In order for the system of charging for nursing care to be developed, it is assumed that certain organizational characteristics must exist. The literature contains articles describing patient classification systems that identify patient needs for a data base for costing out nursing care. It did not contain any studies or articles that the investigator could locate that define general organizational characteristics important to the development and/or maintenance of a charging system for nursing care.

Research Questions

The following research questions were formulated and guided this research:

1. What are the organizational characteristics of the complex health care institutions in which nursing care is charged for discretely?
2. What are the characteristics of the nursing department in the two complex health care institutions where the nursing budget is separated from the general hospital budget?
3. How are charges for nursing care identified separately so as to reflect not only nursing care expenses, but also revenue generated by the nursing department?

Definition of Terms

The following definitions were formulated for this investigation.

Organizational Characteristics

Organizational characteristics of complex health care institutions include the structure, functions, and goals of the organization.

Structure

Structure is defined as a formal arrangement of positions into patterns of working relationships depicting the lines of authority (Marriner, 1988).

Function

Function is defined as a type of activity being performed within a work unit.

Goals

Goals are defined as the purpose(s) for which the organization exists.

Complex Health Care Institution

A complex health care institution is an organization that provides a range of tertiary care medical services to consumers with multiple health care problems and which has as its mission teaching, as well as patient care.

Characteristics of the Nursing Department

In addition to structure, function and goals, as defined for the complex health care institution, the characteristics of the nursing department include the following:

Nurse-patient ratios which refer to the number of patients assigned to the nurse;

Staffing ratios that are based on the system of delivering nursing care such as primary or team nursing, and the mix of staff including registered nurses, licensed practical nurses, and nursing assistant groups;

A patient classification system which groups patients by acuity level, case-mix or average census; and

Job descriptions which define the functions and responsibilities of nursing staff including educational preparation.

Billing Procedures

Billing procedures are the accounting process utilized to charge for nursing services.

Revenue

Revenue is the income generated as a result of providing goods and services.

Expenses

Expenses refer to the cost of goods and services provided to meet organizational goals.

Revenue-Generating Department

A revenue-generating department is a department which provides services that are identifiable and billable to a consumer.

Nonrevenue-Generating Department

A nonrevenue-generating department is one that provides a service to support the services of a revenue-generating department (i.e., purchasing, advertising, and personnel).

CHAPTER III

METHODOLOGY

Research Design

A descriptive, case study design was used to describe specific aspects of two complex health care institutions that have charging systems for nursing care. Charging systems for nursing care do not exist as a routine financial system in all hospitals because of the historical nature of the development of a viable nursing profession. Thus, the use of the case study design was appropriate. Articles identified in the literature address mechanisms, such as the patient classification system, for accumulating data to develop charges for nursing care. The literature does not, however, present information which would identify a characteristic organizational structure and functions that might impact the implementation or continuance of a charging system for nursing care.

The descriptive study as a qualitative approach is appropriate when the investigator seeks to observe, analyze, and describe what exists in a noncontrolled environment which has not been previously defined. Descriptive studies are what Diers (1979) calls factor-

searching studies that generate qualitative data and utilize methods for "finding ways to categorize, classify or conceptualize situations" (p. 100). These studies are used to gather data about a particular phenomena when no data are available. The purpose of descriptive studies is to collect data so as to understand a situation, rather than to explain the dynamics of the entity or to test hypotheses about it.

The case study design was employed because it allowed for an in-depth study of organizational characteristics in two formalized institutions. The units of analysis are the two health care institutions.

The case study method of research is defined as any relatively detailed description and analysis of an individual, event, institution, or other social unit (Polit & Hungler, 1987). Stone (1978) describes the strategy for the case study approach: (a) the researcher intensely examines a unit (person, group, or organization); (b) data are often collected by multiple means; (c) no attempt is made to apply experimental or statistical controls; (d) phenomena are studied in natural settings; and (e) the approach is utilized more for the generation of hypotheses than the testing of hypotheses.

The purpose of case study research is to obtain a large amount of data from an in-depth investigation of a particular social entity. Guba and Lincoln (1981)

identify four classes of purposes: (a) to record facts or events chronologically; (b) to characterize situations and their relationships to one another; (c) to teach for the provision of a new knowledge base; and (d) to establish and determine the relevance of data for hypothesis and theory formation.

Triangulation is a combination of methodologies used to study the same phenomena. Denzin (1978) identified four basic types of triangulation: (a) Data triangulation is the use of a number of data sources in a study; (b) investigator triangulation involves the use of several different researchers or evaluations; (c) theory triangulation uses multiple research designs to study a data set; and (d) methodological triangulation uses multiple methods to study a problem or answer research questions.

For the results of a quantitative or qualitative study to be accepted with some degree of confidence, validity and reliability measures must be applied to the research design to control for extraneous variables. Two concepts, internal and external validity, identify the technical soundness of a research study. Threats to internal and external validity as described by Campbell and Stanley (1963) are typically controlled for in quantitative research so that the results of the studies are based upon the experimental variable(s) *manipulated*, and not the result of possible rival hypotheses.

Qualitative research, in order to maintain a level of confidence, supports the necessity for controlling threats to validity. According to Filstead (1970), validity is not the serious problem in qualitative research that it is in quantitative research, because qualitative methodologies do not proceed on a priori assumptions. Silverman (1973) suggests that the "subjective" and "interpersonal knowing" characteristic of qualitative methodologies have an innate validity which differs from the validity of the "objective" knowing characteristic of quantitative methodologies.

Guba and Lincoln (1981) and Denzin (1970) discuss the eight threats to internal validity outlined by Campbell and Stanley (1963) as they relate to qualitative research methodology. They suggest that some of the threats do not apply to naturalistic inquiry. Specifically, history is controlled by accounting for any incidents through continuous observation and acceptance of any historical impact as part of the data collection. Statistical regression and testing are unique to the quantitative research methodology.

With regard to subject bias, Denzin (1970) suggests that baseline interviews and day-to-day field notes provide the main measure

> ...concerning nonhomogeneous characteristics of subjects, while standard biographical questions that include educational and occupational histories, religious preference, and so forth,

> can be asked to attain a measure of the degree of subject bias in the sample (p. 203).

Experimental mortality is addressed by recommending the use of field notes, interviews and documents to describe the rate and nature of subject loss.

Guba and Lincoln (1981) indicate that instrumentation constitutes a major threat to internal validity in qualitative research, in that the investigator is usually the "instrument." Reactive effects and observer changes may lead to a loss of objectivity because of fatigue, differences in training, skill, and experience, as well as changes that may occur over time in the relationship of the observer and the subjects. Denzin (1970) suggests that these sources of bias may be reduced by recording the observer's perception of reactive effects and by examining field notations introspectively to determine subjective observer changes. Concerning maturational factors, Denzin proposed that baseline interviews with subjects provides a standard for measuring the amounts of changes in them along with day-to-day observations and recorded notes. The final threat to internal validity is selection-maturation interaction that can be easily overcome by frequent and regular interactions that are recorded over an extended period of time. Guba and Lincoln indicate that internal validity for the qualitative researcher can be attained through multiple qualitative methods such as extended contacts, observations, interviews, and un-

obtrusive measures.

The threats to external validity for the qualitative approach primarily revolve around population-sample differences and artificial research arrangements. Pretest influence and multiple treatment interference are threats more closely aligned with the quantitative research design.

The basis for doing qualitative research is to study phenomena within their natural setting without any manipulation of the setting. Guba and Lincoln (1981) indicate that generalization from the sample studied to the population is not necessarily the expectation of qualitative research. Rather, they suggest that inferences can be made, but only within the context of the population to which the generalization is being applied. Cronbach (1975) suggests that results of qualitative research should be viewed as working hypotheses to be further studied within the framework of other settings. The intent of artificial research arrangements is to control for extraneous variables, which in turn, limits the ability to generalize except to other similarly-controlled situations. Because qualitative research is accomplished in a natural setting without a priori controls, it can be argued that this threat does not exist; consequently, generalizability is greater for the naturalistic investigator than the scientific researcher.

Reliability is the degree of consistency with which an instrument measures the attribute it is supposed to be measuring (Polit & Hungler, 1987). Guba and Lincoln (1981) indicate that if internal validity of the qualitative design is accomplished, then reliability is also established. Weick (1968) described three types of reliability that may be addressed in qualitative methodology. These include: (a) observer agreement (different observers at the same time or intersubjectivity); (b) stability (the same observer at different times); and (c) replicability (different observers at different times). The ideal approach to reliability in qualitative methods, according to Weick, is a triangulation of several comparisons using all of these measures.

Measures taken to provide for scientific rigor when conducting qualitative research are considered controlling for extraneous variables, as outlined by Campbell and Stanley (1963). Lincoln and Guba (1985) and Sandelowski (1986), in discussing reliability and validity issues surrounding qualitative research, suggest that the qualitative method fails to provide for criteria that set forth rules for objectively achieving reliability and validity. Furthermore, they emphasize that qualitative research focuses upon the results as being more meaningful than control of the process.

Criteria for judging qualitative research were

developed by Sandelowski (1986). They are:

1. Credibility or truth value is the degree to which the investigator presents data that reflect the participant's experiences which can be clearly understood and repeated by other people. This concept replaces internal validity as understood in the quantitative sense.

2. Applicability or fittingness identifies the degree to which findings can "fit" into other contexts outside the study situation. In other words, the investigator must describe the research phenomena (e.g., setting, sample, and design) clearly enough that subsequent researchers can replicate the study. The concept of applicability replaces generalizability or external validity measures.

3. Consistency or dependability relates to the reliability inherent in the testing procedures. The findings should be consistent when a study is replicated in different contexts. Guba and Lincoln (1981) and Sandelowski (1986) present reliability and validity measures that are "umbrella" concepts that build upon the threats to validity and reliability as described by Campbell and Stanley (1963).

The research approach for this study is the use of data triangulation because data were obtained from a variety of sources and the data were both quantitative and qualitative. Qualitative data were gathered by semistruc-

tured interviews. Quantitative data were accumulated from written materials that include the budget for the nursing department; monthly financial statements that show the expenditures and revenues earned by the nursing department; the nursing service philosophy; the organizational chart; and policies and procedures that guide the activities of the staff of the nursing department. Van de Ven and Ferry (1980) indicate that documents and records can be very useful in measuring objective properties of organizations. Patton (1980) suggests that quantitative data in the form of written documents contribute to the verification and validation of qualitative analysis.

The financial statement provided the investigator data relating to the accounting system of the organization and how the system charges for nursing care; the nursing service philosophy identified the objectives of the department, as well as the nursing systems utilized for providing patient care. The organizational chart identified the authority structure and the span of control of the supervisory personnel; and policies and procedures indicated the amount of standardization that exists between the nursing units of the department, as well as the degree of decentralization of authority and responsibility that exists with the nursing staff at the unit level.

Advantages and Disadvantages of the Design

Guba and Lincoln (1981) identify the advantages of the case study design. They indicate that (a) the case study provides sufficient data for other people, besides the investigator, to be able to analyze the data within the context of their own framework; (b) theoretical constructs evolve from the analysis of the data, rather than from preconceived hypotheses; (c) data are collected in the natural setting without any manipulation of variables; and (d) presentation of the case study is accomplished by providing the reader with a functional text, which assumes that the reader can achieve understanding based upon experience, rather than being provided with theories, laws, or propositions. The disadvantages of the case study approach include: (a) results may be biased because of nonsystematic collection and interpretation of data; (b) case studies are not representative; therefore, they are not generalizable; and (c) political and ethical sensitivity exist because it is difficult to maintain anonymity.

Setting and Sample

Two complex health care institutions that have a charging system for nursing care were the settings for the study. The first institution (henceforth referred to as Hospital 1) is an acute, health care teaching institution

located on a privately-owned university campus in the western part of the United States. The hospital has a capacity for 638 patients and provides tertiary care spanning all patient care services. The nursing department has approximately 1200 registered nurses utilizing the primary care nursing modalities. The department has about 75 licensed practical nurses and nursing assistants.

The second institution (henceforth referred to as Hospital 2), located in the midwest, is a community-based hospital with teaching ties to a major midwestern university. The hospital has a capacity for 455 patients and provides tertiary care. In addition to general medical-surgical services, the hospital is the designated regional burn center and provides the primary emergency services for the community. The nursing department includes 450 registered nurses, 12 licensed practical nurses, and approximately 100 nursing assistants. Primary and total patient care nursing modalities are utilized.

Consent to conduct the study was requested from and approved by the University of Utah Health Sciences Institutional Review Board. The study was conducted in accordance with criteria for ethical considerations established by the Institutional Review Board. These considerations support the fact that research subjects have rights that include the right of consent, privacy and honesty. Arminger (1977) identified the generally-

accepted elements of informed consent which are: (a) the subject must understand the nature and purpose of the study and the potential risks involved; (b) the subject must freely agree to participate in the study without any coercion; (c) the researcher must explain the potential benefits of the study; (d) confidentiality and anonymity of the subjects must be assured; and (e) the subject must be allowed to withdraw at any time.

The Directors of Nursing Services of the two institutions were contacted by telephone and gave verbal permission to conduct the study within each institution. A letter was subsequently sent requesting written validation that permission had been obtained from the Director of Nursing Services to conduct the study (Appendix A). A letter detailing the study and requesting consent was signed by each of the interviewees at the time of the interview (Appendix B).

The investigator requested that the Director of Nursing Service select the interview candidates utilizing criteria established by the investigator. The head nurse participants were the only group that required a selection because the basic criteria called for a head nurse representative from the medical and surgical services. In both institutions, the medical and surgical services occupied more than one nursing unit. In this instance, the participant chosen was required to have been a head

nurse at the time that the charging system for nursing care was established.

Arrangements were made through the directors' offices to arrange for interviews and to review the other data sources. The interviews were tape recorded and took approximately 1 hour. At this time, each participant completed the demographic data form (Appendix C). During the actual interviews, the investigator followed the interview schedules (Appendix D); however, if other topics or information not on the interview schedule arose, this information was included as part of the interview data.

Most participants were very helpful and provided the investigator a large amount of data. The financial officers seemed to be less inclined to speak freely, although they were cooperative in answering the questions specifically. The interview tapes were transcribed by the investigator.

A total of 13 interviews were conducted at each institution. These included interviews with the Director of Nursing Services and the Associate/Assistant Directors of Nursing Services who have line responsibility for divisions of the nursing department. The divisions include the medical, surgical, obstetrical and psychiatric services. To provide for collection of data at the functional level, 4 head nurses representing the medical, surgical, obstetrical, and psychiatric services were also

interviewed. Interviews were conducted with the hospital administrator and associate/assistant administrators, as well as the financial officer and the assistant financial officer of each institution (Table 1).

Data Collection

Demographic Data

The demographic data describing the interviewees (Appendix C presents the data collection instrument) include the following information: (a) for the nursing administrators, the data sought were basic nursing education, highest degree in nursing or other discipline, length of practice in the profession and in the institution, present position, and age; and (b) the hospital administrators and financial officers provided information about their educational background, length of practice in the profession and institution, and their age. This information is presented in Tables 2 and 3.

Although the demographic data reveal that the participants in both hospitals have a variety of educational backgrounds, their responses to the interview questions were uniform. The length of time the participants have been employed in Hospital 1 ranged from 3 to 25 years with the mean years ranging from 10.5 to 12.2 years. The length of employment of the participants in Hospital 2 ranged from 3 to 16 years with the mean years ranging from 7 to 10.7 years. The length of time of

Table 1

Interviewees

Title	Hospital 1	Hospital 2
Director of Nursing (Associate/Assistant)	5	4
Head Nurses	4	4
Administrator (Associate/Assistant)	2	3
Finance Officer (Assistant)	2	2
Totals	13	13

Table 2

Demographic Data: Hospital 1

	Director Nursing Services	Head Nurse	Hospital Administrator	Finance Officer
Basic Nursing Education[a]	2 BSN 2 DIP 1 AD	1 BSN 2 DIP 1 AD		
Highest Degree	1 PhD 3 MSN	1 MS 1 BS	1 JD 1 MHA	2 MBA
Mean Years in Profession	22.3	11.5	11.5	16.5
Median Years in Profession	27.0	18.5	11.5	16.5
Mean Years in Institution	11.2	12.2	12.0	10.5
Median Years in Institution	8.0	17.0	12.0	10.5
Age (Mean)	44.2	37.5	47.5	42.5
Age (Median)	46.0	39.0	47.5	42.5

Note. [a] BSN refers to Bachelor of Nursing Science, DIP refers to diploma preparation and AD refers to Associate Degree.

Table 3

Demographic Data: Hospital 2

	Director Nursing Services	Head Nurse	Hospital Administrator	Finance Officer
Basic Nursing Education[a]	1 BSN 2 DIP 1 AD	3 DIP 1 AD		
Highest Degree	1 MN 1 MPH		1 PhD 1 MS 1 MA	2 BA
Mean Years in Profession	16.0	14.0	14.0	14.0
Median Years in Profession	19.0	15.0	19.0	14.0
Mean Years at Institution	9.2	10.7	8.0	7.0
Median Years at Institution	9.5	15.0	5.0	7.0
Age (Mean)	38.0	36.3	41.2	45.0
Age (Median)	38.0	37.0	48.0	45.0

Note. [a]BSN refers to Bachelor of Nursing Science, DIP refers to diploma preparation and AD refers to Associate Degree.

participants in both hospitals seems to indicate that their values and beliefs are probably quite homogeneous in relation to the missions, objectives, and values of the respective institutions. This was evident in the findings of the study in that all participants in both hospitals responded to the interview questions with answers that were similar in content.

Interview Schedule

Interview schedules were developed by the investigator to use when interviewing the directors of nursing services, head nurses, hospital administrators and the financial officers of the two institutions (Appendix D). The interview questions concerned general concepts relating to the organizational infrastructure of the two institutions, and included authority structure, span of control, decision making, financial systems, and leadership styles. Information specific to the nursing departmental organization included authority structure, span of control, departmental decision-making, patient care systems, staffing methodology, inservice education, reward systems, and leadership styles. Practices specific to the charging system for nursing care included the use of standards of care and patient classification system, and the values and difficulties of charging for nursing care.

Although each set of questions was specifically

developed for each group interviewed, there were several questions that each interviewee from the four groups was requested to answer. These questions included opinions related to the goals of the institutions, size, and complexity, as well as the effect of formal rules, and supervisory decision making. Another group of questions related to the influence of the nursing department, the ethics, problems, and values of the system of charging for nursing care.

The questions for the directors of nursing services provided information about the broad accountability and responsibilities of the administrative staff of the nursing department, policies for nursing clinical practice, and policies for employee personnel practices, budgetary systems and the charging for nursing care system. The questions for the head nurses asked for information related to decision making in the nursing department, and a number of operational activities such as staffing methods, budgetary control, control of inservice programs and the head nurses' beliefs regarding the value of charging for nursing care. The questions for administrators elicited responses that were broader in scope, such as the effect of competition of health care agencies in the community, and the value of the services provided by the particular institutions studied. The questions for financial officers provided for data

describing the financial system of the institution and fiscal accounting practices that encompass such activities as budgeting, and the system for charging for nursing care.

A pilot study was conducted to assess the adequacy of the questions selected for the interviews. According to Polit and Hungler (1987), a pilot study is a trial run of the actual study. Its purpose is to try out procedures and instruments to determine if there are any problems with the research methodology. The pilot study was conducted at a complex health care teaching institution. Participants for the pilot study occupied the same positions as individuals who comprised the sample in the actual study. These participants included the director of nursing services, 1 a head nurse, the hospital administrator, and the chief financial officer. The assistant director of nursing services and head nurse were chosen randomly after discussion with the director of nursing services. Each participant was contacted to obtain permission to be included in the pilot study. Appointments were made to interview each participant independently.

The investigator tape recorded, as well as took notes, during the interview sessions. The participants were cautioned not to communicate with each other about the study until all the interviews were accomplished. The

same techniques were utilized throughout the main research project.

Individuals interviewed during the pilot study concurred that the questions were readily understandable and with some minor changes (e.g., combining or deleting some questions), the questions covered the information sought by the investigator regarding the organizational characteristic of a complex health care institution and its nursing department, in relation to charging for nursing care.

Written Documents

Written documents were utilized to identify objective properties of the two organizations studied. The use of triangulation of data serves to help in verification and validation of the qualitative data (Lincoln & Guba, 1985). The documents included the organizational charts that described the structure and function of the institutions, the division of labor, and chain of command; operational and personnel policies; and the financial systems of both institutions.

Research questions one and two asked what are the characteristics of the organization and nursing department in which charging for nursing care is accomplished. The quantitative information from the written documents provided data to substantiate the data about the organizational characteristics that were collected qualitatively.

Management of Qualitative Data

The data were managed and analyzed using content analysis. Content analysis involves a systematic method for dealing with a large amount of qualitative data. Patton (1980) defines content analysis as a process whereby raw data are simplified and transformed into meaningful relationships. Miles and Huberman (1984) indicate that content analysis consists of three concurrent processes. They are: (a) data reduction, the process of selecting, simplifying, abstracting and transforming raw data; (b) data display, organized information that permits the drawing of conclusions and action to be taken; and (c) conclusion drawing and verification, a continuous process of making judgments about the meaning of the data and verifying these judgments simultaneously. The process of content analysis, as defined by Patton (1980), as well as Miles and Huberman (1984), is similar. Their theories complement one another.

Content analysis actually begins at the time the study is conceived. The statement of the problem, through the literature review and the subsequent development of the research questions, followed by the method of data collection all contribute to the beginning of the process of analysis (Miles & Huberman, 1984). At the time of data collection, the process of coding begins. In this study,

raw data were collected during the interviews. Upon completion of the interview, the investigator summarized and recorded each interview as to the climate and the general attitude of the participants. Minor changes in the order of the questions or question combinations, to facilitate a more productive interview, were made for each interview. This process continued until all the interviews were completed. According to Patton (1980), once the data are collected, the process of coding occurs in which data are placed in related categories based upon content analysis. The interview schedule and the field notes provided the categories for coding. Once the interview tapes were transcribed by the investigator, the process of coding and developing categories began. The first interview provided a beginning list of categories which were recorded in a code book. For each interview, themes were recorded in categories that were already in the code book, and new categories that emerged were added to the code book. Each interview was cross-analyzed with the previous interviews until a complement of categories was developed and the list of categories was exhausted. The purpose of coding categories is to develop distinct major subject relationships (Guba, 1978).

The final step required relating the categories of responses to each research question. Totaling the responses and developing a written statement of each

category completed the data management process. Content analysis does not really follow an orderly process. According to Miles and Huberman (1984), the researcher moves back and forth between data collection, data reduction, data display, and conclusion drawing.

CHAPTER IV

ANALYSIS OF DATA

The data were analyzed in relation to each research question. The research questions are:

1. What are the organizational characteristics of the two complex health care institutions in which nursing care is charged for discretely?
2. What are the characteristics of the nursing department in the two complex health care institutions where the nursing budget is separated from the general hospital budget?
3. How are charges for nursing care identified separately so as to reflect not only nursing care expenses, but also revenue generated by the nursing department?

The format for the analysis of data is as follows. The questions posed to the directors of nursing services and their responses are analyzed in relation to the three research questions, followed by the questions addressed by and the responses from the head nurses, the administrators and the finance officers. Those interview questions that are addressed by all interviewees, or more than one group of interviewees (but not all interviewees), will be

addressed under intergroup responses. In addition, the questions in each of the four interviewee groups that can be answered from written documents are included in the narrative for the two institutions studied.

A summary of responses for each interview question is offered first. Secondly, the researcher studied the responses of each interviewee, and subsequently compiled a composite statement that reflects the responses. The composite statements are offered after the summaries. With some questions, one composite statement reflects the responses of the interviewees from both hospitals. With other questions, the interviewee's responses from the two hospitals were sufficiently different and, thus, more than one composite statement is offered to reflect the responses of the participants at each hospital. The composite statements utilize words and phrases as contained in the original responses.

Interview Questions for Directors of Nursing Service

Research Question One

This question focuses on the organizational structure, and interview questions (Appendix D) 7 and 8 relate to this research question. The purpose of these interview questions was to identify the organizational characteristics present in the two hospitals studied. These interview questions relate to nursing administrators and

staff nurses' involvement in hospitalwide decision making.

Hospitalwide decision making by nursing administrators and staff nurses was addressed by the interviewees. In both organizations, the assistant directors indicated that they have very little direct involvement in hospitalwide decision making, because they are not part of the top administration. However, they have a great deal of input through the director of nursing who is active in hospitalwide committees and other decision-making vehicles. Hospitalwide decision-making opportunities by staff nurses is minimal according to the interviewees in both hospitals. The nurses indicate that the staff nurses have limited knowledge about hospitalwide problems.

Composite statement (relates to the organizational characteristics of the institutions and includes perceptions about hospitalwide decision making by nursing administrators and staff nurses): The hospital's organizational structure delineates the division of labor and the line of authority; thus, there are specific roles and functions assigned to all of the employee groups. Hospitalwide decision making is assigned to top management because these are the people who have the overall responsibility for the functioning of the organization in relation to its goals. However, concerns that staff nurses have regarding interdepartmental problems or

decisions made administratively are taken seriously. Both hospital nursing departments have nursing councils with staff nurses representing the different nursing units. The council's responsibilities are to present nursing problems and solutions to their respective nursing administrations.

Research Question Two

This question focuses on the organizational structure of the nursing department. Interview questions 5, 6, 12, and 15 relate to this research question, and identify the organizational characteristics in the nursing department where the nursing budget is separate from the general hospital budget. This series of interview questions relates to the authority and responsibility of the nursing managers, communication mechanisms, and support groups for the charging system.

The authority and responsibility of the divisional directors of nursing services and the head nurses are explained in the following way. The divisional directors in both hospitals indicate they have overall responsibility for their division, and that they are in control of the division's budget. The head nurses are responsible for the day-to-day operation of each nursing unit. The interviewees from hospital 1 indicated that there is confusion between the roles of assistant and associate directors (Table 4).

Table 4

Authority and Responsibility of Managers

	Hospital 1		Hospital 2	
	DNS[a]	Head Nurse	DNS[a]	Head Nurse
Control of Budget	X		X	
Hiring/Firing Employees		X	X	
Staffing/ Payroll		X		X
Counseling/ Evaluations		X		X

Note. [a]Directors of nursing service.

Regarding communication systems, the nursing manager's group in both hospitals indicates that they use both written and verbal methods of communication. Memos, policies/procedures, annual reports, and minutes from committees comprise written communication. Verbal methods of communication include telephone calls, one-to-one meetings, dialogue during committee meetings, and "hallway conversations."

Group support for the charging system is commented on by the interviewees. At hospital 1, the interviewees indicate that the physicians did not support the system and that the finance officers required a lot of convincing. The physicians needed explanations about the impact on their patients, and whether collecting the necessary data would take the nurse away from the bedside. The finance officers needed to work through any financial problems that existed before the system was implemented. Three out of 4 interviewees at hospital 2 indicated that the physicians opposed the charging system for nursing care. They also indicated that the finance officers were very supportive (Table 5).

Composite statement. The composite statement provides further information regarding the beliefs of the interviewees. These statements included the following comments. Information about authority and responsibility of the nurse managers indicates that in Hospital I the

Table 5

Charging for Nursing Services as Reported by the Nurses

	Hospital 1		Hospital 2	
	Support	Do not Support	Support	Do not Support
Physicians		5		4
Finance		5	4	

organization is "very bureaucratic" and has too many layers of administrators compared with hospital 2 which has fewer layers of administrators and uses a more informal decision-making process. The degree of support for the charging system for nursing care that could be expected elicited some concern that patients may have difficulty relating the cost to the nursing care they receive. For the most part, physicians were not supportive of the charging system and the finance officers in hospital 1 were dubious about the potential success of the system, while the finance officers at hospital 2 were very supportive.

Research Question Three

The focus of this question is on the system of charging for nursing care. Interview questions 19 and 22 relate to this research question and identify difficulties encountered in setting up the charging system, as well as provide advice to an institution considering development of a charging system for nursing services.

The difficulties encountered in setting up the charging system were minimal. The 5 nurses at Hospital 1 indicate the biggest problem was the need to convince the finance officers that the nursing department had to have an accounting system for collecting the data to produce individual bills for the patients. There were no difficulties with the nurses on the patient care units,

since they were already using the patient classification system to identify patient needs. The nurses at hospital 2 indicate that there were no difficulties, since the nurses were already collecting data from the patient classification system, and the finance officers were very supportive in providing the appropriate accounting system.

Advice to an institution considering developing a charging system for nursing care is reflected in the following comments. The interviewees at both hospitals indicate that the institution must have a reliable and reasonably valid patient classification system. At hospital 1, 2 out of 5 interviewees indicate that the nursing department must involve physicians and the finance officers in early decision making. In this way, the physicians can assist in providing explanations to their patients, if necessary, and the finance officers can develop an appropriate accounting system. Three of the 5 interviewees suggest that a stable staff comprised primarily of registered nurses is necessary.

At hospital 2, 1 of the interviewees believes a computer is essential. All 4 interviewees at the hospital indicate that a predominately registered nurse staff that is relatively stable is necessary, and that hospital administrative and financial support is essential.

Composite statement. The problems encountered with the charging system for nursing care enforce the need for

good communication, strong institutional support from finance officers and other key persons in administration, and a valid patient classification system must be in place. For institutions contemplating the development of a charging system for nursing care, various systems such as the patient classification system need to be in place and functional. More importantly, however, the value of the charging system must be clearly articulated to the nurses and to other disciplines within the institution so that there is understanding, support and acceptance.

Head Nurse Group Interview Questions

Research Question One

This question focuses upon the hospital's organizational structure. Interview questions 8 and 18 (Appendix C) relate to this research question and ask for the role of the head nurse in hospital decision making; and the opinions of the head nurses regarding factors that contribute to the decisions made at the institutional level.

Institutional decision making lies with the administrators who have a wider span of control. All of the head nurse interviewees relate that they have input through their respective supervisors. They indicate that their role does not include the direct responsibility for hospitalwide decision making. The interviewees from

hospital 1 indicate that they are able to make recommendations to administration when they serve on nursing committees.

All interviewees stated that decisions are made with the economic and financial health care picture playing a major part, as it affects the operation of today's health care institutions.

Composite statement. Informal influence occurs through input in policies/procedures and through networking activities with other departments. Factors that affect decision making at the executive level other than economics are program changes and situations that might affect the public's view of the hospital.

Research Question Two

The focus of this question is on the organizational structure of the nursing department. Interview questions 2, 3, 4, 5, 15, 16, 17, and 20 (Appendix D) relate to this research question and speak to the authority of the head nurses to make decisions within the department, their control of standards of practice, and the budget. The kind of decision-making power the interviewees have within the department is discussed. In each organization, the interviewees feel that they have considerable freedom in the daily operation of their unit. This involves patient care situations and nursing staff activities such as scheduling, evaluations, and other routine staffing needs.

All of the interviewees indicate that they have input in departmental decision-making through their immediate supervisor. As to the hospital, each of the interviewees believes that the director of nursing shares with the other administrators in the hospital decision making.

The authority for decision making by the head nurses and that of their immediate supervisors seems equally divided. The interviewees from both hospitals indicate that they seek assistance only for unusual situations, such as major personnel issues, problems with physicians, or to validate ideas they may have. All of the interviewees indicate that they have the authority to make changes as long as the change does not impact the institutional policies. In that case, they have to get further approvals.

Accountability for financial activities on the nursing unit is primarily the responsibility of the regional supervisor with input from the head nurses in relation to the budget. All interviewees indicate that they are required to explain variances in the budget to their supervisors; also, that any changes that are financially oriented must have further approval. Departmental decision making involving long-term planning is accomplished by the director of nursing service, along with associate/assistant directors of nursing service with little or no input from the head nurses.

Composite statement. The administrative staffs of both institutions have a well-ordered system for decision making. Departmental decisions are made by the top administrators and routine unit decisions made by the first level managers. Neither institution is fond of having numerous standards for clinical practice, although they do have policies and procedures as required by the accrediting agencies.

Research Question Three

This question focuses on the system of charging for nursing care. Interview question 22 relates to this research question in terms of the interviewee's part played in developing the charging system for nursing care. All of the interviewees indicated that they were not involved in the decision to charge. Their majority responsibility is to teach staff about the system and collect data from the patient classification system from which charges are generated.

Composite statement. This situation is a good example of the process of decision making in the institutions. The decision to charge for nursing care has institutional impact; therefore, the decision has to be made by those people charged with the responsibility for managing the department efficiently and safely.

Administrator Group Interview Questions

The interview questions for this group (Appendix D) were aimed at providing data for research questions one and three.

Research Question One

This question concerns organizational structure in the two organizations studied. Interview questions 3 and 8 through 14 (Appendix D) relate to this question and identify the factors which affect the number of administrators in an institution, factors that affect decision making at the department head level, methods of communication, issues that impact the competition with health care agencies in the community, and beliefs about equating the need for education with the role of administrator.

Management abilities are an important component where deciding on numbers according to the three interviews from hospital 2. Respondents also stressed span of control and number of services and programs as a factor. Two interviewees from hospital 1 stressed the functional aspects of the position, especially the number of beds, staff to supervise, budget constraints, services, and programs.

The total group of interviewees believes that decision making should be delegated to the lowest level of management and that final decision making should be made

by the person responsible for the project or closest to the problem. The administrator group indicates that the method of communication is accomplished by regular meetings for all department heads, that is, a formal hospital meeting in which major hospital announcements are made and each administrator has meetings with managers regularly. They also indicate there are frequent, informal, daily interaction and memos as needed.

Issues of competition with the health care agencies in the community were answered by the administrators who indicated that their respective institutions compete on the basis of quality and service. They believe that patients should come to their institution because of technical expertise in both staff and equipment. The administrators at hospital 2 identified their main strength as having a caring staff. All interviewees responded to the question of education in relation to the role of administrator by indicating that education is necessary but not sufficient. It is not a substitute for intelligence, experience, competence, and personal attributes.

Composite statement. The administrators from hospital 2 believe that the abilities of potential administrators are more important than the length of supervisory experience. This was also identified by the interviewees in hospital 1.

Decision making at the department head level must be a delicate balance between delegating autonomy and authority, and with clear expectations and consistent communication between supervisor and subordinate. The process of communication is heavily based on the "need to know philosophy."

Regarding competition and the consumer's interest in a particular hospital, hospital 1 emphasizes technical expertise and equipment, but the cost is the highest in the community, while hospital 2 focuses on the people who work there as the important ingredient in their ability to compete successfully. Competence and personal attributes are as important as education in the role of administrators. (Examples of great figures in history support this belief.)

Research Question Three

This question focuses on the system of charging for nursing care. Interview questions 16 and 17 (Appendix D) relate to this research question and are concerned with the reason for developing a charging system for nursing care. All the administrators indicate that the basic factors were economic: to increase revenue by variable billing and to show nursing as revenue producing. They also see the system as useful for justifying nurse staffing needs based on patient acuity.

Composite statement. The patient has a right to know

the cost of "labor" and overhead charges. For nursing, a charging system provides an incentive to be more marketable because the department can identify the services it provides and what these services cost.

Financial Officer Interview Questions

The interview questions 2 through 5, and 7 identify the basic financial beliefs and systems of the organization studied. They relate to research question 1 which focuses on organizational structure.

The final authority on fiscal matters is the respective board of each hospital. The financial officers indicate that the administrators of each hospital have been allocated, by the boards, a certain amount of money that they can use without board approval. For example, the administrator at hospital 2 can approve expenditures up to $15,000 without board approval.

The basic philosophy of the institution toward its financial operation and the specific financial systems is explained by the financial officers from both hospitals. They agree that the basic overriding goal is to make money for working capital. Neither hospital has a cost accounting system as commonly known; however, they all agree that they can cost out anything. The financial officers indicate that all services provided have charges that are accumulated, although they may not get paid. As

to decision making regarding the budget and long-range planning, they indicate that the department heads develop their own budgets, which are subsequently approved at a more senior level. Long-range planning is accomplished by the most senior members of top management.

Composite statement. Hospital 2 maintains a goal of 5% revenue gain at the bottom line, while hospital 1 does not try to earn "one penny" more than the full financial needs of the institution. An important economic concept that the organizations embrace is the belief that "there is no such thing as a free lunch" meaning that they do not provide any free care by design. As to decision making for financial situations, these decisions should be made at all management levels in the institutions, but with fairly tight controls by the financial officers.

Intergroup Responses to Identical Questions

The following interview questions were presented to interviewees in each of the four categories: directors of nursing, head nurses, administrators, and financial officers. Research question one identifies characteristics of the organizations studied. These characteristics encompass goals of the institutions, the impact of size and complexity on the institution, the effect of formal rules on administrative control, the degree of influence of the nursing department, and characteristic attributes

important in superiors and subordinates.

All 26 of the interviewees were asked questions relating to the goals of the organization (Table 6). The thirteen interviewees in hospital 1 agree that the primary goal of the organization is patient care. At hospital 2, 8 interviewees support patient care as the primary goal. Five interviewees believe the goal is to prepare for changes in the health care system through competition and cost efficiency, which they identify as "survival."

The directors of nursing services and administrators were questioned regarding the impact of **size** on the institution. The 9 directors of nursing and 5 administrators agree that a substantial change in size would affect the administrative structure in terms of numbers of people, the number of rules and regulations for control, and methods of communicating.

The question about the definition of "complexity" of an institution was posed to the 9 directors of nursing services, the 5 administrators, and the 4 financial officers. The directors of nursing service indicate a governance structure that has a number of decision-making bodies, which create complexity in their respective institutions. At hospital 1, the 2 administrators identify service and education factors, competition between private physicians in the community, and the governance structure with many decision-making bodies.

Table 6

Goals of the Organization

	Hospital 1		Hospital 2	
	Patient Care	Survival	Patient Care	Survival
Directors of Nursing Service	5	--	2	2
Head Nurses	4	--	4	--
Administrators	2	--	--	3
Financial Officers	2	--	2	--

Likewise, the financial officers add that the combination of teaching and nonteaching patients and nonquantifiable goals provide for complexity of the organization. At hospital 2, the 3 administrators define complexity as numbers of programs, services, medical staff, and the size of budget. The 2 finance officers see the governance structure as a complexity factor.

The question of how formal rules impact administrative control was asked of the 9 directors of nursing, 8 head nurses, and 5 administrators. The directors and head nurses believe the formal rules lead to more control and a more centralized decision-making organization. The 2 administrators from hospital 1 believe there must be some structure; however, they expect professionals to use professional judgment. The 3 interviewees at hospital 2 believe formal rules regulate to expectations and not necessarily control. That is, the formal rules are expected to provide for standards of practice as an expectation of behavior, rather than to control behavior unconditionally.

All interviewees were asked to comment on the degree of influence the nursing department has in the institution. The directors of nursing believe the department has a great deal of influence, and the head nurses indicate that the director of nursing is very influential in the institution. Both the administrators and the finance

officers indicate the nursing department is very influential.

The total group was asked to comment on the positive characteristics they would like to see in the people they work for and in the people who work for them. The following were the major responses of the total group: "fair, honest, smarter than me, provide for challenges, risk taker, provide guidelines (allow me to work freely within them)." The attributes ascribed to the employees who work for them were: "honest, trusting, work hard, motivated, want the job, and want to do well, and can accept criticism."

In summary, the governance structure that allows multigroup decision makers provides an environment that may very well harbor conflicts of interest. The influence of the nursing department may become so great that it threatens other departments and the consequences will have negative relationships, which may be detrimental to any constructive problem solving.

The characteristics of superiors and subordinates indicate that the management groups of both institutions are independent, hard working, and dedicated professionals who expect their employees to contribute equally as much with consummate energy, loyalty, and dedication.

Research question three focuses on the charging system for nursing care. Interview questions that

identify the value and problems associated with the charging system, as well as characteristics of organizations and ethical considerations of charging for nursing care relate to this research question.

The question about the value of the charging system for nursing care to nursing and the institution was asked of the total group. All 17 nursing interviewees believe the value of the charging system is its ability to provide a mechanism for identifying the market value of providing nursing services. The charging system provides for more power to negotiate the budget, and quantifies illness needs of patients. The interviewees indicate that the value to the institution is that it quantifies the real cost of nursing in relation to revenues the department earns.

The administrators of both institutions also believe that the greatest value is a tool for nursing to become a revenue center; and since the cost of the nursing department has always been included as part of the charge to the patients, the administrators see it as less valuable to the institution. The financial officers of both institutions see the value as a marketing device, in that consumers know that they are being charged only for care received.

Problems associated with the charging system for nursing care were discussed by the 9 directors of nursing

services and the financial officers. The 5 directors at hospital 1 state that explaining the charging system to patients and families is a problem, and the need to make certain that charges are authentic according to patient needs requires constant monitoring. The 4 interviewees from hospital 2 indicate that there are very few problems.

The finance officers state that the major problems or obstacles are that the third-party payers will not cooperate with the program. The payment systems are based on longstanding patterns and habits, in that the third-party payers are accustomed to certain methods of charging, as well as receiving certain kinds of information from the hospitals. The charging for nursing care system does not fit these habits and patterns; thus, the third-party payers refuse to change their computers for a new billing system.

The questions about giving advice to an institution that is considering developing a charging system for nursing care, and the organizational characteristics necessary in developing and maintaining a successful charging system for nursing care, are closely related; likewise, the responses are related. All interviewees indicate that there must be a valid and reliable patient classification system in place. The nursing department must have credibility, respect, and support from the hospital administrators and the financial officers. The

nursing department must be well organized with consistent leadership. Out of the 17 nursing interviewees, 11 believe that a predominately stable registered nurse staff is essential. The administrators of both institutions believe that nurses must really believe in the charging system. There must be commitment and diligence in monitoring the system after it is implemented. The system is expensive, and thus, there really needs to be hospital-wide support for terms of its value to the institution.

All financial officers concur with the need for a good patient classification system to be in place. The financial officers at hospital 1 displayed great reluctance in giving support, as they do not believe a multiplicity of charges is a good billing system nor is it warranted for the hospital.

The final question posed to all interviewees inquired about the ethical considerations surrounding charging for nursing care. All nurse interviewees believe that it is ethical to charge for services provided, and that the public has the right to know what services they are receiving. Whether the consumer can refuse care based upon the cost of this care had not arisen as an ethical issue, as yet. Historically, nursing was provided as a duty and in the spirit of selflessness and altruism. The idea of being entrepreneurial is a new way of thinking for the nurse. It is nurses' responsibility, however, to be

accountable for providing reliable and honest data regarding the needs of the patients and nursing care provided. The 2 administrators and the 2 financial officers at hospital 1 believe that nursing has become too financially oriented; that is, the altruistic caring characteristic of nursing in the past is gone and with it has gone the trust that nursing and nurses used to have.

The 3 administrators and the 2 financial officers at hospital 2 indicate that the public should pay for the nursing services provided, and that the hospital cannot afford to provide free nursing care services. They also believe that nurses have the responsibility and are accountable to provide superior care. Thus, nursing becomes a public entity. Therefore, nurses must be able to validate their services.

The value of charging for nursing care is seen as an acknowledgment of the professional contribution made by nursing to patient care, even though the belief exists that if the system were abolished it would make no difference to the nurses. The nurses did not feel that identification of the charges for nursing care and subsequent revenue generation provided them with any additional monies, benefits, status, or influence in decision making. The general belief, however, was that nurses must see themselves as entrepreneurs without losing the altruistic spirit for which nursing is known.

Administrators must change their thinking, and view the nursing department as a group of professionals providing a service that has economic value. Ethically, the only issues are the expectation that the nurses need to exhibit "mature behavior" and delineate the services provided to the patients, as well as to fully acknowledge that services provided are generally paid for in our "capitalistic," entrepreneurial society.

Additional Source Material

Data to supplement the qualitative interviews were obtained through written materials from each hospital and the nursing departments therein. These materials include documents that identify the organizational structures, the philosophies of the institutions and the financial systems. For the nursing departments, the documents identified the administrative structures and the functional units' philosophy, job descriptions, staffing methods, reward systems, patient classification systems, inservice educational programs, and the systems for charging for nursing care.

The questions for each of the four interview groups that can be answered from written documents are included in this narrative. They include the director of nursing services interview questions 4, 9, 10, 13, 14, and 15 (first two parts), 16, 17, 18, 25, 26, 27, and 28; head nurse interview questions 6, 7, 9, 10, 11, 12, 13, 14, 23,

and 25; and the financial officer interview questions 8 and 9. Further information regarding hospital 1 is presented followed by similar information about hospital 2.

Hospital 1

General Description

Hospital 1 is part of a private university. The hospital is governed by a board of trustees and is licensed for 638 beds. The patient population is a mix of teaching and private patients from the community. The medical staff is comprised of medical school faculty and private physicians who admit the private patients. The latter physicians do not have to be on the medical school faculty roster. House staff may or may not take care of these patients, depending upon the decision of the patient's private physician. The hospital is an acute care center with the following services: general medical-surgical; intensive care for all major medical services; pediatrics and neonatal; psychiatry; obstetrics including labor delivery; newborn nursery; renal dialysis; and clinical research. The hospital has an active ambulatory care facility and emergency services.

Organizational Structure

Hospital 1 is structured on the classical bureaucratic model and the administrative chain is based upon

the unity of command and division of labor principle. The other dominant force to which many people report either formally or informally is the medical chain of command. The work of the institution is performed through functional units (e.g., nursing, dietary, and radiology). The missions of patient care, teaching, and research are prioritized differently by different groups. Physicians prioritize teaching and research as primary and secondary goals, with patient care as the third goal, while nursing prioritizes patient care first with teaching and research as second and third goals.

Other bureaucratic criteria, such as rules and regulations, exist to guide clinical and personnel practices. Fiscally and historically, the hospital has been heavily "granted," thus, the financial system is less oriented to cost-effective management. However, with the decrease in federal funding and the advent of the prospective payment system, the institutional decision makers have placed budgetary limits on the hospital departments. The departments are broken down as cost centers with department heads responsible fiscally. All staff nurses belong to a union. The ratio of employees/bed is 7:0. This ratio includes interns and residents and excludes staff physicians.

Nursing Department

The nursing department has a traditional hierarchical administrative structure, but it is heavily layered with administrative staff. The chain of command from the first level manager to the head of the department is through two levels of administrators. The nursing staff has specific unit assignments. Departmental decision making is both centralized and decentralized (i.e., decisions that affect the whole department are made by the directors of nursing, while the routine functional decisions are made at the nursing unit level by appropriate nursing staff).

Each nursing unit is supervised by a clinical nurse coordinator (CNC) who has responsibility for the day-to-day operation of the unit. Staffing, scheduling, and routine patient and employee problems are handled by the CNC. Time schedules for the employees are centrally created with final approval by the CNC. The CNC group reports to the regional assistant directors of nursing service. The regional assistant directors report to the associate directors. The regional associate directors of nursing report to the director of the department (see Figures 2 and 3). The director of the department also supervises a few nonnursing departments, such as social service. The assistant directors of nursing services are responsible for the overall supervision of assigned regional units. They control the budget and resource

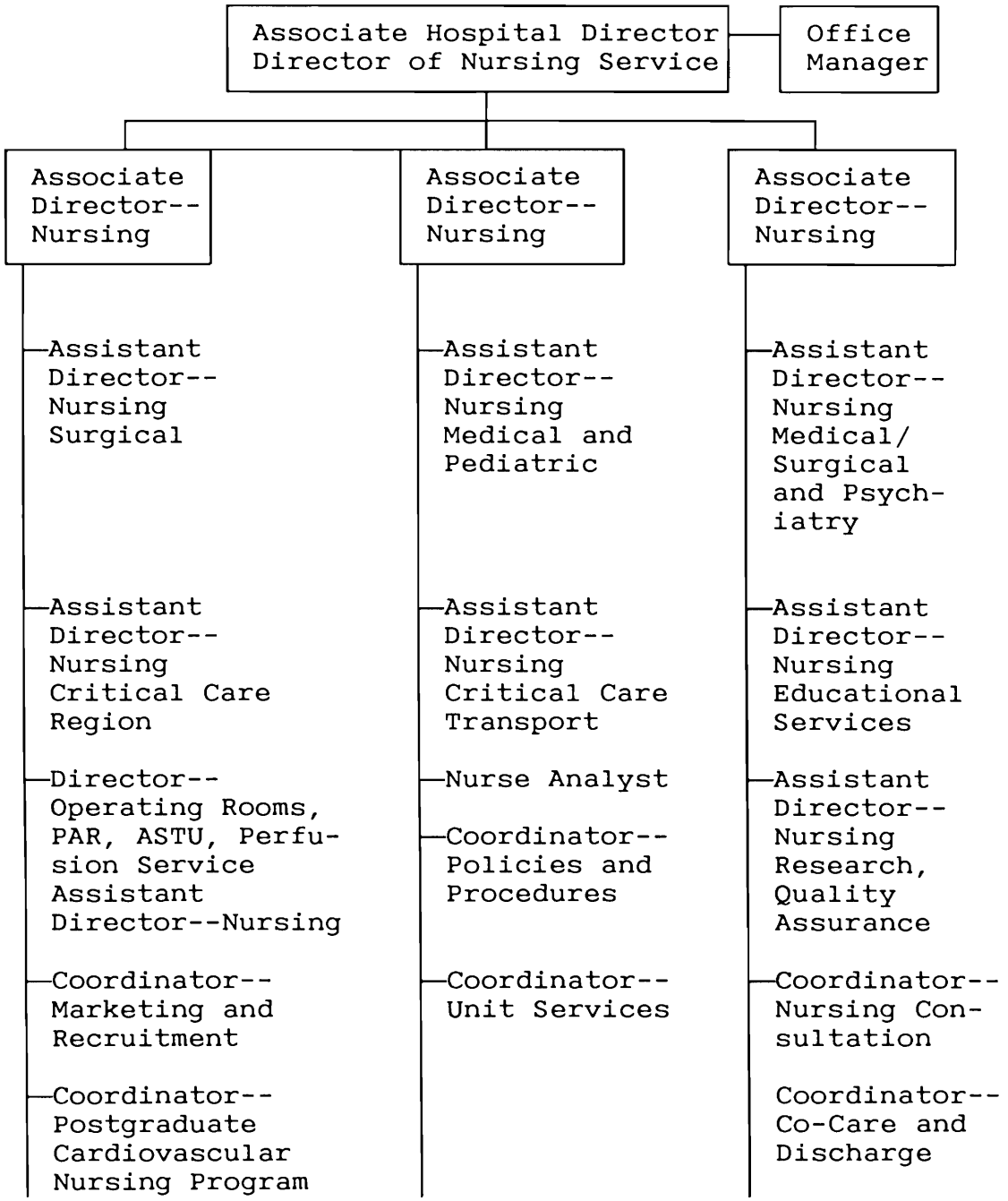

Figure 2. Hospital 1 nursing administration organization chart.

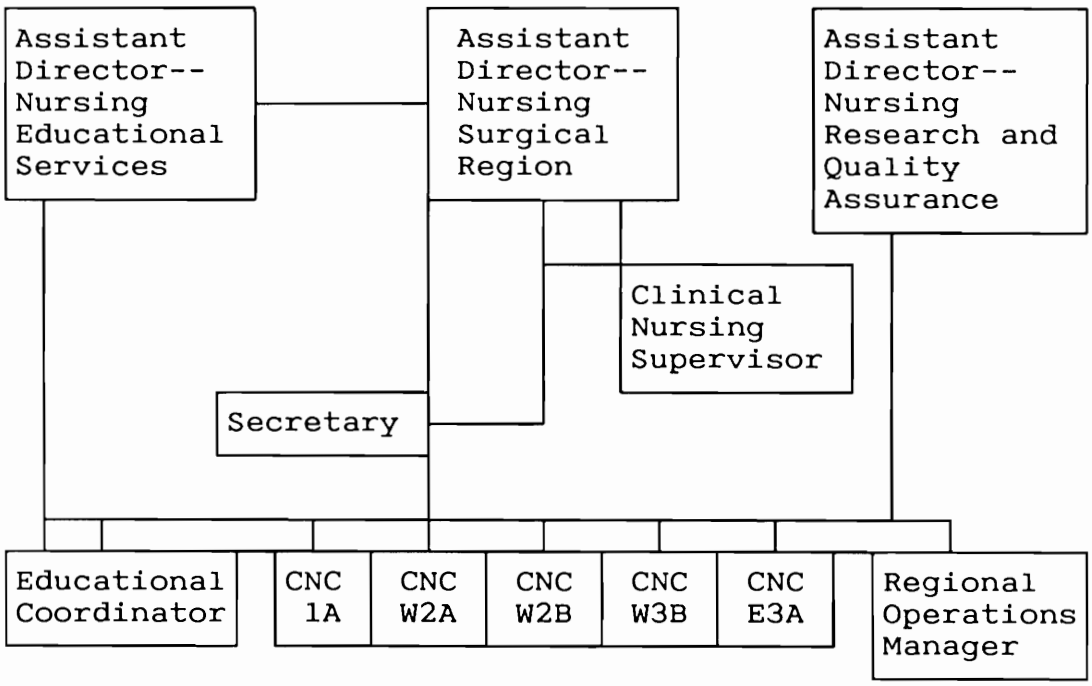

Figure 3. Hospital 1 surgical region organizational chart. CNC indicates clinical nurse coordinator.

allocations, and are available for problems that the CNC cannot resolve. The associate directors of nursing services are involved in major departmental planning and decision making.

The nursing department has policies and procedures that guide the staff. Nursing staff, primarily in management, represent nursing on nursing department committees, as well as on hospital-wide committees.

The staff who are registered nurses in the nursing department is unionized. Personnel practices such as time off, work schedules, tuition, educational practices, evaluations, payroll and so forth are negotiated, and are part of the union agreement. The professional reward system is met by a clinical ladder. Educational instructors assigned to the unit are a part of the clinical ladder concept; however, they report through the staff development department. Criteria for identifying teaching strengths are built into the clinical ladder program; thus, selected staff nurses with teaching abilities are able to become clinical instructors. The nursing administrators believe that it is appropriate to have these instructors report through the staff development department to insure coordinated inservice programs. The department also has a research division.

Charging System for Nursing Care

Each nursing unit is a separate cost center and receives a financial accounting of its expenditures monthly. The financial statement includes revenues and direct/indirect expenses, as well as variances from the budget.

The patient classification system (PCS) is utilized to identify staffing needs and is the basis for the collection of data to develop the charge for the patient bill. The PCS is comprised of nursing skills, which convert into hours of patient care by acuity level. Acuity is defined as amount of nursing care and **not** the clinical condition of the patient. Each patient is classified each shift by a registered nurse. Data are keyed by a technician into a computer in another part of the institution. The computer analysis provides the data needed to determine optimal staffing for the next shift. At the same time, the analysis collects information to provide for patient charges. The cost for nursing care is based upon the salary of the caregiver, benefits, and fixed, indirect expenses such as head nurse and clerical staff salaries. Those expenses associated with the centralized nursing administration, which provide supervision throughout the department, are included in the room rate as a general overhead expense.

Hospital 2

General Description

Hospital 2 is considered a quasipublic institution because it is partially funded by the county. Governance includes a country board of directors, a hospital commission, and a physician board. The hospital has 455 licensed beds for patient care. The beds accommodate the following nursing and medical services: general medical-surgical; intensive care beds for medical, surgical/trauma, coronary, burn, neurological, neonatal, and pediatrics, psychiatry; obstetrics including labor and delivery; and newborn nursery. The hospital also has ambulatory care and emergency services.

Organizational Structure

Study of this organization reveals a traditional and classical organizational structure. The reporting relationship among the employees is set up in a hierarchy, and the work of the institution is divided up functionally (e.g., nursing, radiology, dietary and so forth); thus, there is a clear division of labor. The primary mission is providing patient care with teaching and research as secondary goals. The hospital functions within a framework of rules and regulations which define standards and practices in terms of functions, as well as personnel practices.

Fiscally, the hospital supports the philosophy that

all services are charged for and that services should be cost effective, so that a small percent of revenue above the cost of maintaining the organization is realized annually. The financial system supports a functional division by cost centers which are managed by department heads who report through the hierarchy to a divisional administrator. The institutional tradespeople and clerical staff, including nursing assistants, belong to a union. The ratio of employees per bed is 5:0, which includes physicians and residents.

Nursing Department

The nursing department is a subunit of the total organization. It functions with a traditional hierarchical administrative structure with the nursing staff assigned to functional nursing units. Decision-making in the department is both centralized and decentralized (i.e., decisions that affect the whole department are made by the directors of nursing, and the day-to-day operational decisions are made by the head nurses).

Each nursing unit is managed by a head nurse who has responsibility and authority for the day-to-day operations of the unit. Based upon allocation of budgeted positions, the head nurse has the freedom to schedule and staff in order to assure the efficient operation of the unit. The head nurse group reports to clinical coordinators (frequently known as assistant directors of nursing) who

are responsible for the supervision of a group of clinical units (see Figure 4). Specifically, the head nurses are accountable to the director of nursing service for the allocation of resources, budgeting, overall planning, overseeing personnel practices, and maintaining inter-departmental relationships.

The education division provides regular inservice and continuing education programs. Each clinical unit has a clinical instructor who provides orientation to the staff, acts as preceptor to new graduates, and presents/plans inservices for the staff, as needed. The position is not full time; therefore, the instructor works as a staff nurse when not in the instructor role.

The department has no formal reward system for excellence in nursing practice. As a civil service institution, seniority plays a major part in promotion of staff nurses, in addition to the nurses' clinical competence.

The department maintains policies and procedures to provide for standards and regulation of safe practice. The department has a number of standing committees with nursing staff serving as chairpersons and members. Hospitalwide committees such as infection control, pharmacy, and therapeutics (those required by the Joint Commission for Accreditation of Hospitals) have nursing representation, usually from the management group of

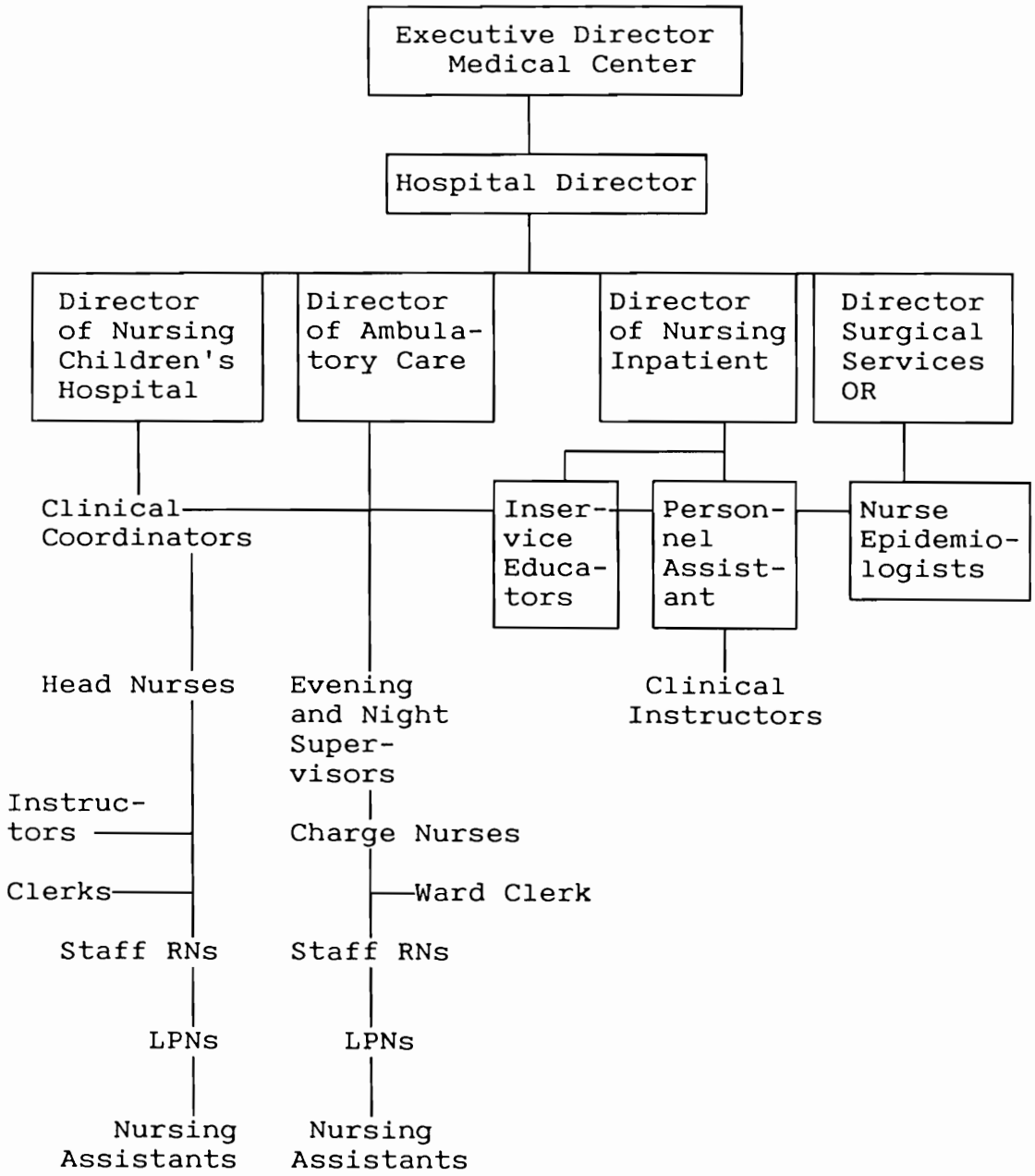

Figure 4. Hospital 2 department of nursing organization chart.

nurses.

Charging System for Nursing Care

Each nursing unit is a separate fiscal cost center. A monthly financial statement is generated that illustrates, by monthly breakdown, the budget and expenditures by line item of personnel salaries and benefits, as well as supplies charged to the unit and not to a patient. The statement is known as the responsibility report, and identifies variances from the budget. The patient classification system is the basis for the collection of data used to develop the charges billed to the patient. This system is also used to identify staffing needs that are reflected and, annually, provides data for staffing needs in the budget.

The patient classification system is comprised of categories of skills which convert into hours of care by acuity. This information is sent to a central financial area where charges are applied to the hours of care and to the skill level of the caregiver. The cost is computed by adding the caregiver's salary and benefits. Fixed costs are also added onto each charge. These include salaries for head nurses and clerks, general patient care supplies, administrative staff, inservice costs, and shift supervisors, but do not include the general overhead of the hospital. This information is collated and computed by patient days to produce the patient charge.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The purpose of this study is to describe a working model of two complex health care institutions that identify characteristic organizational phenomena essential to the successful development of a system of charging for nursing care. The study is significant because it provides, at least, a beginning model of organizational characteristics at the institutional level, characteristics of a nursing department, and methods of accumulating data to develop charges for nursing care. Nursing departments are an important marketing source for any health care institution. Consumers expect a concerned, caring nursing staff, and other health care disciplines need to work with knowledgeable, professional nurses in a collaborative, meaningful way.

An important part of marketing nursing services is to be able to accurately define nursing care in terms of money. Specifically, the variations in nursing care rendered to hospitalized patients, based upon their needs, should be financially quantified. Toth (1984) suggests that an accounting system that produces a detailed,

billing system statement that shows services provided by nurses will provide the consumer with a better understanding of the general charges billed.

The conceptual framework is based upon the historical evaluation of the nursing profession as an extension of medicine and as a dichotomous female occupation caught up in confusion of roles and boundaries. The nursing department in any health care institution embodies bureaucratic principles of organizational control. Within this environment, nursing is the most labor-intensive and the largest spender of health care dollars in the institution; yet, historically, nursing has not been held accountable for its services financially. The economic climate notwithstanding, it is essential for nursing to identify its value as a profession and as a provider of marketable services. Additionally, nursing must be able to compete for funds within the institution with other revenue-producing departments.

The study was conducted at a western hospital that is part of a private university and which provides acute, tertiary care and a community hospital with teaching ties to a university in the midwest that also provides acute care. The sample included the director of nursing services, associate/assistant directors of nursing services, 4 head nurses, the hospital administrator, associate/assistant administrators, the chief financial

officer, and the assistant financial officer at each institution (total = 26 interviewees). Qualitative data were collected using semistructured interviews. The questions for the interviews were structured for each category of interviewees. These questions elicited responses pertaining to the organizational authority structure, span of control, financial system, patient care systems, nurse staffing methodology, patient classification system, and various belief issues about charging for nursing care. Additional data were collected from various written materials including organizational charts, job descriptions, financial statements, philosophies, and policies and procedures.

Data from the interview questions were managed and analyzed by developing related categories based upon content analysis. The categories of responses were then related to each research question for each group of interviewees. Additional data from written materials were used to describe the two study organizations.

The research questions were:

1. What are the organizational characteristics of the two complex health care institutions in which nursing care is charged for discretely?
2. What are the characteristics of the nursing department in the two complex health care institutions where the nursing budget is separated

from the general hospital budget?

3. How are charges for nursing care identified separately so as to reflect not only nursing care expenses, but also revenue generated by the nursing department?

The organizational characteristics of the two complex health care institutions include the goals of the organizations, criteria for complexity, lines of authority, division of labor, decision-making processes, fiscal attributes, communication systems, relationships with other health care agencies and ideal behavior of managers. These characteristics are summarized in Table 7.

The organizational characteristics of the nursing department in the two complex health care institutions include the lines of authority, division of labor, decision-making processes, communication system, nursing care and reward systems, standards for clinical practice, and the influence of the department upon the institution. These characteristics are presented in Table 8.

How nursing care charges are identified to reflect both nursing care expenses and revenues are depicted in Table 9. They include decision-making, goals, patient classification system, data collection system, values/problems, ethical issues, and advice to other institutions.

Table 7

Organizational Characteristics of the Two Health Care Institutions

	Hospital 1	Hospital 2
PURPOSE		
Goals	Patient Care; Teaching; Research.	Patient Care.
ENVIRONMENT		
Criteria for Complexity	More than one group governance structure. Service and education. Competition between private and faculty physicians -- teaching and nonteaching patients.	More than one group governance structure -- number of programs -- size of budget.
Size	Substantial change would affect numbers of people, numbers of rules, and methods of communicating.	Substantial change would affect numbers of people, numbers of rules and methods of communicating.
Competition with other Health Care Agencies	Quality of service -- technical expertise -- program.	Caring staff -- quality of service -- patient care first priority.

Table 7 continued

	Hospital 1	Hospital 2
STRUCTURE		
Authority		
Lines of Authority	Formal chain of command -- several administrative levels.	Formal chain of command -- few administration levels.
Decision-Making	Predominantly centralized except for routine functions.	Predominantly centralized except for routine functions.
Communication	Primarily through formal meetings.	Formal meetings supplemented by frequent, informal contact.
Responsibility		
Division of Labor	Functional by programs and areas of specialization.	Functional by areas of specializations.
Behavior of Managers	Independent, hard-working, dedicated, accept construc-tive criticism.	Caring, honest, hard-working and constructively critical.

Table 8

Organizational Characteristics of the Nursing Department in the Two Complex Health Care Institutions

	Nursing Department	
	Hospital 1	Hospital 2
STRUCTURE		
Authority		
Lines of Authority	Formal chain of command, several layers of managers.	Formal chain of command, fewer layers of managers.
Decision Making	Centralized to Directors of Nursing. Decentralized for routine, daily operations to head nurses.	Centralized to Directors of Nursing. Decentralized for routine daily operations to head nurses.
Communication	Many formal meetings with some informal encounters.	Fewer formal meetings -- more informal communication.
Responsibility		
Division of Labor	Functional -- divided by medical services and by the job descriptions of employees.	Functional -- divided by medical services and by the job descriptions of employees.

Table 8 continued

	Nursing Department	
	Hospital 1	Hospital 2
Patient Care Systems		
Nursing Care System	Primary and total patient care provided by registered nurses.	Primary and total patient care provided by registered nurses.
Reward System	Staff nurse union controls benefits -- clinical advancement series rewards clinical practice.	Civil service institution with seniority as major promotional criteria.
Standards for Clinical Practice	Not utilized except in special cases (i.e., care of patients with heart surgery).	Utilized very infrequently.
Influence of the Department	Strong influence on institution -- conversely, this influence affects nursing negatively.	Appears to have positive, strong influence in institution.

Table 9

Charges for Nursing Care Identification

	Hospital 1	Hospital 2
Decisions		
Goals	Economic -- show nursing as revenue center.	Economic -- may increase revenue by variable billing -- show nursing as profit center.
Decision Making	Decision to charge made by the director of nursing group. Physicians and finance officers did not support.	Decision to charge made by the director of nursing group. Support provided by physicians and finance officers.
Financial Systems		
Organization	Hospital board is final authority. Does not budget for a profit -- managers required to explain budget variances.	Hospital board is final authority. Budgets for additional revenues for working capital -- Managers required to explain budget variances.
Patient Classification	Prime tool for identifying patient needs.	Provides for mechanism that is essential to identify patient needs.

Table 9 continued

	Hospital 1	Hospital 2
Data Collection	Hours of care computed by registered nurse every 8 hours - charges computed based upon formula that includes salaries and benefits of nursing staff only.	The system is essentially the same as hospital 1 except the fixed costs are computed so that they include central administration staff salaries and benefits.
Moral Issues		
Values/Problems	Provides mechanism for identifying market value of nursing services. The problems are maintaining accurate charges -- explanation to patients and families.	Recognizes the worth of the nursing department. Provides for identification of real cost of nursing in relation to revenues. Third party payers refuse to accept charges.
Ethical Issues	Public right to know what it is charged for.	Nurses must be accountable and trustworthy.

Table 9 continued

	Hospital 1	Hospital 2
Advice to Other Institutions	Consistent nursing leadership. Predominant registered nurse staff. Commitment and diligence by nursing staff.	Must have valid and reliable patient classification system. Nursing department must be credible and have support from administration and finance.

Conclusions

Both study organizations have traditional organizational structures following the bureaucratic model. The hospitals have hierarchies of authority and the work of the institution is divided up functionally. The stated missions of the two institutions differ in that hospital 1 stresses education and research as much as it does patient care, while hospital 2 emphasizes patient care as its primary goal with education and research much less important. Both organizations have complex governance structures. Hospital 1 is governed by the university and has a medical administrative structure which includes university-employed physicians and independent, community physicians. Hospital 2 is governed by a commission that includes county officials. The physician group is organized into a corporation that controls all the medical activities of the medical center. Both organizations have formalized rules and regulations and standards for personnel and functional practices. Major decision making is centralized while daily operational decisions are decentralized.

The financial system in both institutions maintains the goal of a small percentage of profitability for working capital. Routine financial control, including the budget, is maintained at the department head level in the form of cost centers.

The nursing departments of both institutions are organized in the traditional model. They have a formalized chain of command with a functional division of labor by medical services. The departmental practices are driven by rules and regulations and standards of practice. Both departments are centralized in terms of broad decision making and decentralized for daily, routine functions. Hospital 1 has a many-layered chain of command which causes slower problem solving and requires more complex communication mechanisms, such as frequent meetings. Hospital 2 has a flatter chain of command, seems more oriented to informal communication, and appears less ponderous.

In both institutions, the job descriptions for the management staff appear similar. Scheduling and staffing practices appear the same. Both practice a combination of primary nursing and total patient care. Hospital 1 has a staff nurse union which controls the "blue collar practices," that is, fringe benefits such as hospital insurance plans, salary structure, hours of work, and so forth, and a clinical advancement series which rewards professional growth. Hospital 2 is a civil service facility and its reward system leans toward seniority as a major promotional approach.

The system used to charge for nursing care is based upon data collected with the patient classification

system. The skills identified as necessary for the care of the patient are computed each 8 hours by a registered nurse. A time factor is applied to all the activities. The actual creation of the charge is computed in a financial center of the institution using salaries and benefits, and fixed indirect costs. Although hospital 1 charges are calculated separately, they continue to be listed as part of the room rate on the bill. Hospital 2 collects the data for a financial database; however, it discontinued the practice of billing for nursing care separately when the various third-party payers started paying prospectively. The reason for this was that the prospective payment system pays based upon disease categories, rather than services provided.

The analysis of data from the interview questions suggests that charging for nursing care can be accomplished if the institution has a reliable means of collecting patient care data. Most institutions use a patient classification system. The financial system must be able to accept the data and apply the costs so that a charge can be generated.

A staff composed predominately of registered nurses with very little turnover is valuable. A nursing department with consistent leadership that is respected (along with rules and regulations that clearly define expectations of practice and behavior, as well as

appropriate reward systems) will help to maintain a fairly stable staff. The organizational structure does not affect the charging system, per se. It does affect the motivation and dependability with which patient needs are honestly identified, the quality and quantity of care provided, and the commitment to making sure data are collected for charging.

The results of this study demonstrate that both hospital 1 and hospital 2 were able to design and implement a system of charging for nursing care within their organizational structure, despite differences bewteen these structures. Neither hospital bills the patient for nursing care charges separately; that is, as a separate fee-for-service bill. However, hospital 1's billing system breaks down the room charges so that the consumer can see what makes up this charge -- in that way, nursing charges are separately identifiable. Hospital 2 does not break down the room charges on the patient bill. Both institutions collect and maintain charges for nursing care data which are used in both institutions as a basis for change in room charges and for forecasting future budgetary expenses which may be allocated to nurse staffing needs based on patient acuity and numbers.

Limitations of the Study

The study was intended to generate qualitative data to describe the institutions, the nursing departments, and

the charging systems for nursing care. Thus, theory development and theory testing were beyond the purpose and scope of this research. The case study design limits generalization to other complex, health care institutions.

One dimension of external validity in research that generates quantitative data concerns the degree to which the sample in a study is representative of the population to which the generalization is desired (Drew, 1980). Cronbach (1975), however, indicates that "social phenomena are too variable and too context-bound to lend themselves to generalization" (p. 120). He further suggests that qualitative data drawn from uncontrolled, naturalistic settings contribute to the development of working hypotheses and not absolute conclusions. Guba (1978) proposes that

> ...the investigator should do what he can to establish the generalizability of his findings.... Often naturalistic inquiry can establish at least the limiting cases relevant to a given situation (p. 281).

He indicates that the investigator should consider each possible generalization as a working hypothesis to be tested again and again. Patton (1980) suggests that qualitative research methodology provides assumptions leading to truths and data helpful in making decisions other than the generation and verification of universal theories. These authors suggest that generalizability of qualitative data should not be sought since the data are

oriented toward a particular social phenomena which should be verified if the conclusions are applied in another context.

Additional limitations of the study include: (a) the use of only one researcher to collect, analyze, and interpret the data, causing a potential threat to the validity of the study; (b) time constraints due to the research being conducted for a doctoral dissertation; (c) the interview schedule provided for the collection of a large amount of qualitative data which was analyzed without the use of a computer, perhaps causing a lack of objectivity; and (d) directors of nursing identified the head nurse informants and the directors may have been biased in their selections.

Implications for Nursing

Although the organizational structure does not affect the ability to charge for nursing care directly, it helps to provide a milieu which supports the charging system. Specifically, enlightened hospital administrators who encourage and support the system will also communicate its advantages to the hospital community and to the public, at large. The first advantage is, for the most part, patients come to the hospital for nursing care, and charging for nursing care adds a dimension of consumerism that, heretofore, did not exist. The patient or the patient's payer may now more intelligently question the

cost of health care services received which are specifically identified by these charges. The consumer may elect to choose less nursing care (i.e., the family could provide basic needs such as bathing, feeding, etc.). Second, historically, nursing has been seen as an extension of medicine; thus, charging for nursing care identifies the profession of nursing as independent, autonomous, and responsible for its own actions. Financial officers will provide support by utilizing an appropriate accounting system for developing the charges for the nursing activities associated with the needs of the patients. The system requires an expenditure of monies, and thus the financial officers must recognize a benefit to the institution so as to provide the financial support necessary.

The nursing department has defined goals and rationale for the charging system, which form the basis for a consistent, strong, and respected leadership, and a fairly stable registered nurse staff who are comfortable in the decision-making arena. These criteria will enable the development and continuation of a system for charging nursing care.

Charging for nursing care requires a mechanism for identifying nursing activities in relation to patient needs. These nursing activities are a large part of the role of the professional nurse and have been poorly

defined in the past. The charging system, therefore, forces the profession to identify its responsibility and accountability for that portion of patient care that it attributes to nursing practices. The charging system for nursing care permits a more accurate budget assessment of both actual and projected costs of nursing care.

The ethical issues in charging for nursing care are diverse and complex. Embedded in every organization and every economic reward system are implied, ethical decisions. Usually, these decisions are made routinely without much thought. However, when a structure changes, a new set of ethical decisions (problems) arise.

For example, over time health care institutions have never competed with one another and have not specifically practiced the business attitude of profits. Today, health care corporations exist to make a profit. The market competes for the "paying" patients (e.g., community hospitals send indigent patients to teaching hospitals).

Historically, patient care was given without monetary question and nursing provided the services without being specifically identified. From an ethical perspective, nurses in the past have not been as accountable to consumers as they will be in the future because the nursing services were not directly reimbursed. When the interviewees claimed it is ethical to charge for nursing services, they were inferring that reimbursement for

nursing services does, in fact, have moral and ethical undertones.

Implications for Further Research

A patient classification system is an integral and necessary data base for creating charges for nursing care, and further study is needed to insure validity and reliability of data collected in this study. Replication studies of other institutions that charge for nursing care should be conducted to validate and expand the data collected in this study. These studies should add staff nurses to the interview group. In addition, the interview guides might be refined so as to group various questions in a more meaningful and useful way.

At present, the patient classification system is most commonly used to collect data for creating charges for nursing care. Future investigations should identify other data sources, such as the use of patient care standards as a basis for developing nursing care charges.

A final recommendation is that the nursing department should have a predominantly professional nurse staff with low turnover to collect reliable and valid data about nursing care charges. Since turnover of nursing staff is a major factor in many health care institutions, which increases the cost of nursing care, studies would be useful that identify differences among institutions that

have low turnover ratios as compared with institutions that have higher turnover rates.

APPENDIX A

LETTER OF INTENT

Date _____

Ms./Mr._____, R.N.
Director of Nursing Services
Hospital_____
Street_____
City, State, Zip_____

Dear Ms./Mr._____:

I enjoyed talking with you by telephone and am delighted that you will participate in my study. The purpose of the study is to develop a conceptual model of complex, health care institutions that will identify characteristic organizational phenomena essential to the successful development of a system of charging for nursing care.

As I indicated, I will want to interview you and your associate/assistant directors of nursing services, as well as four head nurses representing the medical, surgical, obstetrical, and psychiatric services. I, also, wish to interview the hospital administrator and associate/assistant administrators, and the chief financial officers. While at your institution, I would like to spend some time reviewing certain documents such as the nursing departmental philosophy and objectives, organizational structure, and financial statements.

The interviews will be structured, in that I will ask specific questions. The questions will center around the formal structure, functions, and goals of the organization, as well as questions relating to specific nursing systems such as your patient classification and the charging system for nursing care. Of course, the institutions and the participants will remain anonymous, and all data will be kept confidential.

I believe the results of this study will be helpful to other hospitals in preparing for the implementation of a nurse charging system. I will keep you informed as to the time when we can mutually agree that I will visit your institution. Should you have any questions (or suggestions), please call me at my home (collect, (801) 583-5625. I look forward to my visit with you.

Sincerely,

Helen K. Kee
4222 Emigration Canyon
Salt Lake City, UT 84108

APPENDIX B

CONSENT FORM

Informed Consent

My name is Helen Kee, and I am a doctoral student in nursing administration at the University of Utah College of Nursing in Salt Lake City, Utah. I have received permission from the Director of Nursing Services to request your assistance in carrying out a nursing research study in your institution.

The rationale for the study is that in order for a nursing department to develop a charging system for nursing services, it is believed that certain structural and functional characteristics must exist within the organizational environment. The purpose of the study is to identify these structural and functional characteristics in two complex, health care institutions, as well as the nursing department's characteristics within these institutions.

The method to be used by the researcher will be semistructured interviews with the Director of Nursing Services, selected Head Nurses, administrators and financial officers. A review of selected organizational documents such as the nursing department's philosophy and objectives, organizational chart, and financial statements will also be utilized to support the research.

The ethical considerations that will be adhered to are that all data are confidential for use by the researcher and the researcher's committee members only (five member Ph.D. committee). A tape recorder and notes will be used for the interviews. The interviews and notes will not contain either the names of the institution or the persons interviewed. Rather, they will be coded, and the code will be destroyed when the research is completed. The benefits of the study will be to provide data for the development of a model of organizational characteristics that will contribute to the development and implementation of a charging system for nursing services in other complex health care institutions.

The risks as envisioned by the investigator may include questions that invade the privacy of the subjects and the use of the subject's time.

If there are any questions regarding the research study, the subject may contact the investigator by telephone (collect) at (801) 583-5625 and if there is a problem that the subjects feel they cannot discuss with the investigator, they may contact the Institutional Review Board office at (801) 581-3655.

Participation in the study is voluntary and subjects may withdraw from the study at any time without penalty. If subjects agree to participate in the study, their agreement constitutes an informed consent; however, it is required that the subjects sign the informed consent form with one copy retained by the subject, one by the investigator, and a third copy to be retained by the Institutional Review Board.

Thank you for your participation in this study.

Sincerely,

Helen K. Kee, R.N.
4222 Emigration Canyon
Salt Lake City, UT 84108
(801) 583-5625

Subject Signature_____

APPENDIX C

DEMOGRAPHIC INFORMATION

Basic nursing education_____

Highest degree:

in nursing?_____

other area?_____

How long have you been practicing in your profession?

_____ years _____ months

How long have you been employed in this institution?

_____ years _____ months

What is your present position?_____

Age_____

For Administrators and Finance Officers

Highest degree?_____

How long have you been practicing in your profession?

_____ years _____ months

How long have you been employed in this institution?

_____ years _____ months

What is your present position?_____

Age_____

APPENDIX D

INTERVIEW SCHEDULES

Directors of Nursing Services

1. In what way does the size of your institution influence the organizational structure?

2. How would you define the "complexity" of your institution?

3. What do you perceive are the goals of the organization?

4. What is the span of control per divisional director of nursing?

5. What are the responsibilities and authority of the divisional directors of nursing?

6. What decisions are the sole responsibility of the head nurses?

7. In what way is the director of nursing services and the assistant directors involved in hospital-wide decision making?

8. In what way are staff nurses involved in hospital-wide decision making?

9. What career advancement programs do you have for the employees?

10. Describe the reward system for staff nurses.

11. Describe how formal rules regarding the operation of the department lead to more/less administrative control.

12. What systems of communication to managers and employees do you use?

13. Does your patient classification system use standards of patient care? Explain.

14. Is the patient classification system used for charging for nursing care? Explain.

15. How was the decision to charge for nursing services made? Who made it? Were there any groups that did not support this system?

16. Before developing the charging system for nursing care, was the department divided into cost centers?

17. What are patients charged for and how was this decision made?

18. What criteria did you use to determine the charges for nursing services.

19. In setting up the charging system, what difficulties did you encounter?

20. What value does the charging system for nursing care have to nursing? To the institution?

21. What are the problems associated with the charging system for nursing care?

22. What advice would you offer to an institution developing a charging system for nursing care?

23. What organizational characteristics are most important in developing/maintaining a successful charging system for nursing care?

24. What are the ethical considerations in terms of charging for nursing care?

25. Who is responsible for creating the annual budget for your department?

26. Are managers accountable for evaluating the budget regularly? Explain.

27. What controls exist to monitor the divisional budgets?

28. How are the administrative costs broken down in the department?

29. What kinds of people do you like to work for and to have work for you?

30. How much influence do you believe the nursing department has in this institution? Explain.

Head Nurses

1. What do you believe are the goals of this organization?

2. What decision-making powers do you have in terms of your unit? Department? Hospital?

3. Generally, what kind of assistance do you request from your immediate supervisor? In what way could the supervisor assist you?

4. Discuss your beliefs about decision making at the division/supervisory level?

5. What authority do you have in making changes?

6. What educational resources are available to you and your staff? In what way are educational activities charged for?

7. In what way is staff development involved in the professional development of the staff nurses?

8. In what way are you involved in hospital policy decision making?

9. What committees do you serve on?

10. How many employees report to you? RNs? LPNs? NAs? Clerks? Others?

11. How do you determine staffing per shift? Do you have a float system? Explain. What nursing system do you use?

12. Describe your scheduling methods. Permanent shifts. Requests.

13. How is the patient classification system utilized?

14. Describe the relationship of the patient classification system to your staffing methods.

15. Do you use standards of care? In what way? How were they devised?

16. What responsibility and authority do you have in developing the budget?

17. In what way are you accountable regarding the financial activities of your unit?

18. When decisions ar made in the department, what do you believe the decisions are responsive to (e.g., patients, nurses, economics, outside parties)?

19. Describe how formal rules regarding the operation of the department lead to more/less administrative control.

20. Generally speaking, who makes the major departmental decisions involving long-term planning?

21. How much influence do you believe the nursing department has in the institution?

22. What part did you play in the development of the charging system for nursing care?

23. How are data for the charging system collected? By whom?

24. What value is the charging system to the nursing department? To the institution? If you took it away would it make a difference?

25. What organizational characteristics are most important in developing and maintaining a successful charging system?

26. What are the ethical considerations in relation to charging for nursing care?

27. Describe briefly the kinds of people you like to work for and have work for you.

Administrator

1. What are the goals of this institution? Prioritize patient care, teaching, and research.

2. In what way does the size of your institution influence the organizational structure?

3. Ratio of administrators is sometimes related to the size of the institution. What are the factors you would consider when deciding on the number of administrators?

4. How would you define the "complexity" of your institution?

5. Do you believe that formalized standards for operational procedures are necessary? Why?

6. Do you believe the formalized standards for operational procedures are necessary? Why?

7. In what way are formalized standards of operations lead to more/less administrative control?

8. In this institution, how accountable are managers for preparing the budget and for control of the budget routinely?

9. Discuss your beliefs about decision making at the division/supervisory level.

10. In your role as administrator, are you the final decision maker?

11. What systems of communication with managers and employees do you use?

12. What type of promotion system do you believe is best?

13. In what way do you compete with other health care agencies in the community?

14. In what way do you equate education with position?

15. How much influence do you believe the nursing department has in this institution? Explain.

16. What were the basic factors that brought the charging system for nursing care into existence?

17. How do you view the adoption of the charging system

for nursing care?

18. Does the charging system for nursing care have value for the institution? Why?

19. Describe the type of people you like to work for and have work for you.

20. If patients could select where they get their health care, why should they come here?

21. What advice would you offer to an institution developing a charging system for nursing care?

22. What are the ethical considerations in relation to charging for nursing care?

Financial Officers

1. What are the goals of this institution?

2. Who has the final authority on fiscal matters?

3. What is the hospital's basic philosophy toward it's financial operation?

4. Does your hospital use a costing system? If so, what is it?

5. Are there any services rendered for which there is no charge? Explain.

6. How are the goals of patient care, teaching, and research programs prioritized?

7. To what extent do the managers participate in long-range planning and budget determination?

8. How many FTEs do you have per occupied bed?

9. Are any of the employees unionized?

10. How would you define the "complexity" of your institution?

11. How much influence does the nursing department have in this institution? Explain.

12. What do you believe is the value of a charging system for nursing care for this institution? Explain.

13. What are the problems associated with the charging system for nursing care?

14. Is there an increase in patient charges due to the additional work associated with the charging system for nursing care?

15. In setting up the charging system for nursing care, what surprised you the most?

16. What obstacles did you consider most problematic in developing the charging system for nursing care?

17. What advice would you offer to an institution developing a charging system for nursing care?

18. What organizational characteristics are most important in developing and maintaining a successful

charging system?

19. What are the ethical considerations in relation to charging for nursing care?

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