Title
Descriptive study of models of discharge planning and case management in California

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Dedication

This dissertation is dedicated to Robert Lyon, for his understanding and support during the development of this dissertation.

Descriptive Study of Models of
Discharge Planning and Case Management
in California.

In response to Diagnosis Related Groups (DRGs) and other financial pressures, some hospitals have introduced innovative programs through the expansion and redefinition of discharge planning and case management services. A primary barrier to the study of hospital discharge planning and case management programs has occurred due to the use of multiple labels for the programs offered, and a lack of common definitions of terms.

The aim of this descriptive study was to survey all acute care hospitals in California that had medical/surgical services as the primary patient service, to locate the innovative programs, and to identify and describe the type of discharge planning services that were offered. Hospital discharge planning services were classified into traditional discharge planning (TDP), expanded discharge planning (EDP), and case management (CM) services. Traditional discharge planning was defined as discharge planning services that ended at the time of patient discharge from the hospital. Expanded discharge planning was defined as contact with the patient by hospital staff for up to two weeks following discharge. Case management was defined as ongoing patient contact and coordination of services for longer than two weeks following hospital discharge.

Of the 417 California hospitals believed to be eligible for inclusion in the study, 209 participated in the survey by completion of the mailed survey. The mean hospital size was 226 beds. Seventy-eight percent of the hospitals were non-profit or public hospitals, and 22% were profit hospitals. Profit hospitals were under represented among the responding hospital sample. The mean length of stay was 5.8 days, with a mean of 69% Medicare patients served. Of the 206 hospitals that described their discharge planning staff, there were 872 discharge planners, 51% of which were nurses.

Sixty-eight hospitals were identified as offering EDP services, and were included in a follow-up telephone survey. The mean size of the hospitals with EDP services was 193 beds. Seventy-nine percent of the hospitals were non-profit or public hospitals. The EDP hospitals tended to be non-profit, larger hospitals, located in greater numbers in Central or Southern California. Seventy-percent of the staff in the EDP programs were discharge planners or social workers. Forty-three percent of the hospitals had contact with patients between 2-7 days following patient discharge. Thirty-five percent of the hospitals contacted the patients primarily to evaluate if the discharge plan was adequate, and to intervene if necessary.

Eleven hospitals were identified that offered case management services. These hospitals were included in a

follow-up telephone survey. The mean size of the CM hospitals was 484 beds. Eighty-two percent were non-profit, and 18% were public hospitals. No profit hospitals were identified as offering case management programs. Of the 94 case managers employed in the 11 hospitals, 25% were nurses, and 75% were non-nurses. The benefits of the CM programs included to: (1) decrease hospital readmissions; (2) promote independent living for elderly living at home; (3) improve the quality of patient care/outcomes; (4) provide a community service; (5) decrease the inappropriate use of the Emergency Department; and (6) provide patient advocacy. A lack of outcome measurement among the CM programs precluded validation of these perceived benefits of the CM programs.

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CHAPTER ONE

THE STUDY PROBLEM

THE STUDY PROBLEM

Introduction to the Problem

Background

Because of the dominant position that hospitals occupy in the health care industry, it is the sector of health care that consumes the greatest percentage of financial resources (AHA, 1989). Congress enacted the Tax Equity and Fiscal Responsibility Act (TEFRA) in 1982 to control utilization increases and double digit inflation in federal Medicare spending (AHA, 1989). Under TEFRA, hospitals received reimbursement retrospectively on a basis of average cost per case. Hospitals received incentives to reduce costs by sharing in payment excesses or shortfalls (AHA, 1989).

Congress passed the prospective payment system (PPS), Public Law 98-21 the Social Security Amendments of 1983, in the Spring of 1983 and implementation of the program began in October, 1983. The primary objective of the PPS was to slow the growth of hospital costs while ensuring access of beneficiaries to quality health care (Guterman & Dobson, 1986). Under PPS, reimbursement to hospitals includes fixed-rate prospective payments to hospitals providing health services to Medicare patients. Payment is based upon the average length of stay for patients who fall within several diagnosis related groups (DRGs). Hospitals receive a fixed amount of money based on the relative cost of

resources used to treat patients within each type of DRG (AHA, 1989).

The PPS was also designed as a financial incentive to hospitals to keep costs down as payments in excess of hospital costs could be kept, and conversely, the hospitals would have to absorb losses for costs more than payments (AHA, 1989). Because of this prospective reimbursement system, hospitals have been searching for ways to decrease the lengths of stay and thus decrease the cost of providing care for Medicare patients, while maintaining or improving the quality of patient outcomes (Medicare and Medicaid Report to Congress, 1989; Guterman & Dobson, 1986).

Besides the introduction of the prospective payment system for Medicare patients, other third party payers either pay or have negotiated preferred provider contracts with hospitals based on DRGs (U.S. Dept. of Commerce, 1990). These types of prospective reimbursement systems place hospitals in a position of financial risk and influence the patient flow and discharge practices (Reamer, 1985). Hospitals no longer receive reimbursement based on charges provided for many services, but receive a pre-negotiated amount of money when providing services to patients under prospective DRG payments. If the amount of reimbursement is less than a hospital's costs, the hospital looses money. If costs consistently exceed reimbursement rates, the hospital

suffers a financial loss, unless other sources of revenue are found to off-set the losses (Guterman & Dobson, 1986). Conversely, if the hospital has negotiated reimbursement contracts that reimburse more than their costs, or if the hospital system is efficient in treating patients who have timely discharges, the hospital can make money (Guterman & Dobson, 1986).

Hospitals have experienced significant changes in utilization and reimbursement patterns over the last ten years (AHA, 1989). The length of stay and rate of patient admissions to the inpatient setting have declined during the 1980s (Medicare and Medicaid Report to Congress, 1989).

Since 1978, the volume of outpatient services has grown while the average length of stay in the acute care community hospital setting has declined and the number of hospital admissions has fallen (AHA, 1989). (See Table 1). The decline in inpatient care and subsequent increase in outpatient services has occurred because of changes in hospital reimbursement and in technological advances that allow many services to be provided in the out-patient setting (AHA, 1986).

	1978	1987	1988	Percent Change 1978-88 (10 years)	Percent Change 1987-88 (1 year)
Admissions (000s)	34,506	31,601	31,453	-8.8%	-0.5%
Average length of stay (days)	7.6	7.2	7.2	-5.0%	0.4%
Occupancy, percent	73.6	64.9	65.5	-11.0%	0.9%

Table 1. Community Hospital Utilization
Source: Hospital Statistics, AHA, 1989.

With an increase in available hospital beds, one would expect hospital costs to decline in a competitive economic market. Hospital expenses rose at an average annual rate of 16% between 1978 and 1982. After DRGs were adopted, hospital costs dropped dramatically, but then began to increase again (AHA, 1989).

One explanation for the increases in hospital costs is the increase in the amount of technological equipment available. With advances in technology and increased demands by consumers for convenient access to the technology, hospitals have purchased expensive technological equipment (AHA, 1989).

Labor costs have continued to increase, escalating overall hospital costs and making it difficult for hospitals

to stay under the prospective payment levels (AHA, 1989). Because of increased financial pressures and the increased competition among hospitals for patients, administrators in hospitals are continuously seeking to implement programs and methods that will decrease the cost of providing patient care, and at the same time maintain quality.

In response to DRGs and other financial pressure, some hospitals have expanded and refined their discharge planning and utilization review efforts to better control patient length of stay and to facilitate discharges (Zander, 1988). Others have developed and implemented more innovative programs for monitoring of patients and for controlling costs and the length of stay (Ethridge & Lamb, 1989; Loveridge, Cummings & O'Malley, 1988). These programs range from a modification of existing discharge planning services at one end of the spectrum, to case management at the other end of the spectrum (see Figure 1). Still other hospitals have considered the expansion of existing discharge planning services or the implementation of models of case management following patient discharge, but have not implemented these services because of the perception that projected start-up and continuing costs would be prohibitive.

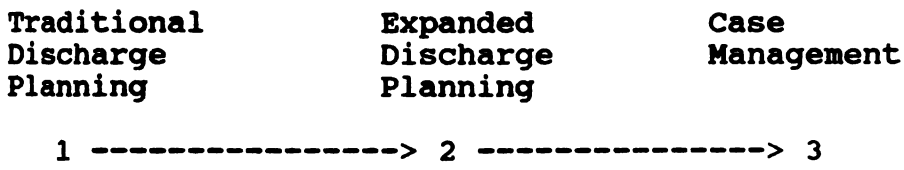

Figure 1. Spectrum of Discharge Planning and Case Management

Problem Statement

The Joint Commission of Accreditation of Healthcare Organizations (JCAHO, formerly JCAH, also called Joint Commission) requires that all hospital patients have a written discharge plan (JCAHO, 1990). Frequently, the discharge services amount to a summary statement made by the patient's nurse on the care plan and in the patient's discharge summary at the time of discharge. Patient records are frequently found to be inaccurate, incomplete and inadequate (Waters, 1987). Often only patients with complicated discharges or those in need of placement in long term care facilities receive the services of a discharge planner or case manager (Rehr, 1986).

A barrier to the study of hospital discharge planning and case management programs has been the use of multiple labels for the programs offered and a lack of common definitions of the terms (Blumenfield, 1986). Not

infrequently, personnel in hospitals who provide utilization review activities are titled case managers, or discharge planners are titled case managers when their job functions are those of traditional discharge planners. Other hospital staff who monitor resource allocation and utilization of services by clients and thus provide managed care services, also may be titled case managers. A compounding problem is the rapid change in hospital discharge programs and a lack of available information about hospital practices and new innovations that are implemented.

A variety of discharge planning models are used in the acute hospital setting. The discharge planning services are generally designed to decrease patient lengths of stay and to optimize patient outcomes (Ethridge & Lamb, 1989; Zander, 1988; Martin, 1989).

To date, limited research has been done to describe or evaluate models of discharge planning and case management that have been introduced in the hospital setting. It is yet to be determined that expanded discharge planning or case management in acute care meets its goals for decreasing patient lengths of stay and thus decreasing hospital costs, or decreasing the readmission rates of patients through the coordination of community services. Thus, the cost of providing expanded discharge planning and case management services may or may not be offset by the cost savings from

the services provided. Whether these expanded models are effective in increasing the quality of care provided to patients discharged from the acute care setting through the coordination of and access to services in the community is also an area in need of study. Although this study does not examine the efficacy of different models of discharge planning and post hospital care, it will identify and describe hospital discharge activities and program goals and objectives.

For the purpose of this study, three types of discharge planning models are identified. These models include traditional discharge planning, expanded discharge planning and case management. Basic definitions will be provided in this section. Information on the purpose of the models, descriptions of the models, and their evolution will be presented in Chapter Two.

Definitions

Traditional discharge planning, expanded discharge planning and case management are defined for this study as follows:

Traditional Discharge Planning

All hospitalized patients expect to receive at least a basic level of discharge planning service to ensure appropriate patient discharges (JCAHO, 1990). The Society for Hospital Social Work Directors (SHSWD) of the American Hospital Association defines discharge planning as "Any activity or set of activities that facilitates the transition of the patient from one environment to another" (SHSWD, 1984). The discharge planning principles include a determination of the (1) patient's post hospital care preferences, (2) patient's nursing and medical needs, (3) patient's capacity for self-care, (4) assessment of the patient's living conditions, (5) identification of health or social care resources needed to ensure high quality post hospital care, and (6) counseling of the patient or family to prepare them for post hospital care (SHSWD, 1984). Patients identified as having complicated discharges because of functional limitations, or lack of assistance in the home, are generally referred for traditional discharge planning services. These services are provided by the discharge planner, usually either a social worker or a

nurse. When the patient is discharged from the hospital, the intervention of the discharge planner ends. No follow-up contact is made with the patient, the family, or physician following the patient's hospitalization to determine if the services provided are appropriate or adequate (Simmons & White, 1988).

Expanded Discharge Planning

A definition of expanded discharge planning services has been proposed (Blumenfield, 1986; Blumenfield & Rosenberg, 1987), and is a phenomenon that is occurring in some hospital settings (Cave, 1989). Often this model is labeled case management, (Zander, 1988; Loveridge, Cummings, & O'Malley, 1988), but in fact there are differences between expanded discharge planning, traditional discharge planning and case management. Expanded discharge planning services are similar to traditional discharge planning services with the exception that services do not end at the time of the patient's discharge. The discharge planner in this model contacts the patient, family, or the patient's physician following discharge to determine if the post discharge services are appropriate, adequate, and effective. The discharge planner intervenes when problems are identified and makes appropriate adjustments in the plan of care, and then monitors the patient's progress. The expanded discharge planning services continue for approximately two

weeks following the patient discharge, when the intervention of the discharge planner ends.

Case Management

In case management, the coordination of client health care services during hospitalization, begins either at the time of patient admission or shortly thereafter, and continues following the patient's hospital discharge, and continues for an unspecified length of time (Ethridge & Lamb, 1989; Simmons & White, 1988). The length of time over which case manager evaluation and intervention occurs is determined by the patient's physical and psychosocial status, and the success of the plan that is in effect. If the patient no longer needs case manager follow-up, the case manager can put the patient on an inactive list, with occasional contact, or have no contact with the patient unless the patient's condition changes, requiring further intervention by the case manager (Ethridge & Lamb, 1989).

Not every patient receiving discharge planning services requires post hospital care in the form of case management. The most efficient use of case management services is to target patients who are at high risk for institutionalization or hospital readmission and those with complex in-home needs (Simmons & White, 1988).

The primary difference between the expanded discharge planning services and case management services is the length

of time over which a patient is followed. The expanded discharge planning service is short term following patient discharge, and ends within approximately two weeks. Case management services extend beyond the first two weeks after patient discharge from the hospital for to an indefinite length of time, depending on patient need (Ethridge & Lamb, 1989).

Although there are several similarities between discharge planning and case management services, the purpose of case management is broader (White, 1988). The goal of discharge planning is to assure continuity of patient care while ensuring the shortest possible inpatient stay. Its goal is to move the patient out of the acute care setting swiftly and safely while assuring continuing care of the patient in the post-hospital care setting that best extends the plan of care received in the inpatient setting (Simmons & White, 1988; White, 1988).

The overall goal of case management is to provide a service delivery approach to patient monitoring in the community setting. Case management services are used to: (1) ensure cost effective care; (2) provide alternatives to institutionalization; (3) provide access to care; (4) coordinate services; and (5) improve the patient's functional capacity (Simmons & White, 1988).

Purpose

The purpose of this study was to conduct a survey of California hospitals to describe the range and types of discharge planning and case management services offered to patients, both during hospitalization and after patient discharge. The second purpose was to use these descriptive data to categorize and classify the types of discharge planning and case management models and to identify the hospitals that provide expanded discharge planning and case management services. A description of these hospital activities will be made available to hospitals and individuals who are interested in the implementation of similar programs. And finally, hospital programs judged by pre-established criteria to have expanded discharge planning or case management were further surveyed and described. Perceived barriers to the implementation of expanded discharge planning and case management programs as described by the directors of hospital discharge planning also was examined.

Significance

Prior to the introduction of the PPS, hospitals had no compelling incentive for monitoring patients following discharge (Beck, 1987; Brody & Persily, 1984; Rosen, 1985). Neither monetary, social, or legal conditions presented motives for patient follow-up after discharge.

since the introduction of PPS, this situation has changed, and hospitals now have incentives for providing intensive discharge planning services and follow-up after discharge.

Hospital costs have continued to increase, escalating the total costs of providing health care in acute care settings, and making it difficult for hospitals to be competitive in the market (Office of National Cost Estimates, 1990; AHA, 1989). Because of this increased competition, administrators in hospitals are continuously seeking programs and methods to implement that will decrease the cost of providing patient care and decrease total costs of providing care, while maintaining quality. Models of expanded discharge planning and case management may very well be programs that can decrease patient length of stay and thus total costs of care. These programs may provide a mechanism for monitoring high risk patients following discharge to ensure the effectiveness of the discharge plan, provide an opportunity to make revisions in the plan as necessary, and prevent unnecessary rehospitalization or institutionalization of high risk patients.

Before empirical studies can be conducted to compare the efficacy of innovative models of discharge planning, it is necessary to first define and describe the programs that are presently being used by discharge staff in acute care hospitals. This information is not currently available on

either a national or state level.

The significance of this study is that it identified the discharge services provided by acute care hospitals in California, classified the hospitals based upon the type of discharge services provided, and described these services. Such a description of discharge services provides models and guidelines for hospitals who are considering the implementation of similar programs. The study identifies sites for further study to determine if expanded discharge planning or case management are cost effective and at the same time able to improve the quality of patient outcomes following hospital discharge.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

REVIEW OF THE LITERATURE

As a background for the proposed study, selective literature related to discharge planning, case management and quality of patient outcome will be reviewed.

Discharge Planning

Hospital discharge planning began at the turn of the century in 1906, at Massachusetts General Hospital, when Dr. Richard Cabot established the first department of social work (Blumenfield & Rosenberg, 1988). This department was comprised of social workers, nurses and others with the primary function to "Augment the physician's treatment of patients by studying, reporting and alleviating to the extent possible the patient's social problems which interfered with the plan for medical care" (Cannon, 1913). Discharge planning is defined by the American Hospital Association (AHA) as an "Interdisciplinary hospital wide process that should be available to aid patients and families in developing a feasible post-hospital plan of care" (AHA, 1986).

Studies of discharge planning suggest that the implementation of DRGs has had a direct impact on decreasing patient lengths of stay and thus decreasing the time available for discharge planning (Dinerman, Seaton & Schlesinger, 1987; Bull, 1988; Coulton, 1988; Blumenfield & Rosenberg, 1988).

There is no question that changes in reimbursement structures are motivating hospitals to alter their discharge planning services. Blumenfield (1986) advocates that discharge planners find creative ways to maximize time spent in patient contact. Methods for doing so include earlier case finding, preadmission screening, and identification of high risk patients (p.52). Blumenfield further recommends that discharge planning extend from the hospital into the community following patient discharge. Services include psychosocial interventions, telephone follow-up, and case management, and be targeted to chronically ill patients with records of recidivism (Blumenfield, 1986; Blumenfield & Rosenberg, 1988). Justification for post-discharge follow-up services is based on the belief that a cost-benefit would be achieved in improved public relations and in prevention of unnecessary rehospitalizations (Blumenfield & Rosenberg, 1988). These post discharge services can be in the form of expanded discharge planning or case management.

Case Management

Case management, although a somewhat new model to emerge in the acute care setting, is not a new concept. Much is known about the origins and models of case management and nursing participation in case management outside of the acute care setting. Case management services have been in place and studied in public health, mental

health, and long term care settings and reported in the literature for many years (Weil & Karls, 1985).

Community service coordination, which was a forerunner of case management, began at the turn of the century in public health programs. These community service and case management programs have been reported in the nursing literature since the early 1900s. Service coordination eventually evolved into case management, a term that first appeared in the social welfare literature during the early 1970s (Grau, 1984). The concept of "continuum of care" came into use following World War II to describe the long term services required for discharged psychiatric patients (Grau, 1984).

Case management is described in a variety of ways. One proposed definition is that "Case management is a set of logical steps and a process of interaction within a service network which assures that a client receives needed services in a supportive, effective and cost-effective manner (Weil & Karls, 1985, p.2).

In the 1981 Omnibus Budget Reconciliation Act (PL 7970-35), case management is defined as "A system under which responsibility for locating, coordinating, and monitoring a group of services rests with a defined person or group" (p. 373). Both definitions are broad enough to be used with a variety of case management models. Case management has a

long history of use in a variety of settings with the mentally ill and elderly patients, and in the community setting (Steinberg & Carter, 1983).

Case Management in Mental Health

In the mental health setting during the late 1960s and early 1970s, an emphasis was placed on moving patients from mental health institutions into the community (Crosby, 1987; Pittman, 1989). The coordination of community mental health services in California became important during this time as a result of the Community Mental Health Centers Act of 1963, which had placed federal approbation on deinstitutionalization, and there was a movement of patients from the large state institutions to the community (Crosby, 1987).

Several problems resulted from the deinstitutionalization of mentally ill patients, and by 1977, Congress acknowledged that many disabled people had been deinstitutionalized without proper follow-up or monitoring of health care and basic needs in the community. Congress further recognized that many readmissions to state hospitals could have been avoided through a systematic approach to service delivery. Case management in community mental health provided a means of avoiding fragmentation of client services (Miller, 1983; Crosby, 1987; Pittman, 1989).

Case Management and the Elderly

Historically, specific services for the elderly emerged partly in recognition that older persons are not adequately serviced in age-generic programs. It was also identified that many older people have special, and often multiple health care needs that are population specific. Thus, the elderly are a population frequently targeted for case management services, specifically those individuals who are home-bound or have complex problems that place them at risk for institutionalization (Secord, 1987). However, not all older people who need multiple services require a case manager. Patients who have an adequate functional status and can coordinate and access services for themselves, or those who have social support in the form of family members, or formal or informal care givers who provide these functions for them, do not need a case manager (Steinberg & Carter, 1983). Rather, these individuals require adequate information about their options and the services available. In the acute care setting, this information can be provided by the nurse providing direct care, the patient's physician, a discharge planner, or a case manager. Assessment of functional status and social support are perhaps better determinants of which patients require case management services, rather than chronological age.

Purpose of Case Management

Throughout its history, case management has had dual purposes, one client centered, and one system centered. The purpose of client centered case management is to assist the client or patient through a complex, fragmented, and often confusing health care delivery system. In system centered case management, it is recognized that health care resources are finite. Equity and cost-effectiveness require management and allocation of the available resources in a hospital, community, city, state, or in a particular population of clients in need of health care resources. System centered case management serves as a rationing and priority setting function that targets those individuals in a larger group or population who could most benefit from specific services (Kane, 1985).

Case management in the acute care setting is both client centered and system centered. It serves to assist the patients and families who have been identified as needing case management services during and following the hospitalization period to access necessary resources in a time efficient manner. The American Nurses' Association (ANA) has identified the goals of case management to include the "Provision of quality care along a continuum, decreased fragmentation of care across many settings, enhancement of the quality of life, and cost containment (ANA, 1988,

p. 1). In addition, Stetler (1988) has indicated that the goals of case management include the proper allocation of resources for patient care, provision of continuity in care, and facilitation of patient discharge within an appropriate length of stay. Grau (1984), has stated that except for the financial management components, the case management process differs little from the nursing process.

It is generally agreed that case management is comprised of seven basic dimensions. These include:

1. Identification of the target population;
2. Screening/intake and eligibility determination;
3. Assessment;
4. Care planning;
5. Service arrangement;
6. Monitoring and follow-up; and
7. Reassessment (Weil & Karls, 1985).

Many terms are used to describe case management. These terms include care management, case coordination, continuing care coordination, service integration, continuity coordination and service coordination. Some hospitals, health maintenance organizations (HMOs), and the insurance industry use the term care management to describe what might be described more accurately as "utilization management," or the monitoring and control of service

utilization within a system or episode of care with the primary goal of cost control (Secord, 1987). Yet, there are some providers in these groups that have case management programs that go beyond utilization control, and monitor the patient following discharge from the hospital.

The number and classification of types of case management models vary. Desimone (1988) has identified seven models of case management including social, primary care, medical/social, HMO, independent, insurance, and in-house (intra-facility).

For the purposes of this study, four types of case management were found in the literature. The following discussion presents these types of case management models, which include hospital based case management, geriatric specialist case management, hospital and community based case management, and community based case management models.

Hospital-Based Case Management

Case management has been implemented in a number of ways in the hospital setting. Three models, the North Eastern, a discharge planner and arbitrator model, and a geriatric specialist model, are all based in the hospital setting, and will be described.

In some acute care sites, the North Eastern model of case management has been implemented as a system for nursing

care delivery, where the registered nurse provides patient care to one group of patients, and functions as a case manager for another group of patients for whom the nurse may or may not provide primary nursing care.

North Eastern Model

In the North Eastern model, an RN working in the intensive care unit (ICU) had a patient assignment, and had case manager responsibilities for patients who may or may not be in the ICU (Zander, 1988). The ICU nurse was responsible for providing direct care to the assigned ICU patients, plus providing case management services for the patients in the case load. The case manager also made phone calls and one home visit to the case managed patients following discharge.

The cost of care and length of stay were evaluated for the patients in this model. Case managers had a projected cost and length of stay determined for each patient, based on the DRG. Specific micro-costing data on this model of case management have not been published to date. One can only speculate that there is sufficient cost savings through the management of patient resources and decreased lengths of stay within some DRGs to justify the additional responsibility of the nurse who serves as the case manager. The case manager in this model was accountable not only for clinical nursing care, but also for the financial outcome of

each patient, as reflected in each patient being discharged within the allotted number of hospital days allowed for the diagnosis under the prospective payment system. (Zander, 1988; ANA, 1988).

Discharge Planner and Arbitrator

Logan Regional Hospital, a 159 bed acute care community hospital in Logan, Utah, developed a program that reported a 40% reduction in the difference between costs incurred by the patient and costs reimbursed by prospective payment systems for ten targeted DRG groups (Bair, Griswold & Head, 1989). In this model, implemented in 1988, the bedside RN was the discharge planner and arbitrator of utilization strategies. The program also incorporated a multidisciplinary review team to maximize utilization strategies and discharge planning. The quality assurance component of the program incorporated a process of ongoing evaluation of every aspect of patient outcomes. This includes patient outcomes from the community services received from all referral sources during the post discharge period.

The quality assurance process documented some negative patient outcomes in terms of finances, quality, or satisfaction in facilities accessed by Logan Regional Hospital's Care Coordination Program. Because of these findings, Logan Regional Hospital's Care Coordination

Program began working with community service organizations and resources, and incorporated these services into a coordinated system of care. Logan Regional Hospital specifically developed a process to foster an improved relationship with regional health agencies by agreeing on quality standards for the continued care of the patients. The Care Coordination Program implemented the following 6 principles to improve the quality of care received by patients through the agencies located in the community which they accessed for patients for follow-up care:

1. Continued development of constructive working relationships with the facilities and services they access.

2. Identified an accurate understanding of a facility's range of services and resources to avoid inappropriate referrals.

3. Developed shared standards.

4. Shared utilization strategies to maximize each facility's reimbursement potential.

5. Provided assistance to community health care facilities in identifying and developing additional services that meet patients' referral needs.

6. Established a mechanism for ensuring that a patient's perception of a transfer/referral to another facility constituted a natural continuum of care.

Geriatric Specialist Case Management Models

Geriatric Clinical Nurse Specialist Models

Neidlinger, Scroggins & Kennedy (1987), studied discharge planning for elderly patients using a gerontology clinical nurse specialist (GCNS) as the discharge planner, for a month in the Fall of 1984. A two group experimental study was used to evaluate a comprehensive discharge planning protocol for hospitalized elderly patients. The study included eighty patients, 75 to 94 years of age, admitted to non-intensive care units and having a hospital stay of more than 72 hours. A comprehensive discharge planning protocol was provided as the intervention to the experimental group. The protocol included assessment of the patients' health status, orientation level, knowledge/perception of health status, resource use pattern, functional status, skill level, motivation level, and sociodemographic data. The GCNS developed a discharge plan based upon the patient assessment, and then assisted in the coordination of services required.

Hospital costs were measured between the experimental and control groups. It was found that, on the average, the control group costs were $1,311 higher than the costs for the patients in the experimental group in 1984. This group difference was statistically significant (p=.036). The hospital costs were subtracted from the DRG payment. Gross

excess revenues for the control group averaged $283, while the experimental group averaged $1,194. The difference of $911 per patient totaled a $35,529 difference between groups. The differences in excess revenue were not statistically significant (Neidlinger, Scroggins & Kennedy, 1987).

The direct cost of the intervention by the Gerontological Clinical Nurse Specialist for the 3,120 minutes invested in implementing the comprehensive discharge planning protocol was $811.20, an average of $20.80 per patient in 1984. The direct cost of implementing the protocol was 2.3% of the $35,529 additional gross excess revenues obtained from the experimental group. The net savings were $34,707. The patients in this study were not followed after discharge, as would be expected in an expanded discharge planning or case management model (Neidlinger, Scroggins & Kennedy, 1987).

Naylor (1990) conducted a pilot study in which a randomized clinical trial was used with 40 elderly patients over 70 years of age. The discharge planning protocol developed by Kennedy, Neidlinger and Scroggins (1987) was used as the basis for the study. Using masters prepared gerontological nurse specialists, Naylor refined the discharge planning portion of the Quality Cost Model of Early Hospital Discharge and the Nurse Specialist

Transitional Care that was developed by Brooten, et al. (1988). Follow-up with the patients continued for two weeks post discharge. Naylor found statistically fewer hospital readmissions among patients in the experimental group. Naylor further found that the four to twelve week post discharge period accounted for most of the differences in rehospitalization rates. There was no difference found in the length of stay of the initial hospitalization between the two groups (Naylor, 1990).

Hospital and Community Based Models

Three models were identified as providing patient discharge services that began in the acute hospital setting and had services that continued into the community. These models included the Arizona model, Nova Scotia, Canada model, and Robert Wood Johnson Demonstration Project.

Arizona Model

In the Arizona model of case management, nurse administrators, educators, researchers, and clinicians functioned as case managers and had responsibilities for patients during and following hospitalization, after referring the patient to appropriate community services, based upon the patient's needs (Ethridge & Lamb, 1989). The cost outcomes of the first three years have been reported, including an evaluation of length of stay and in-hospital

acuity levels. A comparison of case managed and non-case managed patients with total hip replacements revealed that case managed patients had an average length of stay of 8.1 days in comparison to an average length of stay of 10.2 days for non case managed patients. A reduction in length of stay was accomplished even though case managed patients had a higher average acuity (4.9) than non case managed patients (4.4), on a scale of 0 to 8. Further information concerning the acuity system used was not provided. In patients with acute exacerbations of chronic illness, case management seemed to exert a financial impact through reductions in length of stay and acuity at the beginning of the hospital stay. The most notable results were those of patients with chronic obstructive pulmonary disease (COPD), who prior to the implementation of case management proved to be the greatest financial loss among Medicare patients. Following the introduction of case management, the length of stay for patients with COPD decreased 2.1 days, resulting in a reported savings of $1,552 per case in 1988 (Ethridge & Lamb, 1989).

Nova Scotia, Canada Model

An experimental study was conducted of 132 patients 75 years of age or older admitted to the Department of Medicine on an emergency basis between April and September of 1985. Sixty-six patients in the control group received standard

care from their attending physicians following hospital discharge. Sixty-six patients were randomly assigned to the experimental group and received follow-up by the geriatric service after hospital discharge. The intervention consisted of patient interviews by trained nurse assessors, and a mental status questionnaire if the patient could participate. All patients were classified based on the Geriatric Status Scale. Patients in the experimental group were seen and treated by the Geriatric Consultation Team (GCT), which included a specialist in geriatric medicine, a nurse coordinator, an occupational therapist (OT), a physical therapist (PT), a social worker (SW), a dietitian and a representative from pastoral care. Patients were seen daily Monday through Friday during hospitalization, either by the nurse coordinator or the MD, with team rounds once a week. The focus of the program was to address functional problems and to provide post discharge follow-up. At the time of discharge, the assessor reinterviewed each patient, collecting the same data as at the initial assessment.

Post discharge follow-up continued by either phone or written contact to a total of fifty-six patients in each group. In addition to the usual post discharge care provided by the family physician, patients in the experimental group were also followed and received interventions provided by the GCT. Thirty-two received

written or telephone follow-up to either the patient or the involved caregivers who were contacted by phone at three, six and twelve months following discharge. Ten people were seen in the Geriatric Outpatient Clinic. Nine received a home visit by the physician and either the nurse coordinator or the assigned O.T. Three were admitted to the Geriatric Day Hospital, and two to the Geriatric Inpatient Unit.

Results of the study suggest a statistically significant longer survival rate among patients in the experimental group, up to approximately 180 days following discharge. One year following hospital discharge there was no statistically significant difference between the two groups. GCT patients showed an improved survival during the first year, improved functional capabilities and a trend toward decreased reliance on hospital and nursing homes (Hogan & Fox, 1990).

Robert Wood Johnson Foundation Demonstration Project

A demonstration project funded by the Robert Wood Johnson Foundation established 24 hospital-based case management programs in the United States. This project was divided into two parts, the first a survey, and the second part case studies of 16 project sites. The survey was conducted in 1987 and again in 1988.

An evaluation of those projects collected qualitative and quantitative information, using the hospitals as the

unit of analysis. Survey questions requested information on the project goals, total project activities and services, organizational location, staffing patterns, the features and tasks of case management, hospital financial information, and the numbers and characteristics of case management participants (MacAdam, Capitman, Yee, Prottas, Leutz & Westwater, 1989).

In addition, the evaluation included 16 case studies that focused on analyzing the strengths and weaknesses of selected approaches to hospital provision of long-term care services. Interviews were conducted with key hospital and project staff (MacAdam, et al., 1989).

Several problems were encountered in the evaluation of the project. Total cost data for case management and most of the other services were not available in almost all of the sites due to the hospitals using a variety of cost centers in charging project services. Measurement error occurred in determining the functional impairments of clients because the projects collected assessment data on clients at different times.

Only two sites, Massachusetts General and Parkland Memorial Hospitals, implemented research protocols. The research designs limited the number of clients admitted for services. All other projects served as many elders as possible. The hospital-based case management projects

encountered several difficulties including the problem of using vaguely defined targeting criteria, being poorly linked to medical care, and an inability to document changes in outcomes as a result of the provision of case management (MacAdam. et al., 1989).

Conclusions drawn from the demonstration project show that case management can take a variety of forms, ranging from post-acute medical management services to planning community-based care for potential long-term care users. In the post-grant period, none of the 22 hospitals that completed the study planned to maintain the same level of case management services. Nine other hospitals reported that their services were 50% or less of those provided during the demonstration period.

Recommendations for future research included concentration on documentation of the cost and quality of outcomes of various forms of case management, including transition management, and closer linkages to medical care for elders with chronic impairments (MacAdam, et al., 1989).

Community-Based Case Management Models

Proponents of case management programs in which services begin when the patient is discharged and are provided exclusively in the community setting, argue that discharge planning and case management should be two

separate and distinct functions, with separate staff, procedures, and accountability. Proponents of this model argue that the purpose of case management is much broader than discharge planning, and includes the planning of alternatives to institutionalization, to assure cost effective care, provide access to comprehensive care, coordinate services, and improve functional capacity among the clients served (Simmons & White, 1988).

Studies of models of expanded discharge planning and case management are described in the literature. The models studied all fall somewhere along the discharge planning/case management continuum. Two models of community based case management include the Denver, Colorado model and Indianapolis, Indiana model.

Denver, Colorado Study

A study was conducted in 1989 to evaluate the use of a counselor in facilitating hospital discharges among patients from five metro area hospitals in Colorado. In a sample of 1,040 persons 75 years old or older, eight weeks after discharge from the hospital, the use of a counselor as an intervention system resulted in fewer deaths, a 21% decrease in the number of discharged individuals remaining in nursing homes, and an increase in those persons going home rather than to an institution (Denver Regional Council of Governments, 1989). This study involved three components;

(1) descriptive data on persons over 75 years admitted to five hospitals in the metropolitan Denver area, (2) the effects that a specialist counselor had on the discharge practices of the hospitals, and (3) training and information provided to 140 hospital discharge planners in the area, and training effectiveness. Each participant of the study was phoned at two weeks and eight weeks following discharge from the hospital to identify the number of doctor and hospital visits the patient had made, any housing changes that occurred during that period, and the type of living arrangements for the patients eight weeks following discharge. The specialist counselor's discharge practices did not differ from that of other discharge planners, but the capacity to follow patients for two months led to changes toward more independent housing. The researchers concluded that this discovery supports the trend toward case management services and in-home services, particularly toward the high-risk/high-cost cases (Denver Regional Council of Governments, 1989).

Indianapolis, Indiana Study

In a randomized control study conducted in 1985 by Weinberger, Smith, Katz & Moore (1988), in Indianapolis, 1,001 patients newly discharged from the hospital setting were stratified (low, medium, or high) by risk of readmission and assigned to the intervention or control

groups. Outpatient nurses monitored patients in the intervention group closely. Patients in this group received appointment reminders, and missed appointments were rescheduled. The cost of the intervention was $5.20 per month per patient. High-risk patients in the intervention group were found to have significantly higher outpatient costs, $131/month compared to $107/month, (p=.02), than high risk patients in the control group, but lower inpatient costs, $535/month compared to $800/month (p=.02), than high-risk patients in the control group. The reduced inpatient costs in the high-risk intervention group were attributed to shorter, less intensive hospital stays. Similar results have been found in the Arizona Model of case management (Ethridge & Lamb, 1989).

It is difficult to analyze the potential cost-effectiveness of case management programs without also considering the quality of care provided. It is not difficult for an administrator in health care to cut costs and operate within a tight budget, but to cut costs and continue to provide quality care presents the challenge. An exploration of the literature on quality of care is an essential component in the discussion of discharge planning and case management.

QUALITY OF CARE

The ability of acute care facilities to define and provide quality care to patients has long been a challenge for the health care industry. As early as 1912, the Third Clinical Congress of Surgeons of North America, which later evolved into the Joint Commission, resolved that hospitals with high ideals should have proper recognition, and those hospitals with inferior standards should be stimulated to improve the quality of their work (Davis, 1960). The result of these efforts was believed to be a way of providing patients with optimum treatment, and as a way to recognize institutions devoted to the highest ideals of patient care (Davis, 1960).

Definitions of Quality

Jennings and Meleis (1988) identified quality of care in the current cost containment environment as an agenda that needs theoretical development. The first step in this process is to define what is meant by quality. Quality is usually presented as a perception or feeling, and nursing executives are often placed in the position of defending quality without being able to quantify or define quality.

Webster's dictionary (1984), defines quality as, "The degree of excellence which a thing possesses; excellence; superiority" (p. 1161). Quality has also been defined as conformance to requirements (Gross, 1986). A frequent

occurrence in health care has been a lack of definition of quality, and separate evaluations of the costs and quality of care (Larson & Peters, 1986).

Donabedian (1969) reported that it is difficult to define quality of health care, but that it can be promoted by evaluating process and outcome variables. In 1980, Donabedian stated that quality of care cannot be defined without taking into account issues of cost, and in 1984, he wrote that quality of care depends on the appropriate objectives of care and then on ways to attain them.

Crosby (1979) has defined quality in industry as "Conformance to requirements" (p. 15). Crosby believes that requirements must be clearly stated so as not to be misunderstood. Measurements are taken continuously to determine conformance to the requirements. Non-conformance to the stated requirements is then classified as the absence of quality. Quality problems are identified as non-conformance problems and quality becomes definable (Crosby, 1979).

Although Crosby's definition of quality is directed at industry and not health care, parallels can be made between the services provided to consumers of automobiles and consumers of health care. Identified requirements are different, but conformance to the appropriate requirements can be measured (Olsen & Lyon, 1989).

More researchers and healthcare organizations are searching for a practical definition of quality. Some believe quality can be ensured by reducing the use of unnecessary healthcare services, while others believe it can be ensured by setting performance standards for providers. Many experts are listening to consumers' demands for quality health care, and are exploring ways to measure patients' health status and incorporate this information into quality standards (Graham, 1987). Researchers focus on measuring quality of care, independent of the hospital's acceptable standards in the organization-wide quality assurance program.

Several factors comprise the concept of quality of care. These factors include standards of care, ethics and values, safety, prevention, costs, nursing intervention, patient satisfaction, critical thinking or reasoning, utilization patterns, and monitoring. All of these factors fall within the scope of the quality assurance program. The amount of influence placed on any portion of the quality assurance program is determined by hospital administration, nursing, medical staff, and consumer input (Olsen & Lyon, 1989).

In an attempt to solve the problem of evaluating the quality of care provided to hospitalized patients due to the problem of unclear definitions of quality across

institutions, Donabedian (1969; 1987) developed a model that divides Quality Assurance into three components: structure, process and outcome. These components are generally accepted as a conceptual model for medical and nursing practice, and often are used as a guide for research. These components of quality will be used for the conceptual framework of quality for this study.

Structure. Structural criteria refer to clearly definable and measurable phenomena relating to human, organizational, environmental, and physical resources and standards of practice. Structural issues include educational preparation of staff, and the hospital accreditation status. The more notable structure studies that have been done are those that have measured financial resources or cost (Donabedian, 1969; 1987).

Process. Process criteria focus on what professionals do, their conduct and interaction with patients, and the activities, either direct or indirect, used in the delivery of health care. Measures of process focus on what is done for the patient, and are important factors in determining the quality of care provided. Process measures do not, however, measure the patient's progress or outcome (Horn & Swain, 1976).

In regard to the relationship between process and outcome, Donabedian (1987) has said that there is a causal

linkage between process and outcome. Because of this linkage, either process or outcome can be used to assess quality (p.77). Donabedian (1987) further proposes that the measurement of process or outcome should be based on the availability of information, ease of measurement, or the purpose of collecting the information.

Process measures are more timely, sensitive, and specific. Outcomes are delayed, less sensitive, and less specific (Donabedian, 1987). Outcomes are more comprehensive to consumers. Although consumers are not able to assess the technical quality of the process of care, they are quite sensitive to the finest nuances of the interpersonal relationship (Donabedian, 1980). Donabedian (1987) has further proposed that researchers who use outcome as a measure suffer in not being able to tell us precisely what may have gone wrong, and in whose hands (p.77).

Outcome. Outcome criteria focus on the consequences of patient care. An example of an outcome measure is the measurement not of what a nurse taught a patient, but what the patient learned from the teaching. It often is difficult to identify specific contributing causes for patient outcomes. Patient outcomes are comprised of contributing influences of all health professionals who contribute to the patient's care, including physicians, therapists, and dietitians (Horn & Swain, 1976).

Often the cost and quality outcomes for patients older than sixty-five years are not measured by acute care hospital staff. It has been said that the quality of care provided to the elderly needs to be improved (Fink, Siu, Brook, Park & Solomon, 1987). Studies of the quality of patient outcomes since the introduction of PPS have begun to emerge in the literature.

RAND Corporation. The RAND Corporation sponsored a study that was funded with federal money, which was recently published. The study sample included 14,012 Medicare patients with five physical conditions including:

1. Congestive heart failure;
2. Acute myocardial infarction;
3. Pneumonia;
4. Cerebrovascular accident;
5. Hip fracture.

Patients within these five disease groups were compared for the level of impairment at discharge before and after the implementation of the Prospective Payment System (PPS). Data were collected from hospitals in five states (Kahn, Rubenstein, Draper, Kosecoff, Rogers, Keeler & Brook, 1990). Patient outcomes, pre and post PPS were compared after adjusting for sickness at admission (Kahn, et al, 1990). As Donabedian (1987) has suggested in the literature, process-outcome links were established, and better process of care was shown to be associated with better outcomes.

Impairment at discharge was defined as follows:

1. Instability, which was described as including problems that occurred before patient discharge that probably could have been corrected with medical intervention;

2. Sickness, which was defined as any problem at the time of patient discharge whether it was new or potentially correctable; and

3. Abnormal last laboratory values.

The results of the study showed that instability at the time of patient discharge significantly predicted post-discharge death. One example provided was that at 90 days post-discharge, 16% of patients discharged unstable were dead, compared with a 10% death rate for patients discharged stable ($p < .01$). The conclusion drawn was that after PPS there was an increase in patient instability, primarily among patients discharged home. Before PPS, 15% of patients discharged home were unstable, and after PPS, 18% were unstable ($p < .01$), a 22% relative change. The researchers concluded that patients are being discharged from the hospital setting quicker and sicker under the PPS system, and recommended that efforts to monitor the effect of PPS on health should be implemented (Kosecoff, Kahn, Rogers, Reinisch, Sherwood, Rubenstein, Draper, Roth, Chew & Brook, 1990).

The results of the RAND study provide further justification for the implementation of expanded forms of discharge planning models or case management that would

specifically monitor patients who are unstable following discharge. Appropriate referral of the patients' medical care and other services might prevent unnecessary deaths.

It is not enough to simply monitor the cost of care provided. Measurement and evaluation of patient outcomes is important in order to draw conclusions of the cost-effectiveness of patient care.

The Role of Joint Commission in Measuring Quality

In the 1970s, the Joint Commission on Accreditation of Hospital (JCAH, now JCAHO) recognized the need to evaluate the quality of and appropriateness of care provided. Initially, JCAH established medical audits as a methodology for measuring the quality of care delivered to patients. Medical care was reviewed according to specific criteria. The standards, however, did not suggest any specific methodology by which care should be evaluated. Standards for nursing were expanded to include five standards that focused on nursing direction and staffing, organization and administration, policies and procedures, nursing care plans, and educational programs (Fromberg, 1986).

In 1975, hospitals were required by JCAH to demonstrate that the quality of patient care was consistently optimal by continually evaluating care through reliable and valid measures. Health professionals were required to establish or adapt explicit, measurable criteria. Methodologies for

retrospective, outcome-oriented audits emerged (JCAH Supplement, 1975).

In 1979, JCAH introduced new standards which required that studies be performed to review and evaluate the quality of care. Greater flexibility was allowed in approaches to problem identification, assessment, and resolution. The focus was problem oriented, focusing on problem identification, resolution, and documentation of the process. The goals to be achieved included: (1) Problem identification, (2) Prioritization of the problem, (3) Use of criteria, (4) Implementation of a corrective action plan, and (5) Follow-up to ensure resolution (Decker, 1985).

In 1984, the Quality Assurance Standard for hospitals was again revised. An organization-wide program for QA replaced the previous discrete and self-contained activities and previous problem-focused approach. Standards that specified systematic monitoring and evaluation of important aspects of patient care and service were required. The new standards stressed actions taken by staff in the institution, and evaluation of the effectiveness in improving patient care and resolving identified problems. The nurse administrator was identified as the individual responsible for assuring that the process is implemented. Currently, JCAHO (Joint Commission on Accreditation of Healthcare Organizations, formerly JCAH), prescribes the

following QA activities for the acute care setting:

1. A planned and systematic process for monitoring and evaluating;

2. Regular data collection to accomplish monitoring and periodic assessment to evaluate the data;

3. Action and evaluation of action to take advantage of identified opportunities to improve care;

4. Documented reports of findings;

5. Documented reports of actions;

6. Annual reappraisal of hospital's quality assurance program which includes evaluation of nursing quality assurance activities (JCAH, (1987).

Joint Commission's Agenda for Change

In 1990, JCAHO changed to a new evaluation methodology which is focused on clinical and organizational performances. The emphasis on outcome versus process indicators is expected to depend on the specific clinical specialty being addressed. For example, surgical areas have been identified as lending themselves better to procedure-specific clinical outcome measures, and for non-surgical areas, process measures seem to merit more emphasis (Lehmann, 1987).

The Joint Commission's stated purpose for this change is to eventually develop clinical indicators in approximately 25 specialty areas. Performance information will be used to build a database of comparable data, so that

an organization will be able to view its performance in various contexts, such as organizations of the same size providing care to similar patient populations in a geographic region.

The establishment of quantitative measures is not JCAHO's ultimate goal of using clinical indicators, but is to serve as a guide for health professionals conducting problem analysis and peer review. The purpose of the measures is purported to be chiefly to flag possible problems in performance. The organization will then be expected to: (1) analyze the possible problems to determine whether they actually are problems; (2) identify quality of care problems, and (3) address the problems through appropriate action. Follow-up monitoring will be required to assure that the action has solved the problem. These steps in problem resolution are part of the current JCAHO standards for quality assurance.

The Joint Commission intends to incorporate severity of illness or case complexity adjusters into the measurement process. Not all patients experience problems because the care delivered is faulty, and the outcomes in severely ill patients are less likely to be optimal than for other patients. As a result, the Joint Commission plans to develop what is hoped will be an effective formula adjustment to reduce the number of false results concerning

clinical performance (Rowland & Rowland, 1989).

American Nurses Association Role In Classifying Patient Outcomes

The American Nurses Association (ANA) is actively involved in the development of outcome criteria that will be used to measure the outcome of nursing care and health care (Lang & Marek, 1990). Patient outcomes have been defined and classified by a variety of researchers, based upon the specific clinical setting, either acute care, home care or long term care facilities. Specific outcome criteria that have been identified and measured has varied, based upon the type of setting studied (Lang & Marek, 1990). Both the ANA and nursing specialty organizations have developed sets of standards for nursing practice, which falls within the process criteria for quality assurance measurement. Process standards for nurses or social workers functioning in the roles of discharge planners or case managers have not been developed. Standards for health care staff in these positions would be helpful in establishing criteria for measuring the quality of services provided to the patients served. Many hospitals put minimal financial resources into the discharge planning service as these staff are not direct patient care providers, and are often viewed as overhead expense that is expendable. Frequently the staff who are recruited for discharge planning positions lack the

education and experience required to make them effective in the role of discharge planner.

Discharge planning, nursing, case management, and quality literature frequently refers to the difficulty that hospitals have in keeping costs under their reimbursement levels. Added to this problem is the increased competition for both inpatient volume and outpatient revenue (AHA, 1989), and the need to maintain quality patient outcomes (Guterman & Dobson, 1989). Because of the focus on economic issues and the quality of patient outcomes, the theoretical framework for this study will consist of economic and quality models.

THEORETICAL FRAMEWORK

Two theoretical frameworks will be used to guide this study. These include economic theory as it relates to health care, and a systems theory of quality of care. Because of the strong monetary motivation for hospitals to decrease costs and the concern for maintenance or improvement of quality of patient outcomes, it is important to examine both economic and quality theories.

Economics

Because the study will be describing the effects of reimbursement under the current PPS system for Medicare patients, financial information including patient lengths of stay and readmission rates, economic theory will be used as a basis for the study.

Spending for health amounted to 11.1% of the gross national product (GNP) in 1988, more than twice the share that it occupied in 1960. In 1960, three quarters of all health care spending was from private sources. Consumers paid approximately fifty% of expenses out-of-pocket. By 1988, the share financed by private sources had dropped to 57.9%, and health insurance had become the predominate payer. Out-of-pocket spending had dropped to 21% of all health expenditures (Office of National Cost Estimates, 1990). The increase in health care spending and the shift to government and other third party payers has been the

incentive for changes in health care reimbursement (AHA, 1989).

Unlike other businesses and industries, hospitals do not follow the normative market equilibrium theory. Because of this, several other economic theories have been introduced in an attempt to explain hospital cost inflation. Three such economic theories include the theory of demand-pull inflation, cost-push inflation theory, and Berry's model of hospital cost inflation.

Market Equilibrium. The standard economic analysis of equilibrium price and output determination examines the relationship between supply and demand (See Figure 2). Normative theory predicts that an equilibrium of price and output will occur at point E, the intersection of supply and demand curves. If the price exceeds P1, the quantity supplied will increase, and will exceed the quantity demanded, resulting in a surplus.

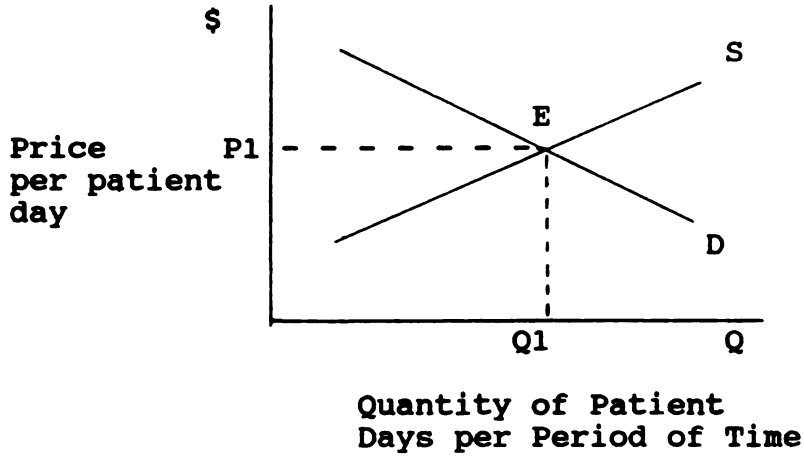

Figure 2. Market Equilibrium
Source: Rosko & Broyles, 1988.

The surplus will then fall until equilibrium is again restored at point E. If the price falls below P1, a shortage will occur and consumers will bid prices until P1 is reached.

This market supply curve is based on the assumption that the products or services it reflects are homogeneous. The homogeneity assumption is violated in the health care industry. In the prospective pricing system, the assumption is made that hospital output consistently corresponds to the 471 DRGs (Rosko & Broyles, 1988). But the demand may increase or decrease, and the price will remain stable without influencing the services available.

Demand-Pull Inflation. The quantity of hospital care demanded per unit of time is a function of the price of hospital care; the price of complements; the price and availability of substitutes; income; the number of consumers in the marketplace; and tastes and preferences. With the exception of the price of hospital care, the price of complements or the availability of substitutes, an increases in any determinants of demand will shift the market demand curve up from D1 to D2 (See Figure 3). The implication is that, at the same price level, consumers are willing to purchase more hospital care. If the supply curve does not shift, normative economic theory predicts that an increase in demand will cause the equilibrium market price to increase from P1 to P2. This phenomenon is termed demand-pull inflation.

The demand-pull theory does not apply to the price of hospital care. The demand for hospital care is somewhat insensitive to price. If the price of hospital care increased, demand would be expected to decrease. Yet, from 1965 to 1980, hospital costs and patient days both increased. This is due in large part because insurance companies and other third party payers began to pay a larger portion of hospital bills, and consumers of health care paid less. Though hospital cost per admission increased from $346 to $2,126, direct patient payments (in 1967 dollars),

rose only $3.00, from $61.25 to $64.17. Patient days per thousand population rose about 14% during this period, which caused an increase in expenditures for hospital services (Rosko & Broyles, 1988).

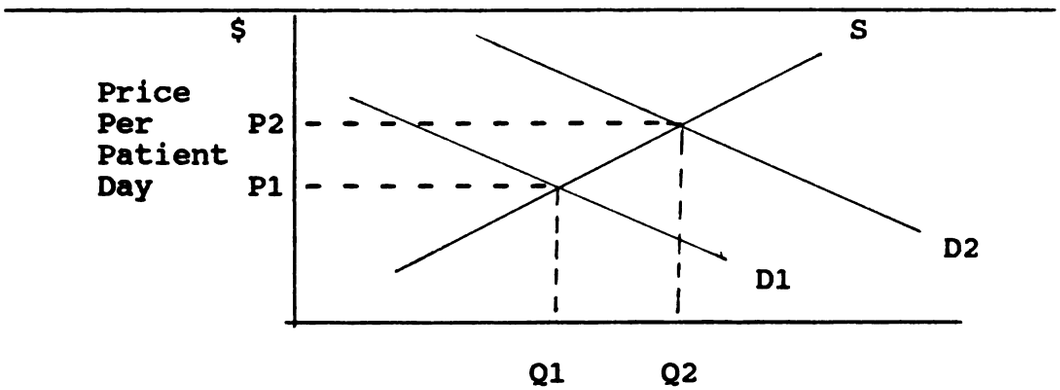

Figure 3. Demand-Pull Model of Hospital Cost Inflation
Source: Rosko & Broyles, 1988.

Cost-Push Inflation. In this model, as market price increases, an increased quantity of services will be supplied. If prices increase or inputs become less productive, the supply curve will shift up and to the left from S1 to S2. If demand remains constant, the shift in the supply curve will increase the equilibrium price from P1 to P2. This type of inflationary pressure is called cost-push. (See Figure 4).

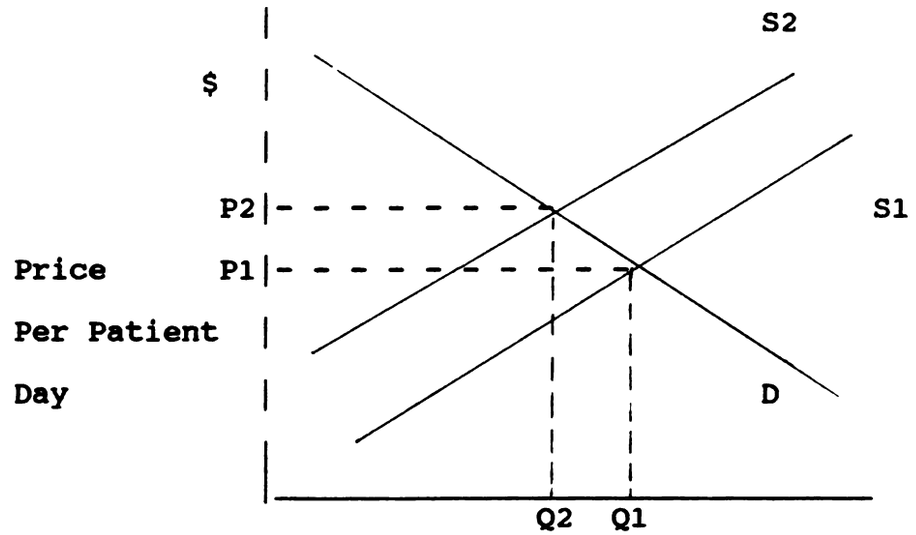

Figure 4. Cost-Push Model of Hospital Inflation
Source: Rosko & Broyles, 1988.

This phenomenon occurred in the 1960s and 1970s when hospitals received reimbursement retrospectively for the hospitals' charges for services provided. An over supply of hospital beds resulted. Now, under prospective reimbursement and preferred provider systems, the hospitals are reimbursed a predetermined amount, despite hospital costs for providing care. Under this system, the price of reimbursement for care provided does not change, despite demand.

Berry (1976) has developed a conceptual model that integrates the demand-pull and cost-push theories (See Figure 5). In this model, an increase in demand leads to

increased prices, which leads to an increased operating surplus. The increased operating surplus is used to hire additional inputs (staff) per unit or output, or to increase pay inputs (staff), which then raises costs. In normative theory, there would be an increase in price to reduce the demand for hospital care, which would serve to reduce inflationary pressures. In the health care industry, a combination of insurance coverage for hospital expenses and consumer insensitivity to price changes for many hospital services insulates demand responses from price changes. Price increases can be expected to increase insurance coverage, which then removes utilization considerations even further from price changes (Feldstein, 1979).

$\Delta \uparrow$ Demand -> $\Delta \uparrow$ Price -> $\Delta \uparrow$ Surplus ->

$\Delta \uparrow$ Inputs/Output -> $\Delta \uparrow$ Cost

Figure 5. Berry's Model of Hospital Cost Inflation
Source: Berry, 1976.

Economics of DRGs. With the introduction of DRGs, the health care industry was placed into a competitive market-driven economic model. As previously discussed, under the DRG system, hospitals are reimbursed a predetermined amount of money by Medicare, based on each patient's diagnosis. The hospital has an incentive to reduce the length of stay

and to reduce the number of tests and procedures performed on patients. If patients are discharged earlier than the DRG average and with fewer tests done and thus lower hospital costs, the hospital benefits financially. Since DRGs were introduced, the average patient length of stay had decreased two days (AHA, 1989). (See Figure 6).

Prospective Reimbursement (Medicare)	---------->	Length of Stay Hospital Admissions Outpatient Services Tests & Procedures Hospital Efficiency

Figure 6. Hospital Medicare Patient Services Under Prospective Reimbursement

Because of prospective reimbursement in inpatient reimbursement rates, hospitals have enhanced their utilization review activities and have expanded outpatient services. Hospital costs can be reduced by decreasing the average patient length of stay, and by decreasing the readmission rates. Of all of the Medicare patients who are readmitted to the acute care hospital within less than 31 days of discharge, 25% of the cases are reviewed by the Professional Review Organization. Payment for the subsequent hospitalization of those cases reviewed is approved or denied, based on the outcome of the review (Medicare P.R.O. Manual, 1990).

Quality

The incentive that hospitals have to decrease the patient length of stay has raised many questions about the quality of care that is being provided to Medicare recipients and to other consumers of hospital care. As previously noted, the RAND study results show that the "quicker and sicker" phenomenon does exist. Patients are being discharged earlier and in physical conditions not always as stable, as was the common practice before the implementation of DRGs. This raises questions concerning the quality of care that is being provided, and whether hospitals are cutting costs in an attempt to achieve financial security at the expense of patient stability, and thus jeopardizing patient outcomes. Intervention by professional staff following discharge, especially for high risk patients as in expanded discharge planning or case management services, is one solution to the cost-quality problem. Patient lengths of stay can be safely reduced, thus reducing hospital costs, and patient status can be monitored with appropriate intervention and referrals made for health care services, which helps to ensure quality outcomes.

Donabedian's quality of care model (1969; 1987) and the model for quality assurance proposed by Lang (1976), are the basis of the quality theory utilized in this study. Donabedian's theory consists

of three primary components, structure, process, and outcome, as described earlier in the literature review section. Lang (1976) includes structure, process, and outcome components in her model of quality assurance. Lang's model (see Figure 7) consists of five components. These components include:

1. Clarification of values.
2. Establishment of outcome, process, and structure standards and criteria of nursing care.
3. Assessment of the degree of discrepancy between the standards and criteria.
4. Selection and implementation of an alternative for changing nursing practice.
5. Improvement of nursing practice. (Lang, 1976, p. 46).

This model is represented in Figure 7, and has been used widely by nurses in practice, education, research, and administrative roles.

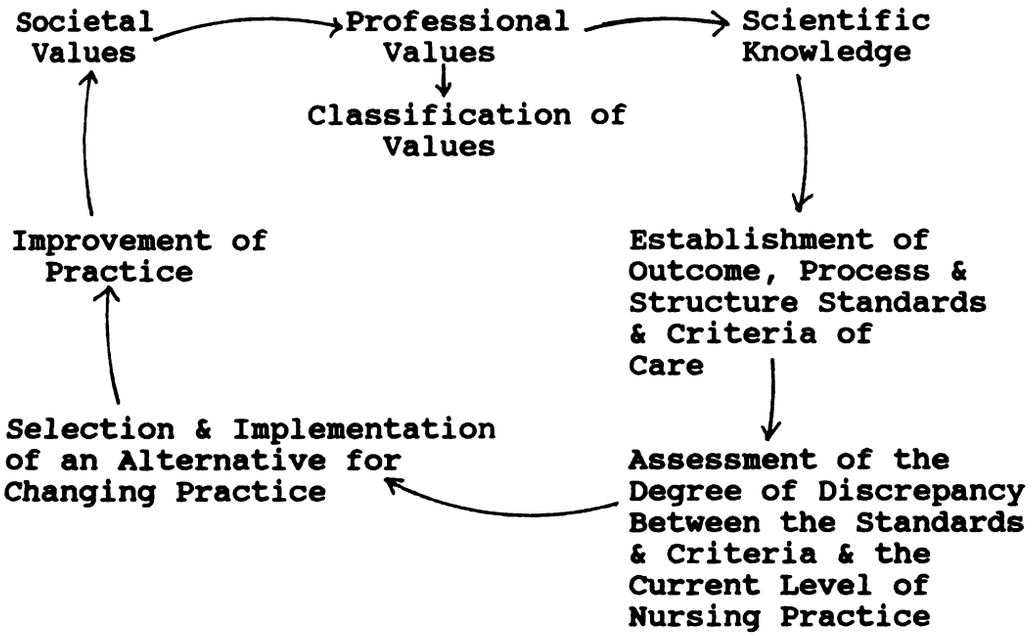

Figure 7. Model for Quality Assurance
Source: Lang, 1976.

This model will be used for the study of discharge planning and case management as performed by nursing staff or social work staff functioning in the roles of discharge planners and case managers.

Statement of Research Questions

The research questions for the survey section of the study are (1) Which hospitals in California provide traditional discharge planning, expanded discharge planning or case management services, and how, why and by whom are the services provided? (2) To what extent are expanded discharge planning and case management programs being

developed by hospitals in California?

The research questions for the second part of the study, which will consist of focused telephone interviews of key hospital staff, are (1) How do expanded discharge planning and case management programs differ from traditional discharge planning?, (2) How and why are these programs being developed and evaluated by hospitals?, and (3) Have expanded discharge planning or case management programs decreased patient readmission rates?

It is not currently known what types of discharge planning services are offered by hospitals in California. No information is available on which hospitals contact patients following discharge from the hospital, and if patients are contacted, which patients are contacted, and what the contact consists of and the length of time that patients are monitored following discharge. Many hospitals call their discharge programs case management, but it is not know what similarities or differences exist between the programs, or if the case management programs are simply traditional discharge planning programs with a new name. This descriptive study is necessary as an initial step in the identification, classification and description of the discharge planning programs in hospitals in California. Information from this study will be used to identify hospitals with expanded discharge planning services and case

management programs for further study of the cost effectiveness of the programs, and quality of patients' outcomes compared to traditional discharge planning programs.

Relationship of Theory to Research Questions

Of special importance to this study is the relationship of the economic and quality theories to the research questions (Figure 8). Assumptions were made during the planning of the methodology for this study which included the following:

1. An increase in the amount of technological developments has resulted in an increase in the demand for the high tech, high cost health care procedures.

2. The demand for technological advances have contributed significantly to the increased cost of health care as described by Berry (Figure 5).

3. There is an incentive for hospitals to develop and implement innovative programs in an attempt to decrease hospital costs by reducing patient lengths of stay and readmission rates, which is driven by the change in the reimbursement structure of third party payers, specifically Medicare and private insurance companies.

4. Two examples of innovative programs that were believed to exist included models of expanded discharge planning and case management.

5. Assuming these models existed in California, they were identified for further description in this study, as reflected in the research questions.

6. Both expanded discharge planning and case

> management programs are influenced and guided by structure, process and outcome criteria as described by both Donabedian (1987) and Lang (1976).

The study was designed to begin testing these assumptions through the identification of hospitals that offer expanded discharge planning and case management programs. The structure and process criteria of the programs were explored, including the location of the programs, and discussion of the educational preparation of the staff who provided the services. Additionally, outcome criteria were identified for the programs through the telephone surveys, in which the program directors were asked about the evaluation procedures that were in place, and what specific impact the programs had on patient length of stay and readmission rates.

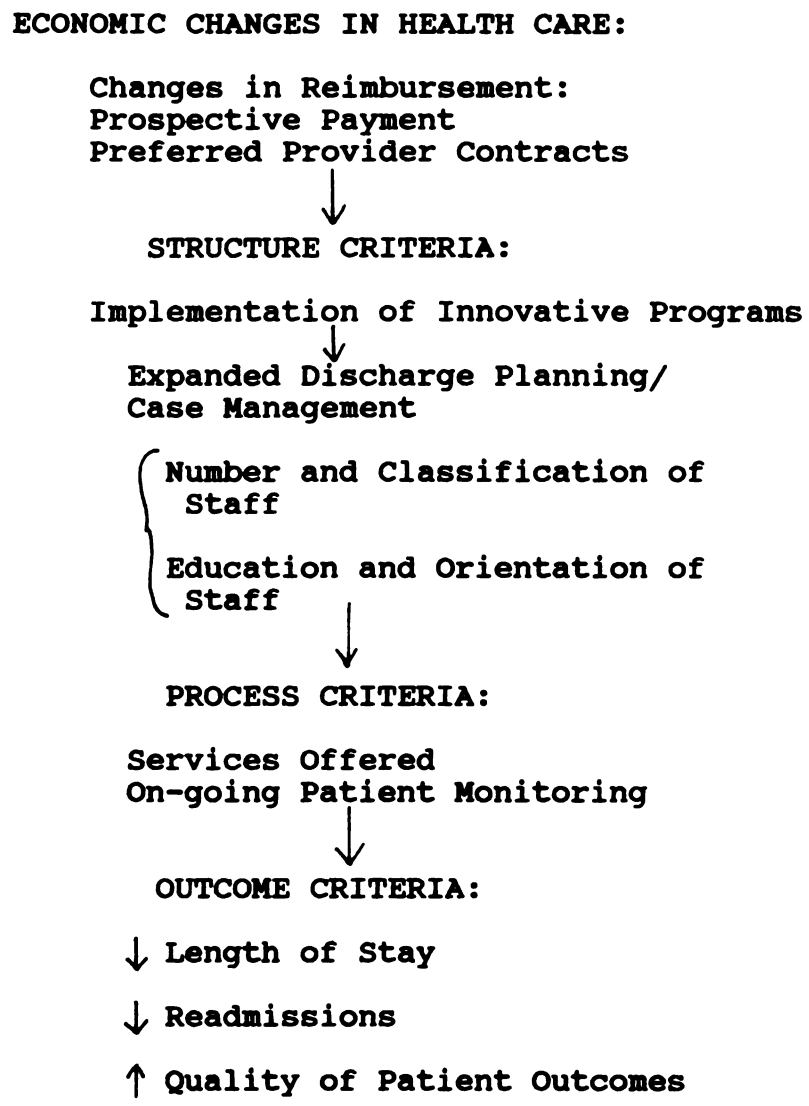

Figure 8. Relationship of Economic Changes to the Development of Innovative Hospital Programs.

CHAPTER THREE

METHODOLOGY

Methodology

In the following section the methodology for this study will be described. This will include the research design, sample, instrumentation, pilot study, process of data collection, and data analysis.

Research Design

A descriptive study was necessary because of the lack of available information on hospital discharge planning services, and a lack of prior empirical testing of the types of services that are provided. The aim of this study was to survey all acute care hospitals in California that have medical/surgical services as the primary patient service, and to identify and describe the type of discharge planning services that are offered. Hospitals that provide traditional discharge planning, expanded discharge planning and case management services were identified. Additional information on services provided by hospitals with expanded discharge planning and case management services was obtained through telephone interviews with the Directors of the Discharge Planning or Social Services.

Sample

The survey was mailed to the Directors of Discharge Planning in 428 acute care hospitals in California that are licensed to provide acute care services to adult

medical/surgical patients. The list of hospitals eligible for inclusion in the study was obtained from the list of California hospitals in Licensed Services and Utilization Profiles, Annual Report of Hospitals, (Office of Statewide Health Planning and Development, OSHPD, 1988). The sample included all hospitals in the sample frame. Hospitals that were excluded from the study included those that specialized in psychiatric and chemical dependency services, state hospitals, military and Veterans Administration hospitals, rehabilitation hospitals, non-acute care hospitals, and pediatric specialty hospitals.

Data Collection Methods

Instrument

A survey instrument was developed by the author, and was influenced in part by the questions asked by the Robert Wood Johnson surveys of hospital-based case management programs (MacAdam, et al, 1989). The survey consisted of 44 questions in two sections. The first 24 questions asked about discharge planning services and 16 questions focused on case management services (See Appendix A). The first page of the survey contained background information on each hospital. Each hospital's name, location, bed size, number of medical/surgical beds, profit status and average length of stay were typed onto the cover page for each hospital included in the study. Each of the hospital staff people

who completed the survey was asked to check the information provided for accuracy, and to write in his/her name, title, phone number, and the percent of Medicare patients admitted to the hospital. Background information on the hospitals was obtained from the California State Licensed Services and Utilization Profiles book (OSHPD, 1988).

The discharge planning questions asked for the number of discharge planning employees, number of full time equivalents (FTEs), and educational preparation for each discharge planning employee. The amount of orientation discharge planning employees newly hired to the hospital received was asked, and the amount of orientation that staff who transferred into the discharge planning department was also asked. One question asked for a percentage breakdown of time spent by the discharge planning staff doing discharge planning activities, utilization review, quality assurance or other activities. The average number of patient contacts made each week by each discharge planner was also asked. Another question requested a percentage breakdown on which activities the discharge planners provide to the patients.

The discharge planning directors were asked whether follow-up contact was made with patients after discharge in the form of phone calls, home visits or facility visits. If services were offered following discharge, the percentage of

patients who received each service was asked. The average length of time following hospital discharge that contact is maintained with the patient was also asked. Each participant was asked if the hospital offered case management, if a case management program had been considered, and if the results of the survey could be reported with the hospital identified.

The case management questions were designed to describe the seven dimensions of case management:

1. Identification of target population;
2. Screening and intake;
3. Assessment;
4. Care planning;
5. Service arrangement;
6. Monitoring and follow-up, and
7. Reassessment (Weil & Karls, 1985).

Hospitals that indicated that they offered case management services were asked to complete the questions pertaining to case management. The case management questions were as follows:

The first question asked the year that case management services were initiated. One question asked whether case management was part of the discharge planning department, or a separate function with different staff. Another question asked if case management services were provided to patients

instead of discharge planning or in addition to discharge planning. The same questions were asked that had been included in the discharge planning survey regarding the number of staff, number of FTEs, amount of staff orientation, educational preparation, and case manager activities.

Additional questions asked how case management was funded in the hospital, the criteria used to determine the need for case management services, and how patients were referred for case management services. Respondents were also asked why case management was implemented in their facility, what information was collected on each patient, and if they were willing to have results of the survey reported with the hospital identified.

Instrument Development

During the instrument development phase, the survey was sent to three directors of discharge planning departments in acute care hospitals for review and comment, and sent to a consultant in case management and long term care, to validate the content of the survey and thus minimize threats to the content validity of the survey. The Director of Aging and Mental Health for the California Association of Hospitals and Health Systems (CAHHS, formerly the California Hospital Association, CHA), the state hospital association, was also consulted, along with the Director of Technical

Publications, regarding content of the survey. Changes were made in the structure and content of some of the survey questions as a result of input from these experts. The survey received endorsement by the California Association of Hospital and Health Systems (CAHHS), and the endorsement was published in the Association's weekly update just prior to initiation of the study.

The telephone survey questions for both the expanded discharge planning and case management telephone surveys were developed after the mail surveys were returned and the results analyzed. Both surveys were designed to provide additional information that had not been obtained in the mail survey, and to further classify and describe information that was provided in the responses to the mail survey.

Expanded Discharge Planning Telephone Survey.

The expanded discharge planning telephone survey was designed to further described and expanded upon information that had been received from the mail survey. The questions developed for the telephone survey were classified into three categories, structure, process or outcome criteria. The questions developed were as follows:

Structure. The hospital size, location, profit status, and name of the contact person at the hospital were included in the survey. Additional structural questions designed for

use during the telephone survey included the classification of the staff members who made contact with patients and the primary purpose of the follow-up patient contact.

Process. Several process criteria questions were developed to be asked during the telephone survey. These included verification of phone calls, home or facility visits made, and the percentage of patients receiving this type of contact, and the length of time of follow-up. Additional process questions developed included how the patients were identified for follow-up contact after discharge, and what, if any, criteria was used to identify high risk patients for follow-up contact. An open-ended question was developed to ask the program directors to describe what the patients were asked when they were contacted, what criteria was used to determine if any other things were done for follow-up patient contact, and if so, to describe what was done.

Outcome. Questions were developed to obtain outcome criteria information for the expanded discharge planning programs. These questions included whether or not documentation was kept of the post discharge patient contact, and if the patients were readmitted, whether or not the staff checked to see if the patient had received contact following discharge.

(See Appendix B).

Case Management Telephone Survey

The case management telephone survey was developed last, following completion of the mail survey and the after the completion of the development of the expanded discharge planning telephone survey. This instrument was designed to ask specific questions of hospital case management program directors concerning the programs that had been identified as being case management as defined for this study. As in the expanded discharge planning telephone survey, the information was classified into three categorie: structure, process, and outcome criteria questions.

Structure. As in the expanded discharge planning telephone survey, structural criteria asked during the mail survey included the hospital size, location, and profit status, and the name of the hospital contact person who had completed the mailed survey was noted on the survey form. During the case management telephone survey development, questions were designed to ask the program directors if any modifications had been made in the case management program since it had started, if written materials describing the program existed, and if internal studies of the program had been done.

Process. Questions were developed to identify and describe process criteria. Information concerning whether or not patients received phone calls, home or facility visits

following discharge, and if so, the percentage of patients who received these services. This information, which had been included in the mail survey, was reconfirmed during the telephone survey. A question was designed to ask what information was collected on patients. Additional questions that were process criteria related were open ended, allowing the program directors to describe the activities of the case managers. This information was later quantified. These questions included how often each patient was contacted by the case managers following patient discharge.

Outcome. Several program evaluation questions were developed for inclusion in the case management telephone survey. A question was designed to ask each of the case management program directors if they measured the costs of the case management programs, and if so, if the programs were considered cost effective. Additional questions were designed to ask if any criteria for measuring quality outcomes had been developed and measured, and if so, what was the criteria, if the patient length of stay had changed, if patient readmissions were monitored, and if the readmission rate had changed since case management was introduced. The final question of the survey asked the program directors to describe their perceptions of the benefits of the case management programs. The case management program directors were also asked if they would

be interested in participating in future research that would evaluate their programs (See Appendix C).

Pilot. Human Subject assurance was obtained from the Committee on Human Research, University of California, San Francisco, prior to implementation of the study. Prior to distribution of the mail survey to hospitals in California, the survey was sent to thirty Directors of Discharge Planning in hospitals outside California as a pilot, in an attempt to identify any problems with the survey design, and to test any problems with coding the survey results. Hospitals for the pilot study were selected at random from the American Hospital Association (AHA) list of member hospitals. Ten hospitals with fewer than 100 beds, ten hospitals between 101 and 300 beds, and ten hospitals larger than 300 beds, including University teaching hospitals, were included in the pilot sample.

Problems identified because of the pilot were corrected before the distribution of the survey to the hospitals in California. These changes included changing the term medical assessment to physical assessment in questions 16 and 37. These two questions also had three other categories added to the choices of services offered including discharge planning rounds, conferences with families, and other. Questions 13, 14, 30 and 31 had a category titled "not applicable" added as options.

Study

In an attempt to maximize the response rate, ten days following the initial mailing of the survey, all hospitals that had not returned the survey were mailed a reminder card, emphasizing the importance of the study and of a high response rate. Ten days following the mailing of the postcard, the remaining non-respondents were mailed a letter again emphasizing the importance of a high rate of return, and another copy of the survey. The response rate was less than 50%, so non-respondents were called and personally asked to complete the survey in an attempt to maximize responses (Fowler, 1984).

Response Rate

Four hundred and twenty nine surveys were mailed to hospitals that, based on available licensure information, were believed to be eligible for inclusion in the study. Nine of the hospitals that responded to the study, however, were determined to be ineligible for participation in the study for a variety of reasons (See Table 2). Of the 9 ineligible hospitals, 4 hospitals had closed, 1 hospital had relocated to Oregon, 1 had suspended inpatient beds, 1 facility was in transition and was scheduled to become a skilled nursing facility, 1 hospital had converted to a psychiatric hospital, and two hospitals had merged and were counted as one hospital. All of these were factors that

excluded the hospitals from the study. This changed the number of eligible hospitals in the population to 420 hospitals.

	Number
Hospital Closures	4
Moved Out of State	1
Suspended Inpatient Beds	1
Facility in Transition	1
Converted to Psych Hospital	1
Merged Hospitals	1
Total Ineligible Hospitals	9

Table 2. Hospitals Responding to Study That Are Determined Ineligible for Inclusion.

Out of the 221 surveys returned from eligible hospitals, an additional 12 surveys contained comments that indicated the hospitals did not wish to participate in the study even though they were eligible. From this group, one hospital discharge planning director from a for-profit hospital, indicated that she wanted to participate in the study, but that the hospital administration did not wish to be included in the study. Two hospital discharge planning directors indicated that they did not have the time to complete the survey. The remaining nine non-participating hospitals did not provide reasons for not completing the

survey. Thus, the final return for the study was 209 hospitals, 50% of the 420 hospitals believed to be eligible for inclusion in the study.

Following the return of 50% of the surveys, hospitals were classified as offering either traditional discharge planning, expanded discharge planning, or case management services. The hospitals offering expanded discharge planning services were telephoned and asked additional questions to further define the services that they offer (See Appendix B). These questions consisted of structure, process, and outcome criteria questions including:

STRUCTURE:

1) Who made the contact;

2) What was the primary purpose for the follow-up patient contact;

PROCESS:

3) How patients were selected to receive follow-up contact;

4) What patients were asked when they were contacted;

OUTCOME:

5) Whether documentation of patient contact following discharge was kept with the patient identified; and

6) If a patient was readmitted, if there was any check to see if the patient received post discharge contact.

Hospitals that were identified as offering case management services were called. (See Appendix C).

Questions asked concerning the case management services were classified as structure, process, or outcome criteria questions and included:

STRUCTURE:

1) If any modifications had been made in the program since it was started;

2) If any written materials were available to describe the program;

3) If any internal studies of the program had been designed;

PROCESS:

4) How often each patient was contacted;

5) The length of time that contact extended;

OUTCOME:

6) Whether costs of the program had been measured;

7) If it was known if the program was cost effective;

8) If quality indicators had been measured for case managed patients, what criteria was used to measure quality outcomes for patients;

9) Whether the length of stay had changed since case management was implemented;

10) If hospital readmissions of case managed patients were monitored, and if so, had the readmission rate changed since case management services were introduced; and

11) What the program director's perceived benefits were of the case management program.

Data Analysis

The hospitals that participated in the study were classified according to their size and type of hospital. Categories included those hospitals less than 100 beds, between 101 to 200 beds, 201 to 400 beds, over 400 beds, and university teaching hospitals. Of the 209 hospitals that returned surveys, the number of hospitals in each category is shown in Table 3.

Hospital Size	< 100 Beds	101-200 Beds	201-400 Beds	>400 Beds	Univ Hosp.
Number of Hospitals	61	57	59	28	4
Percent of Hospitals in the Population	44%	50%	50%	64%	80%

Total hospitals eligible to participate = 417
Total hospitals participating in study = 209

Table 3. Size of Hospitals Participating in the Discharge Planning and Case Management Study.

Thus the large hospitals and university hospitals were better represented in the respondent group than were the small and medium sized hospitals. Fewer hospitals with less than 100 beds responded to the survey than any other group.

There were three phases of analysis: (1) descriptive, (2) categorization and classification of hospitals according

to type of programs offered, and (3) detailed descriptions of expanded discharge planning and case management programs based on information obtained from telephone surveys. Descriptive statistics were used to summarize and present the results of the survey. Inferential statistics were not appropriate in this study as an hypothesis was not tested, nor was the support of a causal relationship attempted. The survey was coded and data entered using the CRUNCH (1987), statistical computer software program.

Information obtained from the survey was used to classify hospital discharge planning services into three groups, traditional discharge planning, expanded discharge planning, and case management. All of the hospitals that offered expanded discharge planning and those offering case management services were contacted and studied further through focused telephone interviews of the person responsible for the program, and the services offered were further described. In cases where the hospital offered both expanded discharge planning and case management programs, the directors of both programs were interviewed.

Based on the results of the telephone contact, ten hospitals were reclassified as offering traditional discharge planning services rather than expanded discharge planning, and one hospital was eliminated from the study as the hospital was no longer licensed for acute care beds.

Four of the hospitals originally classified as offering case management services were reclassified as offering expanded discharge planning services, and one hospital was reclassified as offering traditional discharge planning services rather than case management services as a result of additional information obtained from phone contact with the program director. One hospital was reclassified from expanded discharge planning to case management.

Statistical analysis was planned and carried out in consultation with the University of California, San Francisco, School of Nursing Office of Research, in conjunction with statisticians experienced in behavioral science statistical analysis.

CHAPTER FOUR

DATA ANALYSIS

Data Analysis

In the sections that follow, the final study sample is discussed, and the responses obtained from the survey are described. Measures are divided into the three groups of quality criteria, structure, process and outcome. Following a thorough presentation of the survey responses, the results of the telephone survey of hospitals offering expanded discharge planning services are presented and described. The final section of Chapter Four presents the case management programs that are offered by the California hospitals that participated in the study. The case management presentation includes the results of the case management mail survey, and the additional questions asked during the telephone survey of the hospitals that were identified as offering case management services to patients during and following hospitalization.

The Findings

Geographic Distribution

The hospitals participating in the study were distributed throughout health service areas in California, as represented in Table 4. The health service areas were geographically dispersed throughout California (see Figure 9). The percent of response from within each health service area ranged from 42% to 61% within each of the fourteen health service areas.

Health Service Area		Number of Hospitals Completing Survey	Percent of Total Hospitals in Each Area
1.	Northern	15	52%
2.	Golden Empire	12	57%
3.	North Bay	7	54%
4.	West Bay	10	45%
5.	Alameda/Contra Costa	14	61%
6.	North San Joaquin	10	55%
7.	Santa Clara County	5	42%
8.	Mid Coast	7	54%
9.	Central California	18	56%
10.	Ventura/Santa Barbara	6	50%
11.	L.A. County	59	47%
12.	Inland Counties	15	45%
13.	Orange County	14	42%
14.	San Diego/Imperial Co.	17	61%
Total		209	51% Mean

Table 4. Geographic Distribution of Hospitals by Health Service Area.

Thus the response was fairly well distributed across hospitals in each region. The lowest responses were in the West Bay, Santa Clara, Los Angeles, Inland and Orange

Counties. All other health service areas had a majority of hospitals responding to the survey.

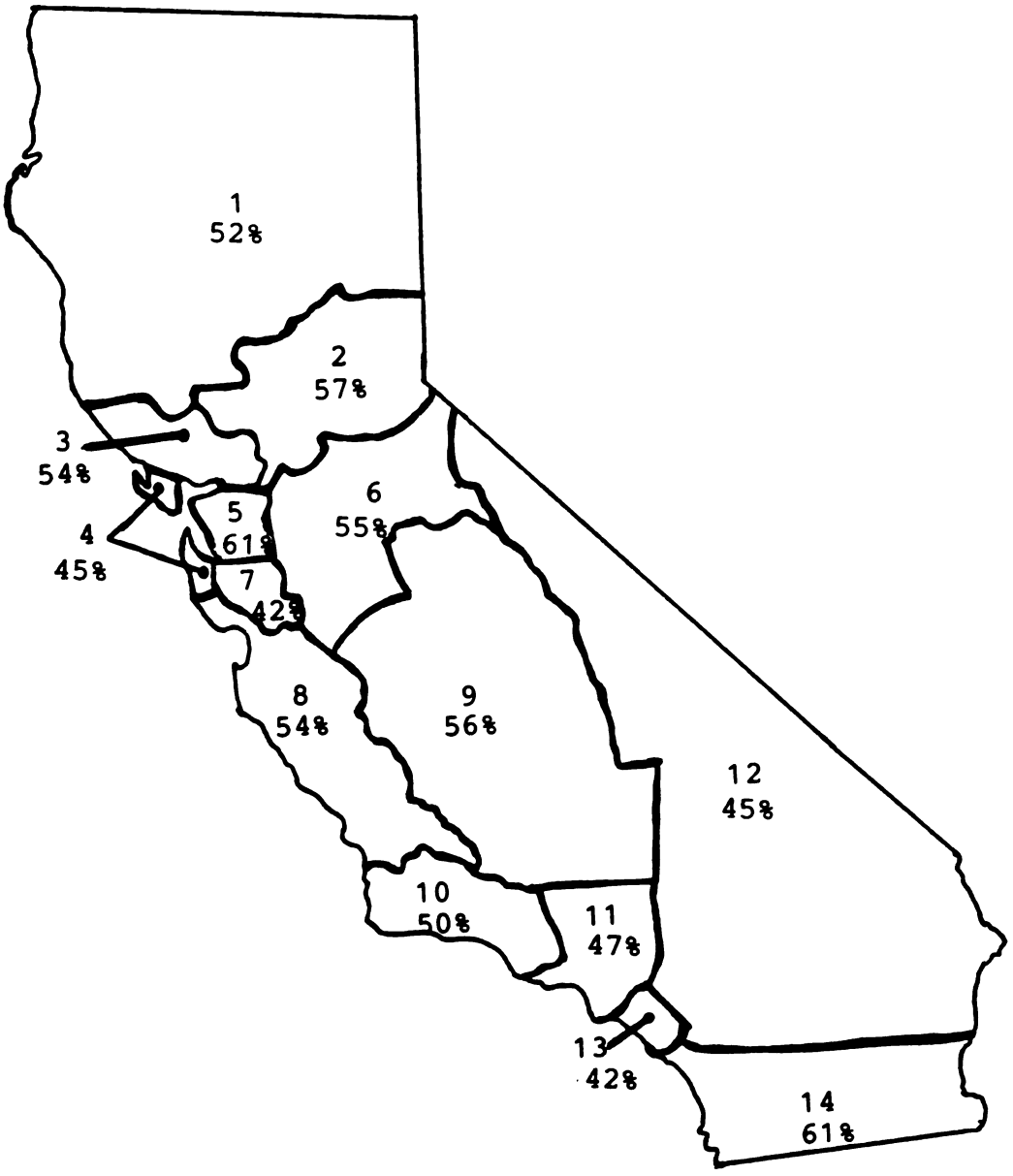

Figure 9. Health Service Areas and Percent of Hospital Response

HOSPITAL STRUCTURE

Discussion of the findings of the survey were categorized based on type of criteria described; structure, process, or outcome. The findings classified as structure criteria included hospital size; profit status; length of hospital stay; percentage of Medicare patients; discharges; number of discharge planners; number of full time equivalents; educational preparation of discharge planning staff; orientation, including new employee orientation and orientation for transferring employees.

Hospital Size

The bed size of the hospitals that participated in the study ranged from nine to 2,045 beds, with a mean of 226 beds. The mean bed size for hospitals in the total population was 207 beds. A one sample t-test was conducted to determine if the hospitals in the sample were representative of the population in bed size. The t-test indicated no statistically significant difference between the hospitals in the sample and the total population of hospitals (t=1.5, alpha .05). Thus the hospitals in the sample are representative of the total hospital population in terms of bed size.

The number of medical-surgical beds in the hospital sample ranged from eight to 1,364 beds with a mean of 149 beds. The mean number of medical-surgical beds in the total population was 139 beds. A one sample t-test was conducted

and found no statistically significant difference between the mean number of medical-surgical beds in the sample compared to the population of hospitals (t = 1.1, alpha .05). Thus the hospitals in the sample are representative of the total hospital population in number of medical-surgical beds.

Profit Status

The hospitals in the study were classified into one of nine profit status categories (see Table 5). The total percent of respondent hospitals that were classified as nonprofit hospitals was 58%. The nonprofit category included nonprofit corporations, other nonprofit hospitals, Kaiser hospitals, and church nonprofit hospitals. The public hospitals included hospital districts, county hospitals, and university hospitals, and comprised 20% of the hospitals that responded to the survey. Hospitals categorized as profit facilities comprised 22% of the hospitals that responded to the survey. The profit category consisted of profit hospitals and profit partnerships (see Figure 10).

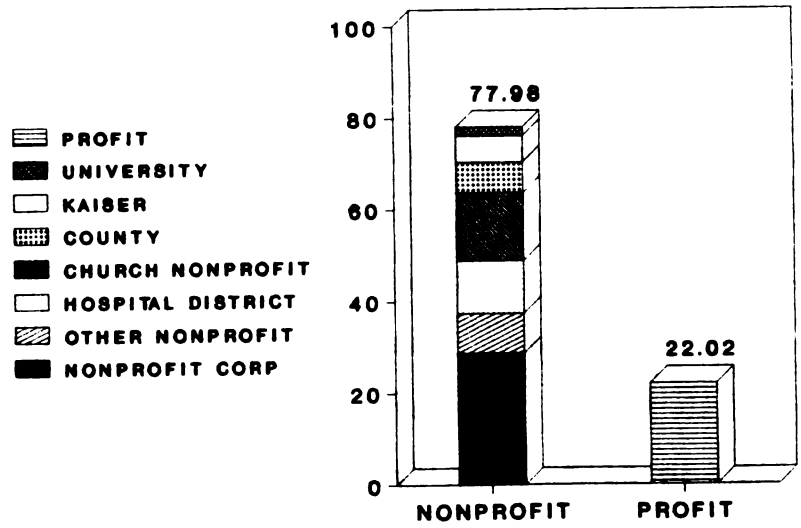

Figure 10. Distribution of Hospital Profit-Nonprofit Status.

Profit Status	Frequency	Total Hospitals Eligible	Percent of Total Eligible CA Hosps Participating
NONPROFIT:			
Nonprofit Corp	60	105	57%
Other Nonprofit	18	29	62%
Kaiser	12	24	50%
Church Nonprofit	31	56	55%
PROFIT:			
Profit Corp.	40	113	35%
Prof. Partnership	6	9	66%
PUBLIC:			
Hospital District	24	49	49%
County	14	30	47%
Univ. Nonprofit	4	5	80%
Total	209	420	56% Mean

N = 209 hospitals

Table 5. Hospital Profit-Nonprofit Status.

A Chi squared, Goodness of Fit statistical test was conducted to determine if the sample was representative of the total eligible population based upon the profit status. There was no statistical difference in the profit status of the total sample compared to the population ($p = .05$) for all categories. Chi squared tests conducted for the 4 nonprofit categories revealed no statistical difference between the sample and the total population of hospitals eligible for the study ($p = .05$). There was also no statistical difference between the sample of public hospitals compared to the total population of public hospitals. However, a Chi squared test of the profit hospitals was statistically significant ($p = .05$), indicating that the profit hospitals in the sample were not representative of the total population of profit hospitals that were eligible for inclusion in the study. Examination of the frequencies suggested that the category of profit corporations was underrepresented in the study. This could be due to a lack of discharge planning staff, a lack of staff time, or a lack of interest among the profit hospitals to participate in the study.

Length of Hospital Stay

The average hospital length of stay (LOS) ranged from a low of 2.7 days to as high as 23.8 days. The mean length of stay for all hospitals in the study including the two hospitals with lengths of stay in excess of 22 days, was 5.8

days. The overall length of stay for all of the California hospitals that were eligible for the study was 6.6 days. A one sample t-test revealed a statistically significant difference between the hospitals in the study and the population of hospitals (t = -5.9, alpha .05). Thus the hospitals that self-selected and participated in the study had a significantly lower length of stay than the total population.

Discharges

The average number of medical-surgical patient discharges ranged from a low of five patients per month in one hospital to a high of 13,897 patients per month in the largest hospital in the study. The mean number of patient discharges per month in the participating hospitals was 511 patients. The average number of medical-surgical patient discharges for all of the California hospitals that were eligible for the study was 387 discharges per month.

Percentage of Medicare Patients

Of the 181 hospitals that provided information on the percent of Medicare patients, there was a range between less than 1% and 85% Medicare patients served. The mean was 69% Medicare patients treated in hospitals in the study, as represented in Table 6. (See Figure 11 for graphic representation). The average percent of Medicare patients treated in all of the eligible hospitals in California was information that could not be located. The percent of

Medicare patients in the responding hospitals comprised 43% of the total hospitals eligible for the study. The Medicare population for the other 57% of the hospitals that were eligible for the study was not known and could not be found. Thus the information about the number of Medicare patients treated by the hospitals was not complete for the respondent hospitals, and is unknown for the hospitals that did not participate in the study.

Percent Medicare Patients	Frequency	Cumulative Frequency	%	Cumulative Percent
5 - 25%	23	23	12.71	12.71
26 - 40%	54	77	29.83	42.54
41 - 50%	49	126	27.07	69.61
51 - 60%	25	151	13.82	83.43
61 - 85%	30	181	16.57	100.00

Mean = 69% Medicare Patients

N = 181 hospitals

Table 6. Percentage of Medicare Patients Admitted to Study Hospitals.

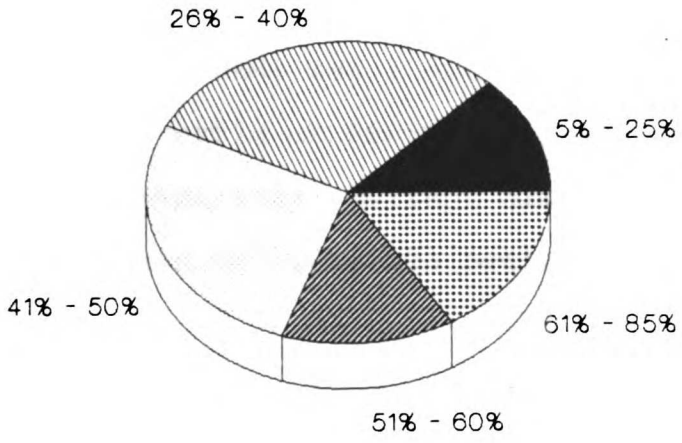

Figure 11. Percent Medicare Patients

STAFFING LEVELS

The following section presents findings from the survey concerning staffing levels. Specifically, the number of discharge planners employed by each hospital in the sample, the number of full time equivalents employed as discharge planners, and their educational preparation and orientation to their positions.

Number of Discharge Planners

Of the 207 hospitals that reported, the number of discharge planners ranged from one hospital with no discharge planner to one with 60 discharge planners. The mean number of discharge planners was 4.47. Eight percent of the hospitals had 6 or fewer discharge planners (See Figure 12). There were a total of 872 discharge planners

reported by the hospitals in the sample, and a total of 46,333 hospital beds. The mean ratio of discharge planners to total hospital beds was 1 discharge planner to every 53 beds. The mean ratio of discharge planners to average monthly medical-surgical patient discharges was one discharge planner to every 123 patient discharges.

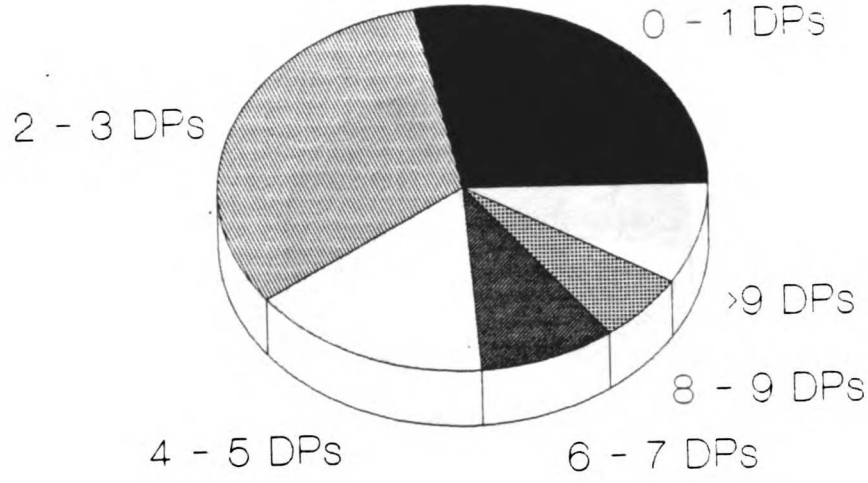

Figure 12. Number of Discharge Planners

Number of Full Time Equivalents

The number of full time equivalents (FTEs) budgeted for discharge planners in the participating hospitals ranged from 0 to 60. Two hundred and five hospitals provided this information. Fifty percent of the hospitals responded that they had up to 2.9 FTEs employed as discharge planners.

Each FTE was employed full time, or 2,080 hours per year (See Figure 13 for a detailed distribution of FTEs). There was a total of 782 Discharge Planner FTEs in the sample. The mean ratio of discharge planners to total beds was one FTE for every 59.2 beds, and 1 FTE for every 137 medical-surgical patients discharged.

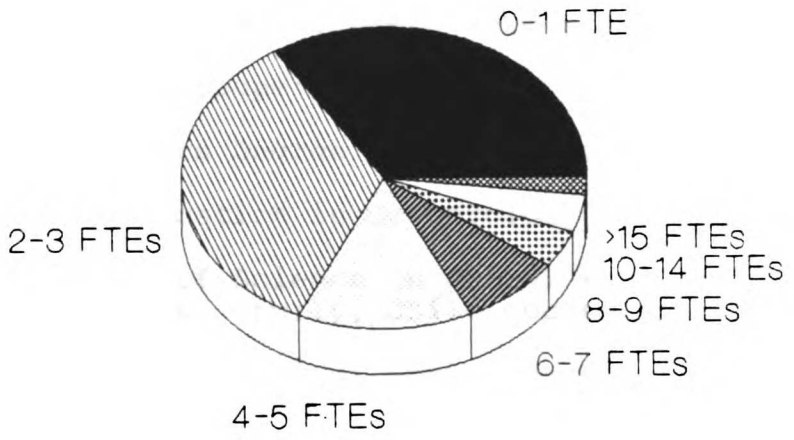

Figure 13. Discharge Planning FTEs

Education of Discharge Planners

The highest education level for each discharge planner in every hospital in the study was divided into two categories, those discharge planners who are nurses and

those who are not nurses. Nurses who are employed as discharge planners were categorized into the following six groups:

1) Licensed Vocational Nurse (LVN)
2) Diploma RN
3) Associate Degree RN (AD RN)
4) Bachelor of Science Degree RN (BSN RN)
5) Masters Degree in Nursing (MSN)
6) Doctor of Nursing Science/PhD

Non-nursing discharge planners were categorized into the following seven groups:

1) Bachelors Degree in Social Work (BSW)
2) Certification in Gerontology (Geron)
3) Master of Science in Social Work (MSW) and Marriage, Family, Child Counselors (MFCCs)
4) Licensed Clinical Social Worker (LCSW)
5) Occupational Therapist (OT)
6) High School Graduate (HS Grad)
7) Other Category

Two hundred and six hospitals provided information on the education preparation of 872 discharge planning staff. Of the total number, 51% of the discharge planners were nurses. The remaining 49% were non-nurses. In the non-nurse category, 88% were prepared as social workers, either at the bachelor or master level, licensed clinical social workers, or marriage, family, child counselors.

The hospitals in the study employed staff prepared with masters degrees in social work more than any other single educational category of discharge planning staff, comprising 22% of all discharge planners in the study. Nurses prepared with bachelors degrees in nursing were the next largest group of discharge planners in the study hospitals, comprising 19% of the total number of discharge planners. The nurse discharge planner information will be described, in the following section, followed by the non-nurse discharge planner educational categories.

Education of Nurses as Discharge Planners

The majority of the nurses who were discharge planners in the hospitals participating in the study, were educationally prepared at the bachelor of science in nursing level (see Figure 14). Hospitals in the study reported the employment of nurse discharge planners who were educationally prepared as licensed vocational nurses, diploma prepared registered nurses, associate degree nurses, masters prepared nurses, and one hospital employed a nurse discharge planner who was educationally prepared with a doctorate in nursing.

The specific responses of each hospital are presented according to education category. Two hundred and six hospitals provided information on the education level of their discharge planners. Three hospitals did not provide this information.

Licensed Vocational Nurses

Eighty-eight percent of the hospitals reported that they did not have licensed vocational nurses employed in the role of nurse discharge planner. A total of 3.5% of all discharge planners in the study are LVNS employed in 12% of the hospitals in the study. The distribution was broken down as follows:

Number of Hospitals	Number of Licensed Vocational Nurses as Discharge Planners in Each Hospital	Total Number of Licensed Vocational Nurses
181	0	0
21	1	21
2	2	4
2	3	6
Total 206 Hospitals		31 LVNs

25 hospitals employ LVNs as discharge planners

3.5% of total discharge planners are LVNs

Table 7. Licensed Vocational Nurses as Discharge Planners

Associate Degree Registered Nurses

Seventy-three percent of the hospitals reported that they had no associate degree registered nurses working as discharge planners. A total of 27% of the hospitals employed 89 associate degree nurses as discharge planners.

The distribution was broken down as follows:

Number of Hospitals	Number of Associate Degree Registered Nurses as Discharge Planners In Each Hospital	Total Number of Associate Degree RNs
151	0	0
33	1	33
12	2	24
8	3	24
2	4	8
Total 206 Hospitals		89 AD RNs

55 hospitals employ AD RNs as discharge planners

10.2% of total discharge planners are AD RNs

Table 8. Associate Degree Registered Nurses as Discharge Planners.

Bachelor of Science in Nursing

Sixty-one percent of the hospitals employed no bachelor of science in nursing registered nurses as discharge planners. Thirty-nine percent of the hospitals in the study employed 170 BSN prepared registered nurses as discharge planners. The distribution is as follows:

Number of Hospitals	Number of BSN Prepared Discharge Planners In Each Hospital	Total Number of BSN RNs
125	0	0
37	1	37
22	2	44
10	3	30
5	4	20
4	5	20
2	6	12
1	7	7
Total 206 hospitals		170 BSN RNs

81 Hospitals employ BSN RNs discharge planners

19.4% of total discharge planners are BSN RNs

Table 9. Bachelor of Science Degree in Nursing Registered Nurses as Discharge Planners

Diploma Educated Registered Nurses

Sixty-five percent of the hospitals reported that they employed no diploma educated registered as discharge planners. A total of 35% of the hospitals employed 118 diploma educated registered nurses as discharge planners. The distribution of the diploma RNs is as follows:

Number of Hospitals	Number of Diploma RNs In Each Hospital	Total Number Diploma RNs
134	0	0
45	1	45
16	2	32
4	3	12
6	4	24
1	5	5
Total 206 hospitals		118 Diploma RNs

72 hospitals employ Diploma RNs as discharge planners

13.5% of total discharge planners are Diploma RNs

Table 10. Diploma Educated Registered Nurses as Discharge Planners

Masters Degree in Nursing

Six and eight-tenths percent of the hospitals in the study employed a total of 39 Masters prepared Registered Nurses in the role of discharge planner. Ninety-three percent of the hospitals employed no masters prepared nurses as discharge planners. The distribution of the masters prepared nurse discharge planners is as follows:

Number of Hospitals	Number of MSNs employed as Discharge Planners in Each Hospital	Total Number of MSNs
192	0	0
10	1	10
2	2	4
1	4	4
1	21	21
Total 206 hospitals		39 MSNs

14 hospitals employ MSNs as discharge planners

4.4% of total discharge planners are MSNs

Table 11. Registered Nurses with Masters of Science Degrees in Nursing as Discharge Planners

Doctor of Nursing Science/Doctor of Philosophy

Only one of the hospitals in the study reported that they employed a nurse with a doctoral degree as a discharge planner. This individual also served as the Director of the Discharge Planning Department for the hospital. The remaining 99% of the hospitals in the study did not employ doctoral prepared staff as discharge planners. (See Figure 14 for a graphic representation of the distribution of education preparation of nurses working as discharge planners).

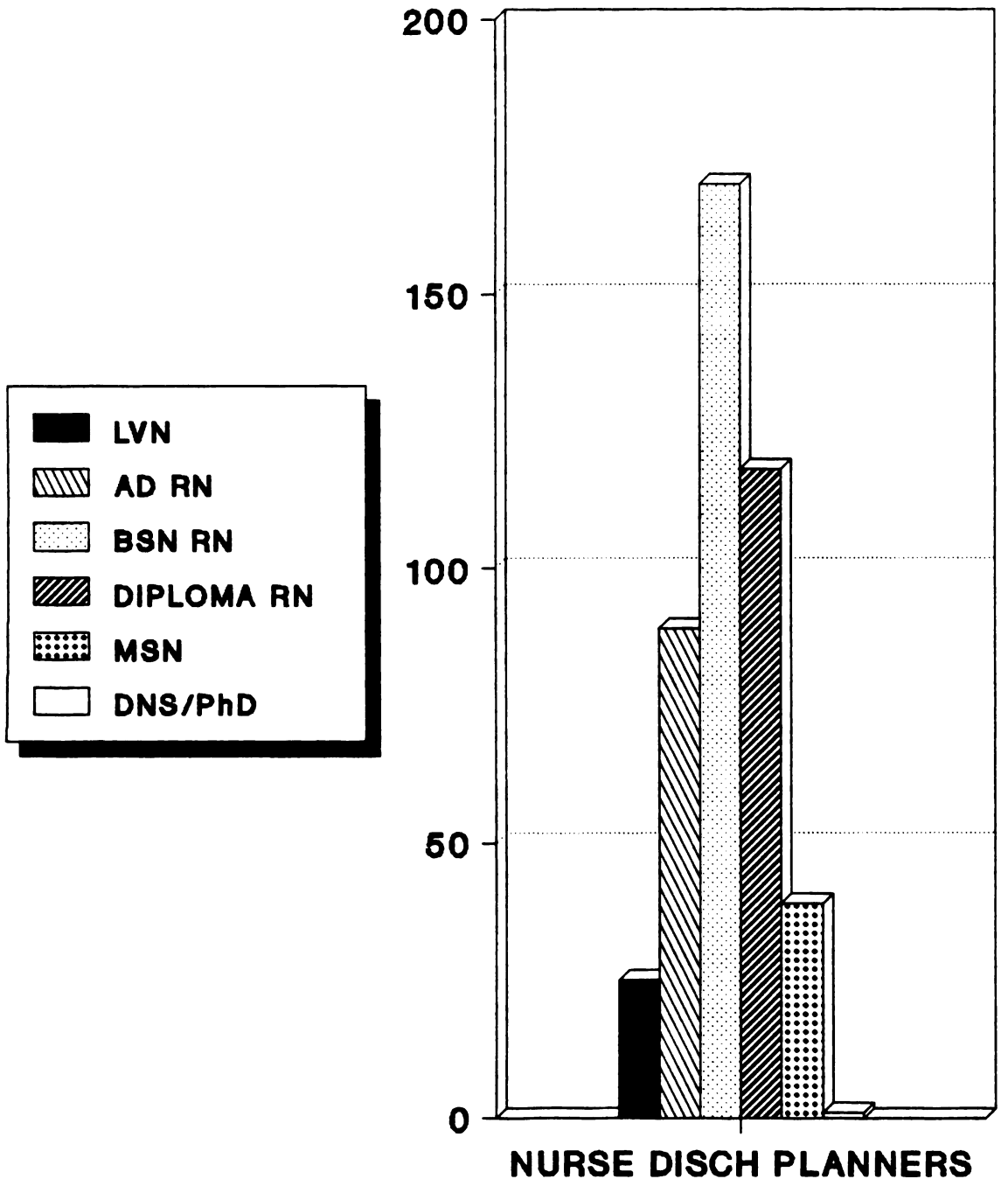

Figure 14. Education of Nurse Discharge Planners

Education of Non-Nurses as Discharge Planners

Non-nurses who were discharge planners included those staff who were educationally prepared with a bachelor of science in social work; masters degree in social work, including marriage, family, and child counselors; licensed clinical social workers; gerontology specialists; occupational therapist; high school graduates without advanced degrees or certification; and individuals with college degrees in other areas, such as psychology.

Among all of the discharge planners in the study, the majority were educationally prepared with masters degrees in social work. A total of 22% of the discharge planners in the 206 reporting hospitals were prepared with masters degrees in social work. The next largest education level of non-nurse discharge planners were those staff prepared with bachelor degrees in social work (See Figure 15). The specific responses of the hospitals are presented by educational category.

Bachelor of Science in Social Work

Seventy-four percent of the hospitals reported that they employed no discharge planners who were educationally prepared with bachelor of science degrees in social work. Of the remaining hospitals, 26% employed a total of 14.8% of the discharge planners who are prepared with bachelors degrees in social work. The distribution of bachelors prepared social workers is as follows:

Number of Hospitals	Number of BSWs as Discharge Planners In Each Hospital	Total Number of BSWs
152	0	0
31	1	31
11	2	22
6	3	18
3	4	12
1	6	6
1	10	10
1	30	30
Total 206 hospitals		129 BSWs

54 hospitals employ BSWs as discharge planners

14.8% of total discharge planners are BSWs

Table 12. Bachelor of Science in Social Work Staff as Discharge Planners

Masters of Science in Social Work

Seventy-one percent of the hospitals reported that they did not employ discharge planners prepared with masters degrees in social work. Twenty-nine percent of the hospitals participating in the study employed 22.6% of the discharge planners with masters degree in social work preparation. The distribution of masters prepared social workers as discharge planners is as follows:

Number of Hospitals	Number of MSWs as Discharge Planners In Each Hospital	Total Number MSWs
146	0	0
32	1	32
11	2	22
2	3	6
1	4	4
3	5	15
1	6	6
4	7	28
2	8	16
1	10	10
1	11	11
1	17	17
1	30	30
Total 206 hospitals		197 MSWs

60 hospitals employ 197 MSWs as discharge planners

22.6% of total discharge planners are MSWs

Table 13. Master of Science Degree in Social Work Staff as Discharge Planners.

Marriage, Family and Child Counselor

One hospital reported that they employed a marriage, family and child counselor staff member as a discharge planner. The other 205 hospitals that responded to this question indicated that they did not have in their employ staff with this certification serving in the role of discharge planner.

Licensed Clinical Social Worker

Licensed Clinical Social Workers, a category of social workers who have completed additional educational and practice qualifications to obtain this designation, were employed in 12% of the participating hospitals. A total of 5% of all Discharge Planners were LCSWs and were employed as follows:

Number of Hospitals	Number of LSCWs as Discharge Planners In Each Hospital	Total Number LCSWs
182	0	0
14	1	14
4	2	8
2	3	6
1	4	4
2	5	10
1	6	6
Total 206		48 LCSWs

24 hospitals employ 48 LCSWs as Discharge Planners

5.5% of total discharge planners are LCSWs

Table 14. Licensed Clinical Social Workers as Discharge Planners.

Gerontology Specialist

Four hospitals employed a total of 4 Gerontology Specialists who worked as discharge planners, .46% of the total discharge planners. None of the hospitals indicated if this designation had been awarded through graduate work

in gerontology, if special course work had been completed in the field of gerontology, or if the individuals with this designation held certification as specialists in gerontology.

Occupational Therapist

The category of occupational therapist was added to the survey because two hospitals in the pilot study indicated that they each employed one occupational therapist as discharge planner. In the study, one hospital reported that they employed a staff member as a discharge planner who was educated as an occupational therapist. This is .1% of the total discharge planners. The remaining 99% of the hospitals did not have occupational therapists employed as discharge planners.

High School Graduate

Perhaps surprising, 4.3% of the hospitals reported that they had a total of 10 staff serving as discharge planners who had no further degrees beyond high school. Eight hospitals reported one high school graduate each, and one hospital employed two high school graduates in the role of discharge planner. High school graduates comprised 1.1% of the total discharge planners. These individual employees received on the job training that the hospital discharge planning directors in these hospitals believed prepared them adequately for the role of discharge planner. It cannot be determined from the survey whether these discharge planners

were hired because of financial considerations, if better educated discharge planning staff was not available, or if the directors of discharge planning in these nine hospitals believed that high school preparation with on the job training was sufficient preparation for discharge planning staff.

Other Education

Thirteen percent of the hospitals had a total of 34 discharge planners with other educational backgrounds. This was 3.9% of the total discharge planners in the sample. Not all of the discharge planning directors provided specific information on the degrees that these discharge planners hold, but several indicated that the discharge planning staff had bachelor degrees in psychology, counseling, and liberal arts. The number of hospitals with discharge planners with other degrees are distributed as follows:

Number of Hospitals	Number of Other Degrees as Discharge Planners in Each Hospital	Total Number of Other Degrees
179	0	0
21	1	21
5	2	10
1	3	3
Total 206		34

27 hospitals employ 34 discharge planners with degrees in other specialties

3.9% of total discharge planners are prepared with other degrees

Table 15. Discharge Planners With Other Degrees.

Distribution of the non-nurse discharge planners is graphically displayed in Figure 15.

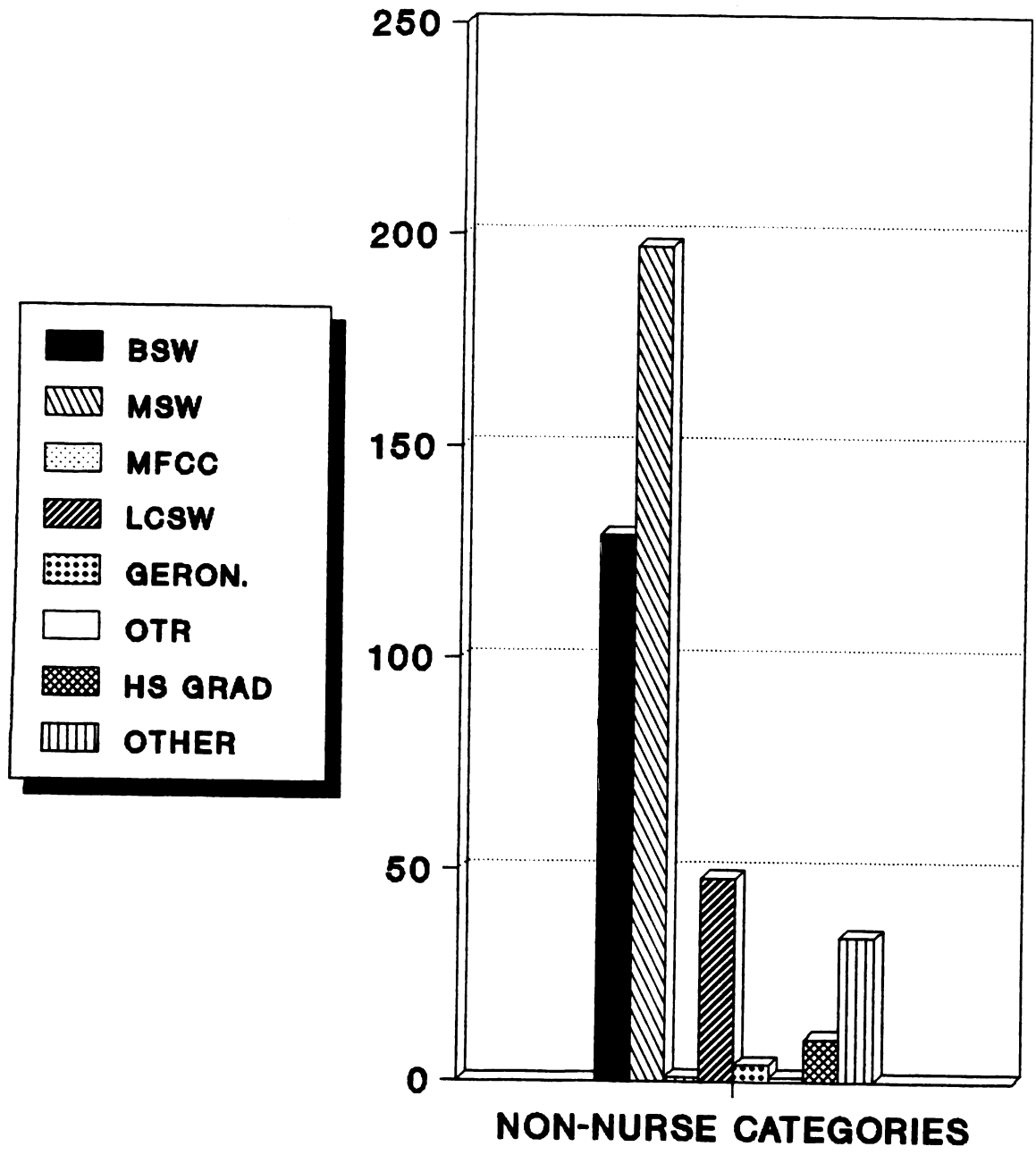

Figure 15. Education Preparation of Non-Nurse Discharge Planners.

Orientation

The next section of the survey focused on the amount of orientation that discharge planning employees received. Two questions were asked, one concerning the amount of orientation that experienced discharge planners received as new hospital employees, and the other question asked the amount of orientation that hospital employees without previous discharge planning experience received when they transferred into the role of discharge planner. Two hundred and six hospitals answered the two orientation questions.

New Employee Orientation

The amount of orientation for discharge planners who were also new hospital employees ranged from not applicable for hospitals who had not hired discharge planners from outside of the hospital, to a range from no orientation to twenty two days or more. (See Table 16). The mean amount of orientation for new hospital discharge planning employees was 4.13 days.

Amount of Orientation Discharge Planners Received as New Hospital Employees	Frequency	%	Cumulative Percent
None	11	5.34	5.34
One Day	14	6.80	12.14
2-7 Days	55	26.70	38.83
8-14 Days	58	28.16	66.99
15-21 Days	19	9.22	76.21
22 Days or More	22	10.68	86.89
Not Applicable	27	13.10	100.00

Mean = 4.13 days

N = 206 hospitals

Table 16. Amount of Orientation Discharge Planning Employees Received as New Hospital Employees

Orientation for Transferring Employees

Current hospital employees without previous discharge planning experience who transferred into the role of discharge planner received, on the average, more orientation (mean of 4.85 days) than experienced discharge planners who were new to the hospital received. Thirty-one percent of the hospitals, however, indicated that they had not transferred current hospital employees into the role of discharge planner. This was shown in the large number of "Not Applicable" responses (31.55% of responses). (See Table 17).

Amount of Orientation Transferring Employees Received	Frequency	%	Cumulative Percent
None	7	3.40	3.40
One Day	11	5.34	8.74
2-7 Days	38	18.45	27.18
8-14 Days	50	24.27	51.46
15-21 Days	17	8.25	59.71
22 Days or More	18	8.74	68.45
Not Applicable	65	31.55	100.00

Mean = 4.86 days

N = 206 hospitals

Table 17. Amount of Orientation for Employees Transferring into Discharge Planning Department.

Case Management

Two questions asked on the survey focused on case management services. Each hospital was asked whether or not, based upon the definition of case management provided, they offered case management services. The definition of case management that was used for the study was provided, which was whether or not the hospital remained in contact with patients for longer than a two weeks following hospital discharge.

The first question asked if the hospital offered case management services. Of the 206 hospitals that answered the question, 83% of the hospitals reported that they did not

offer case management services. Seventeen percent reported that they provided case management services. Subsequent telephone follow-up revealed that only 5% of the hospitals actually provided case management services as defined in this study. Those hospitals who self-reported case management services did not consistently follow the definition of case management that was provided, but rather provided discharge planning services which the individual hospitals had labeled case management.

The one hundred and seventy hospitals that indicated that they did not provide case management services were asked whether or not case management services had been considered. Forty percent reported that they had not considered case management programs. Six percent of these hospitals requested more information on case management services prior to considering the implementation of such a program. Other hospitals indicated that they were not sure whether such a program was cost effective, and were hesitant to implement new programs unless the program was known to decrease costs. Forty-one percent of the hospitals indicated that case management programs had been considered. Several of these hospitals reported that the hospital's financial status was not healthy enough to allow the implementation of new, untried programs. Thirty-two of the hospitals that participated in the study did not answer this question. Twenty-one percent of the hospitals did not

answer the question because they identified themselves as already offering some type of case management program. It is not known why the remaining hospitals failed to answer this question.

The final question of the survey asked if the hospitals were willing to have their hospital identified along with the results of the survey. Thirty-seven percent of the hospitals agreed to have their hospitals identified, 53% of the hospitals refused to have their hospitals identified with their answers to the survey, and 10% of the hospitals did not answer this question. The question of willingness to have the results of the survey reported with the hospitals identified was a question that was asked again during the phone survey for both the expanded discharge planning and case management follow-up phone calls.

DISCHARGE PLANNING PROCESSES

Several questions addressed the process issues of discharge planning. These included questions focused on patient follow-up services after discharge by phone, home visits, or facility visits; and discharge planning staff activity questions.

Staff Activities

The next section of the survey asked how much time the discharge planners spend performing discharge planning, utilization review, quality assurance or other activities.

These four activities were identified by discharge planning experts during the survey development phase. The activities were verified by the pilot survey as the primary activities that discharge planning staff were asked to perform. (See Table 18 for the means of the activities).

Activity	Mean Time Spent By Staff Performing Activity
Discharge Planning	80%
Utilization Review	42%
Quality Assurance	1.7%
Other Activities	1.1%

Table 18. Mean Time Spent By Discharge Planning Staff Performing Activities

Discharge Planning

The distribution of time spent by discharge planners performing discharge planning activities is shown in Table 19. A mean of 80% of the staff time is devoted to discharge planning activities.

Percent of Time Spent Performing Discharge Planning Activities	Frequency	%	Cumulative Percent	
0	2	.98	.98	
1 - 25%	12	5.85	6.83	
26 - 50%	41	20.00	26.83	
51 - 75%	52	25.37	52.20	76
-100%	97	47.31	99.51	
>100%	1	.49	100.00	

Mean = 80%

N = 205 hospitals

Table 19. Percent Time Spent Performing Discharge Planning Activities

Utilization Review

The majority (55%) of the hospital discharge planners did not perform utilization review activities. Of those hospitals that had discharge planners who also performed utilization review activities, the mean was 42% of the time spent performing utilization review activities (See Table 20).

Percent of Time Spent Performing Utilization Review Activities	Frequency	%	Cumulative Percent
0	113	55.12	55.12
1 - 25%	61	29.76	84.88
26 - 50%	26	12.68	97.56
51 - 75%	2	.98	98.54
76 -100%	3	1.46	100.00

Mean = 42%

N = 205 hospitals

Table 20. Percent Time Spent Performing Utilization Review Activities

Quality Assurance

None of the 205 reporting hospitals indicated that their discharge planning staff spend more than 50% of their time performing quality assurance activities. Forty-five percent of the hospitals indicated that their discharge planners perform no quality assurance activities. A mean of 1.7% of the discharge planners time was spent performing quality assurance activities (See Table 21).

Percent of Time Spent Performing Quality Assurance	Frequency	%	Cumulative Percent
0	92	44.88	44.88
1 - 5%	53	25.85	70.73
6 - 25%	55	26.83	97.56
26 - 50%	5	2.44	100.00

Mean = 1.7%

N = 205 hospitals

Table 21. Percent Time Spent Performing Quality Review Activities

Other Activities

The hospitals were asked the percent of time that the discharge planners spent performing other activities. The specific activities that the discharge planners performed that were included in this question encompass all non-discharge planning activities, such as assistance with form completion, and family counseling (See Table 22). The mean amount of time spent on other activities was 11.2%.

Percent of Time Spent Performing Other Activities	Frequency	%	Cumulative Percent
0	97	47.32	47.32
1 - 10%	44	21.46	68.78
11 - 20%	20	9.76	78.54
21 - 30%	22	10.73	89.27
31 - 40%	11	5.36	94.63
41 - 50%	7	3.42	98.05
51 - 60%	4	1.95	100.00

Mean = 11.2%

N = 205 hospitals

Table 22. Percent of Time Spent Performing Other Activities

Patient Contacts

Thirty-four hospitals did not respond to the question concerning how many patient contacts each discharge planner made per week. Many of the non-respondents indicated on the survey that they did not keep track of the number of patient contacts that each discharge planner made.

Twenty-four of the hospitals responded that each of their discharge planners had contact with more than 100 patients per week. This number of contacts indicated that, on the average, discharge planners came in contact with at least 20 patients or more each day. Because this is a large number of patients for a discharge planner to interview each day, it is possible that the contact consisted of review of charts or admitting records, and not actual patient contact

or patient interviews, but there is no way to validate this from the study question (See Table 23). It is also possible that these Discharge Planning Directors misunderstood the question and provided the total number of patients that all of the discharge planners in the department contact, but again, there is no way to determine if there was an error in answering the question, and if so, the nature of the error. Because of the 24 hospitals that reported patient contacts of between 101 and 490 patient contacts per day per discharge planner, the mean number of patient contacts was 57.4 patients per day.

Number of Patient Contacts/Week	Frequency	Cumulative Frequency	%	Cumulative Percent
1 - 25	60	60	34.29	34.29
26 - 50	57	117	32.57	66.86
51 - 75	19	136	10.85	77.71
76 - 100	15	151	8.58	86.29
101 - 125	6	157	3.42	89.71
126 - 150	7	164	4.00	93.71
151 - 175	1	165	.57	94.29
176 - 200	5	170	2.85	97.14
201 - 225	1	171	.57	97.71
226 - 250	3	174	1.72	99.43
>250	1	175	.57	100.00

Mean = 57.42 patient contacts/week

N = 175 hospitals

Table 23. Number of Patient Contacts Made Each Week by Discharge Planners

After determining the number of discharge planners and the average number of patient contacts that they made in a week, the next question asked what discharge planning activities the discharge planners performed when they contacted patients. The following section presents the discharge planner activities that were reported, from the most common to the least common activities.

Discharge Planning Activities

The Discharge Planning Directors were asked how the department's discharge planners spent their time when they functioned in the role of discharge planner and what specific services were provided to patients. The question consisted of 14 options, and each hospital Discharge Planning Director indicated the average percentage of time that the discharge planners spend on each activity. The total of all activities for each hospital equals 100%. The activity options provided and the average percent of time spent are as follows from most common to least common activity:

(1) Conferencing with families (12%);

(2) Coordinating community services (11.2%);

(3) Coordinating services within the hospital (11.1%);

(4) Providing referral services (10%);

(5) Performing ongoing assessment or monitoring of the patient (9.2%);

(6) Performing social assessments (8%);

(7) Participating in discharge planning rounds (7.7%);

(8) Performing functional assessments (6.2%);

(9) Performing physical assessments (5.9%);

(10) Performing financial assessments (5.9%);

(11) Performing psychological assessments (5.6%);

(12) Performing other services (4.6%);

(13) Assisting with form completion (1.8%);

(14) Hiring staff for the patient (1.3%).

The total responses for each of these activities will now be presented. One hundred and ninety-seven hospitals completed this question, with 12 hospitals excluded because they either did not answer the question or did not answer the question completely.

Family Conferences

Only two hospitals (1.02%) indicated that their discharge planners did not hold conferences with families. The mean amount of time spent by the discharge planners in conferences with families was 12% (See Table 24).

Percent Time Spent in Conference With Families	Frequency	Cumulative Frequency	%	Cumulative Spent Percent
0	2	2	1.02	1.02
1 - 10	126	128	63.95	64.97
11 - 20	54	182	27.42	92.39
21 - 30	13	195	6.59	98.98
31 - 40	1	196	.51	99.49
41 - 50	1	197	.51	100.00

Mean = 12% of total discharge planning activities

N = 197 hospitals

Table 24. Percent Time Spent in Conference With Families

Coordination of Community Services

Twelve percent of the hospitals that answered this question indicated that their discharge planners did not coordinate community services for patients. The mean time spent coordinating community services was 11.2% (See Table 25).

Percent Time Coordinating Community Services	Frequency	Cumulative Frequency	%	Cumulative Percent
0	24	24	12.18	12.18
1 - 10	116	140	69.30	71.07
11 - 20	40	180	20.30	91.37
21 - 30	10	190	5.08	96.45
31 - 40	3	193	1.52	97.97
41 - 50	2	195	1.02	98.98
51 - 60	1	196	.51	99.49
61 - 70	0	196	0	99.49
71 - 80	1	197	.51	100.00

Mean = 11.2% of total discharge planning activities

N = 197 hospitals

Table 25. Percent Time Spent Coordinating Community Services

Coordination of Services Within the Hospital

Twelve point seven percent of the hospitals reported that they did not coordinate services for their patients within the hospital. The mean time spent by the discharge planners in the coordination of services is 11% (See Table 26).

Percent Time Spent Coordinating Services Within the Hospital	Frequency	Cumulative Frequency	%	Cumulative Percent
0	25	25	12.69	12.69
1 - 10%	109	134	55.33	68.02
11 - 20%	48	182	24.37	92.39
21 - 30%	9	191	4.56	96.95
31 - 40%	4	195	2.03	98.98
41 - 50%	1	196	.51	99.49
51 - 60%	0	196	0	99.49
61 - 70%	0	196	0	99.49
71 - 80%	1	197	.51	100.00

Mean = 11.1% of total discharge planning activities

N = 197 hospitals

Table 26. Percent Time Spent Coordinating Services Within the Hospital.

Referral Services

Eight percent of the hospitals that responded to the study reported that the discharge planners did not spend time providing referral services for patients. The hospitals that provided referral services had discharge planners who spent a mean of 10.8% of their time on this activity (See Table 27).

Percent of Time Spent Providing Referral Services	Frequency	Cumulative Frequency	%	Cumulative Percent
0	16	16	8.12	8.12
1 - 10%	122	138	61.93	70.05
11 - 20%	44	182	22.34	92.39
21 - 30%	12	194	6.09	98.48
31 - 40%	1	195	.51	98.98
41 - 50%	1	196	.51	99.49
51 - 60%	0	196	0	99.49
61 - 70%	1	197	.51	100.00

Mean = 10.8% of total discharge planning activities

N = 197 hospitals

Table 27. Percent Time Spent Providing Referral Services.

Ongoing Assessment and Monitoring

Twenty one percent of the responding hospitals indicated that the discharge planners did not perform ongoing assessment or monitoring of patients. The mean time spent by discharge planners in hospitals that provided this service was 9.2% (See Table 28).

Percent Time Providing Ongoing Assessment and Monitoring	Frequency	Cumulative Frequency	%	Cumulative Percent
0	42	42	21.32	21.32
1 - 10%	119	161	60.41	81.73
11 - 20%	21	182	10.66	92.39
21 - 30%	11	193	5.58	97.97
31 - 40%	1	194	.51	98.48
41 - 50%	1	195	.51	98.98
51 - 60%	1	196	.51	99.49
61 - 70%	1	197	.51	100.00

Mean = 9.2% of total discharge planning activities

N = 197 hospitals

Table 28. Percent Time Spent Providing Ongoing Assessment and Monitoring.

Social Assessment

Eight point six percent of the hospitals reported that the discharge planning staff did not spend time performing social assessments on patients. The mean amount of time spent conducting social assessments was 8% (See Table 29).

Percent Time Spent Performing Social Assessments	Frequency	Cumulative Frequency	%	Cumulative Percent
0	17	17	8.63	8.63
1 - 10%	157	174	79.69	88.32
11 - 20%	18	192	9.14	97.46
21 - 30%	4	196	2.03	99.49
31 - 40%	0	196	0	99.49
41 - 50%	1	197	.51	100.00

Mean = 8% of total discharge planning activities

N = 197 hospitals

Table 29. Percent Time Spent Performing Social Assessments.

Discharge Planning Rounds

Thirteen percent of the hospitals reported that the discharge planning staff did not participate in discharge planning rounds. Of those hospitals that had discharge planning rounds, an average of 8% of the time was spent involved with rounds (See Table 30).

Percent Time Spent In Discharge Planning Rounds	Frequency	Cumulative Frequency	%	Cumulative Percent
0	26	26	13.20	13.20
1 - 10%	138	164	70.05	83.25
11 - 20%	28	192	14.21	97.46
21 - 30%	3	195	1.52	98.98
31 - 40%	2	197	1.02	100.00

Mean = 7.7% of total discharge planner time

N = 197 hospitals

Table 30. Percent Time Spent In Discharge Planning Rounds.

Functional Assessments

Thirteen percent of the hospitals indicated that the discharge planners did not spend time performing functional assessments. The hospitals with discharge planning staff who performed functional assessment spent an average of 6.2% to this activity (See Table 31).

Percent Time Spent Performing Functional Assessments	Frequency	Cumulative Frequency	%	Cumulative Percent
0	26	26	13.20	13.20
1 - 10%	160	186	81.20	94.42
11 - 20%	11	197	5.58	100.00

Mean = 6.2% of total discharge planning activities

N = 197 hospitals

Table 31. Percent of Time Spent Performing Functional Assessments.

Physical Assessments

Fifteen percent of the hospitals reported that discharge planning staff did not perform physical assessments on patients. An average of 6% of discharge planners' time was spent performing physical assessments in the hospitals where this assessment was performed (See Table 32).

Percent Time Spent Performing Physical Assessments	Frequency	Cumulative Frequency	%	Cumulative Percent
0	30	30	15.23	15.23
1 - 10%	160	190	81.22	96.45
11 - 20%	7	197	3.55	100.00

Mean = 5.9% of total discharge planning time

N = 197 hospitals

Table 32. Percent Time Spent Performing Physical Assessments.

Financial Assessments

Eleven point seven percent of the hospitals reported that the discharge planners did not spend time performing financial assessments. Of those hospitals that provided financial assessments for patients, the mean amount of time spent on this activity by the discharge planners was 5.9% (See Table 33).

Percent Time Spent Performing Financial Assessments	Frequency	Cumulative Frequency	%	Cumulative Percent
0	23	23	11.68	11.68
1 - 10%	168	191	85.27	96.95
11 - 20%	4	195	2.03	98.98
21 - 30%	2	197	1.02	100.00

Mean = 5.9% of total discharge planning time

N = 197 hospitals

Table 33. Percent Time Spent Performing Financial Assessments.

Psychological Assessments

Sixteen percent of the hospitals responded that staff did not perform psychological assessments on patients. The mean amount of time spent providing this activity by the remaining hospitals was 5.6% (See Table 34).

Percent Time Performing Psychological Assessments	Frequency	Cumulative Frequency	%	Cumulative Percent
0	31	31	15.74	15.74
1 - 10%	157	188	79.69	95.43
11 - 20%	8	196	4.06	99.49
21 - 30%	1	197	.51	100.00

Mean = 5.6% of total discharge planning time

N = 197 hospitals

Table 34. Percent of Time Spent Performing Psychological Assessments.

Other Services

Seventy-three percent of the hospitals reported that the discharge planning staff did not spend time providing other discharge planning services. The mean amount of time spent by discharge planners performing other services was 4.6% (See Table 35).

Percent Time Spent Providing Other Services	Frequency	Cumulative Frequency	%	Cumulative Percent
0	143	143	72.59	72.59
1 - 10%	35	178	17.77	90.36
11 - 20%	10	188	5.07	95.43
21 - 30%	3	191	1.52	96.95
31 - 40%	3	194	1.53	98.48
41 - 50%	3	197	1.52	100.00

Mean = 4.6% of total discharge planning activities

N = 197 hospitals

Table 35. Percent of Time Spent Providing Other Services.

Form Completion

Fifty-nine percent of the hospitals indicated that the discharge planners did not assist with form completion. The remaining hospitals had staff who spent an average of 1.8% of their time assisting patients with form completion (See Table 36).

Percent Time Spent Assisting With Form Completion	Frequency	Cumulative Frequency	%	Cumulative Frequency
0	116	116	58.59	58.59
1 - 10%	79	195	39.89	98.48
11 - 20%	1	196	.51	98.99
21 - 30%	1	197	.51	100.00

Mean = 1.8% of total discharge planning time

N = 197 hospitals

Table 36. Percent of Time Spent Assisting with Form Completion.

Hiring Staff

Seventy-four percent of the hospitals indicated that their discharge planning staff did not hire staff for patients. There was a mean of 1.3% time spent on hiring staff for patients among the hospitals who provided this service (See Table 37).

Percent Time Spent Hiring Staff for Patients	Frequency	Cumulative Frequency	%	Cumulative Percent
0	147	147	74.24	74.24
1 - 10%	49	196	24.75	99.49
11 - 20%	1	197	.51	100.00

Mean = 1.3% of total discharge planning time

N = 197

Table 37. Percent Time Spent Hiring Staff for Patients.

(See Figure 16 for a graphic representation of the distribution of the most frequent discharge planning activities, and Figure 17 for the least frequent discharge planning activities).

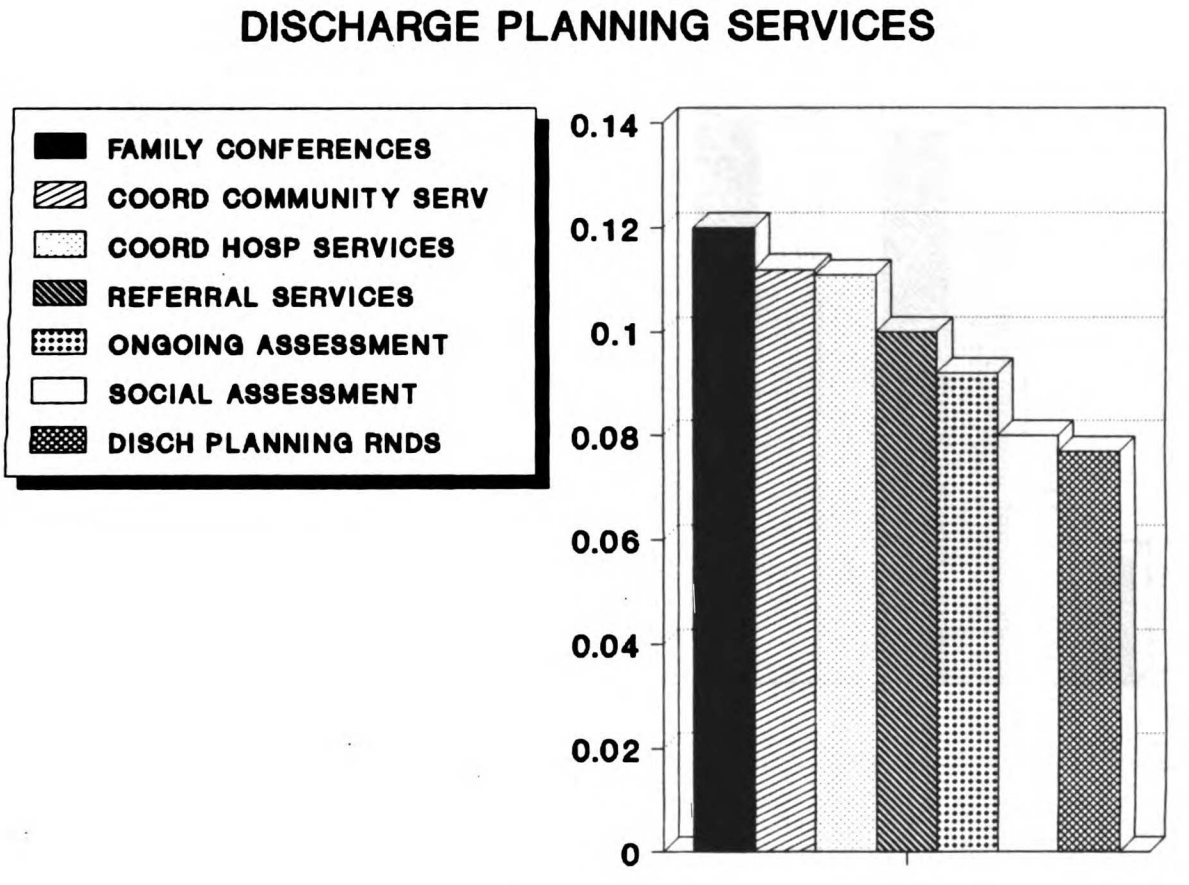

Figure 16. Most Frequent Discharge Planning Activities

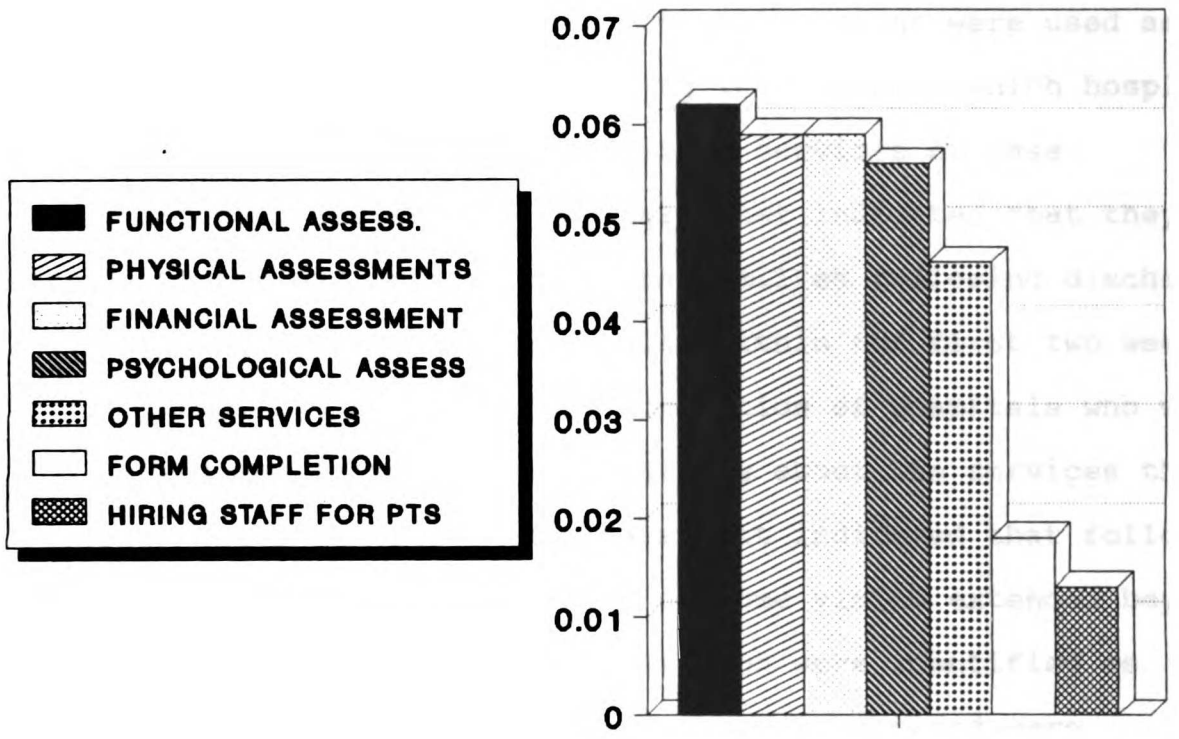

Figure 17. Least Frequent Discharge Planning Activities

DISCHARGE PLANNING OUTCOMES

Post Discharge Follow-up Services

All hospitals were asked if discharged patients receive follow-up contact in the form of phone calls, home visits, or facility visits in the event that patients were placed in long term care facilities. These questions were used as the basis for preliminary screening to determine which hospitals offer expanded discharge planning services or case management services. Hospitals that indicated that they contacted patients or patients families following discharge by phone or through home visits within the first two weeks of discharge comprised the population of hospitals who were called and asked further questions about the services that they provide. Those hospitals that indicated that follow-up services such as phone calls or home visits extended beyond two weeks following hospitalization were identified as possibly offering case management services and were contacted and asked additional questions about the case management services that they offered. The hospitals' responses to the questions concerning follow-up after discharge will be discussed in the following section.

Follow-up Discharge Planning Services

All hospitals in the study were asked if they had follow-up contact with patients. Fifty-eight percent of the respondents indicated that they did not contact patients following discharge from the acute care setting. Forty-two

percent of the respondents indicated that they contacted patients following discharge (see Figure 18).

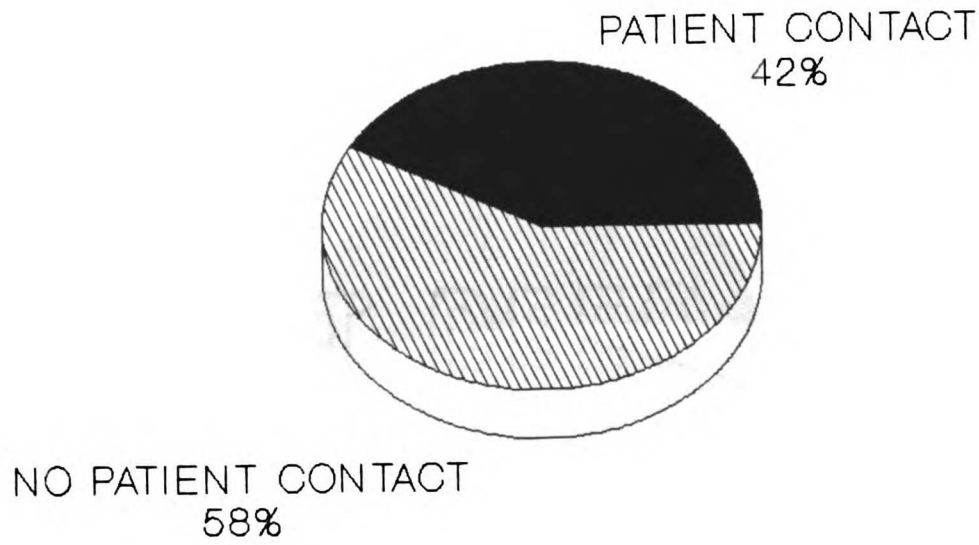

Figure 18. Percent of Hospitals Providing Follow-up Services to Patients.

Phone Calls

A second question required hospitals to indicate whether or not they made phone calls to patients after they are discharged from the acute care hospital. Forty-two percent of the hospitals responded that they made follow-up

phone calls to patients after discharge. Six percent of the hospitals indicated that they did not call patients, fifty-three percent answered that the question was not applicable, as they had already indicated in the previous question that they did not provide follow-up discharge planning services of any kind (see Figure 19).

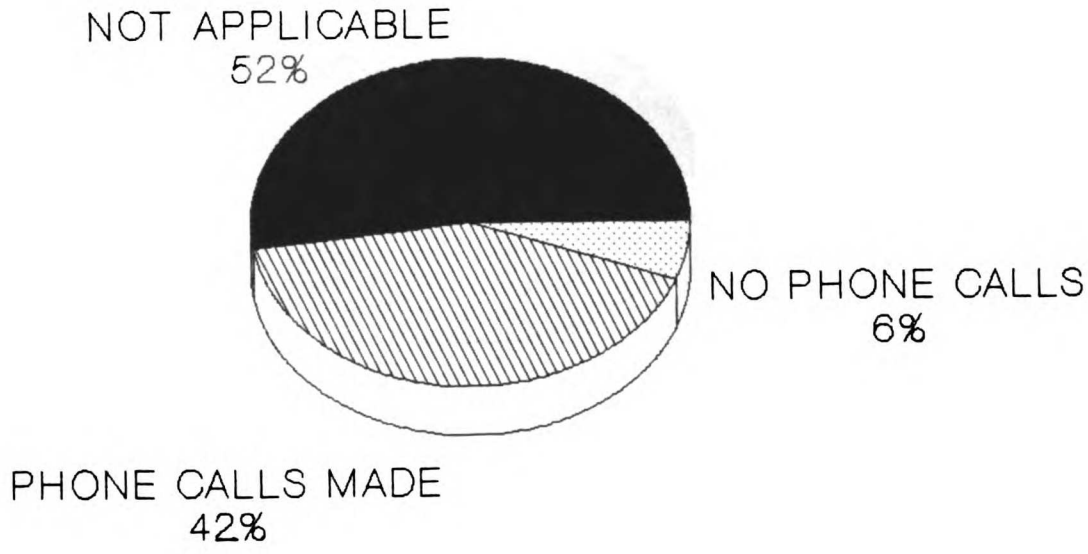

Figure 19. Percent of Hospitals That Contact Discharged Patients by Phone

Home Visits

Six percent of the respondent hospitals had discharge planning staff who made follow-up home visits. These visits excluded referrals made to home health nurses for skilled nursing visits following discharge, and included only those

visits made to discharge hospital patients by the discharge planning staff. Forty-two percent of the hospitals responded that their discharge planning staff did not make follow-up visits to discharged patients, and 52% of the hospitals indicated that the question was not applicable, as they provided no follow-up services (see Figure 20).

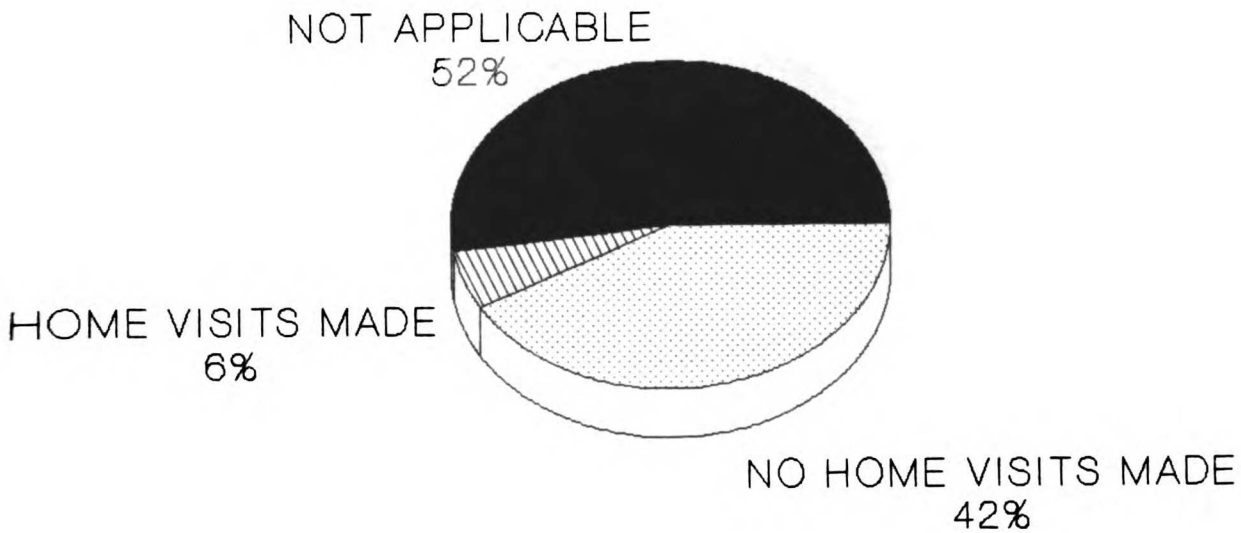

Figure 20. Percent of Hospitals With Discharge Planners Who Make Home Visits

Facility Visits

Eleven percent of the hospitals had staff who made facility visits. Of those hospital discharge planning directors who were contacted by phone for further questioning, all of them indicated that facility visits were not made routinely following individual patient discharge, but that long term care and board and care facilities were

visited, on the average, between one and four times per year. The purpose of these visits was to check on the facility's appearance, meet with the staff of the facilities, and to maintain a rapport with the facilities the hospital discharge planners often used for patient referrals (see Figure 21).

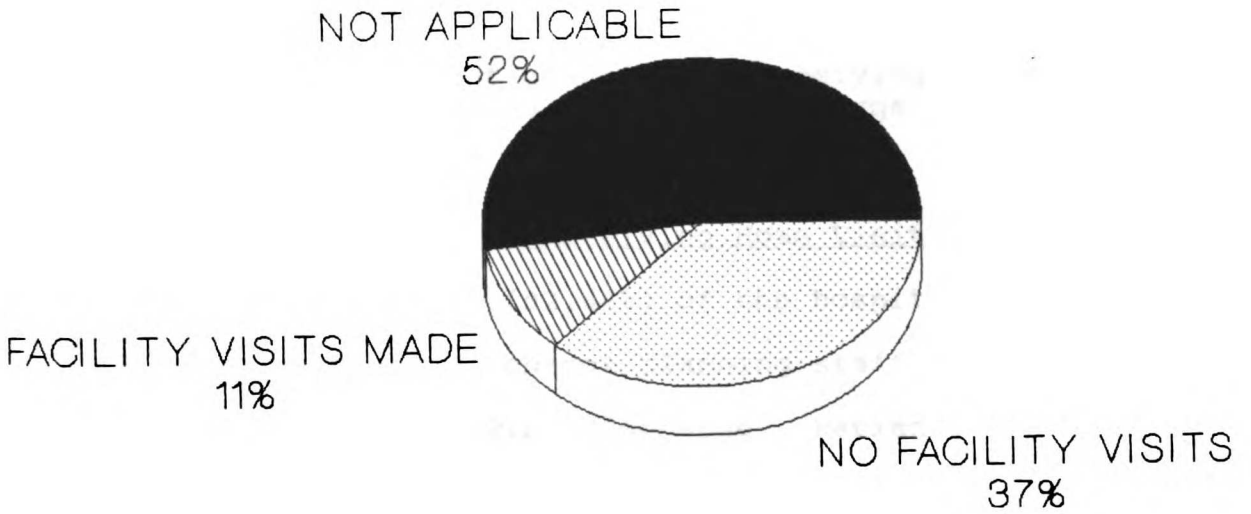

Figure 21. Percent of Hospitals That Make Facility Visits.

Percent of Patients Receiving Phone Calls

Because one hundred and twenty hospitals provided no follow-up services, they constituted the majority of the hospitals (59.11%) answering the question concerning the percentage of patients who received phone calls following discharge (See Table 38).

Percent of Patients Receiving Phone Calls	Frequency	Cumulative Frequency	%	Cumulative Percent
00	120	120	59.11	59.11
.01 - .05	26	146	12.81	71.92
.10 - .25	30	176	14.78	86.70
.30 - .75	15	191	7.39	94.09
.80 - 1.0	12	203	5.91	100.00

N = 203 hospitals

Table 38. Percent of Patients Receiving Phone Calls Following Hospital Discharge

Percent of Patients Receiving Home Visits

The majority (92.68%) of the hospitals in the study did not have their discharge planning staff visit patients in their homes following discharge. Patients who were identified as requiring home visits were referred to home health agencies for short term, intermittent visits by nurses, physical therapists, home health aides, social workers, speech or occupational therapists, as reimbursed by Medicare and other third party payers.

Percent of Patients Receiving Facility Visits

One hundred and eighty two hospitals (89.22%) did not have staff who made facility visits. Two hospitals reported that the staff visited 80% of the facilities where discharged patients were placed.

Average Length of Time Follow-up Extends

Of the 204 hospitals responding to the question of how long patient follow-up expends following discharge, 53% indicated that no follow-up of any kind was provided for discharged patients. Only 7% of the hospitals reported that they maintained contact with patients for 22 days or more following discharge (See Figure 22).

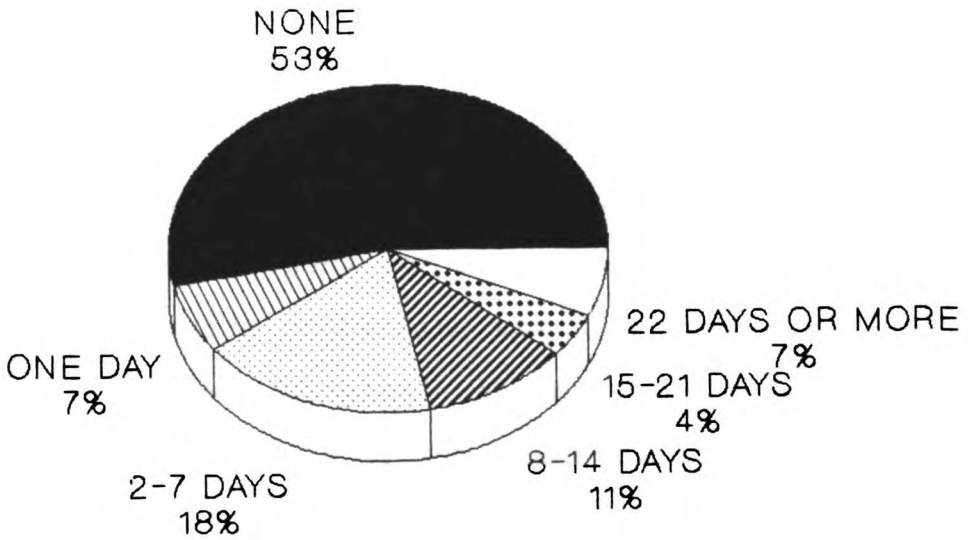

Figure 22. Average Length of Time Follow-up Extends.

Expanded Discharge Planning

Follow-up Telephone Calls

Hospitals were identified for inclusion in the expanded discharge planning telephone survey section of the study based upon the response to the questions that ask if patients were contacted by hospital staff following discharge. The patient contact could be by phone, home visit, or facility visit. Home visits conducted by home health staff for skilled nursing needs were excluded from this group unless the discharge planning department or another service within the acute care hospital was also monitoring the patients' condition following hospital discharge. If there was close communication and follow-up between the home health agency and the discharge planning department, the hospital was included in the expanded discharge planning category for a follow-up phone call. In the event of confusion concerning the discharge planning services provided by a hospital, the hospital's discharge planning or social service director was contacted for further clarification of the program.

A total of 80 hospitals were called to verify the discharge planning services offered. From this number, 68 hospitals were identified as offering expanded discharge planning services following patient discharge. Additional information asked during the phone survey included the following:

Structure:

1) What classification of staff made the contact with the patient;

Process:

2) How patients were selected for follow-up contact;

3) The criteria that was used to identify which patients were considered high risk;

4) What patients were asked when they were called;

5) If any thing else was done on patient follow-up;

6) The primary purpose of the follow-up contact;

Outcome:

7) The percent of patients who were contacted by phone;

8) The percent of patients who were received home visits;

9) The percent of patients who received facility visits;

10) The length of time that follow-up extended;

11) If the patient contact information was maintained with the patient identified;

12) The percent of readmissions followed; and

13) If patients were readmitted, were the records checked to determine if the patient was contacted following discharge.

The following section describes the expanded discharge planning phone survey information.

EXPANDED DISCHARGE PLANNING STRUCTURE

The expanded discharge planning phone survey included information already known about each hospital from the initial mailed survey, including the hospital's name, hospital location, the name, title and phone number of the contact person who completed the discharge planning and case management survey, the hospitals' size, and profit status.

Geographic Distribution

The hospitals with expanded discharge planning programs were distributed throughout the state with the highest percentage in the Northern Health Service Area (HSA), and the smallest percentage in the Golden Empire (Region 2), the North Bay (Region 3), and West Bay (Region 4). The remaining hospitals with expanded discharge planning programs were evenly distributed throughout the state (See Table 39).

Health Service Area	Number of EDP Hospitals	Percent of Total Hospitals In HSA
1. Northern	8	26%
2. Golden Empire	2	9%
3. North Bay	1	8%
4. West Bay	2	8%
5. Alameda/Contra Costa	3	13%
6. North San Joaquin	4	19%
7. Santa Clara County	2	17%
8. Mid Coast	2	15%
9. Central California	6	19%
10. Ventura/Santa Barbara	2	13%
11. L.A. County	20	16%
12. Inland Counties	6	18%
13. Orange County	6	18%
14. San Diego/Imperial	4	14%
Total	68	

Table 39. Distribution of Hospitals With Expanded Discharge Planning by Health Service Area.

Thus the hospitals in the North and West Bay Area, and Golden Empire Regions were underrepresented with hospitals that provide expanded discharge planning services to patients (See Figure 23).

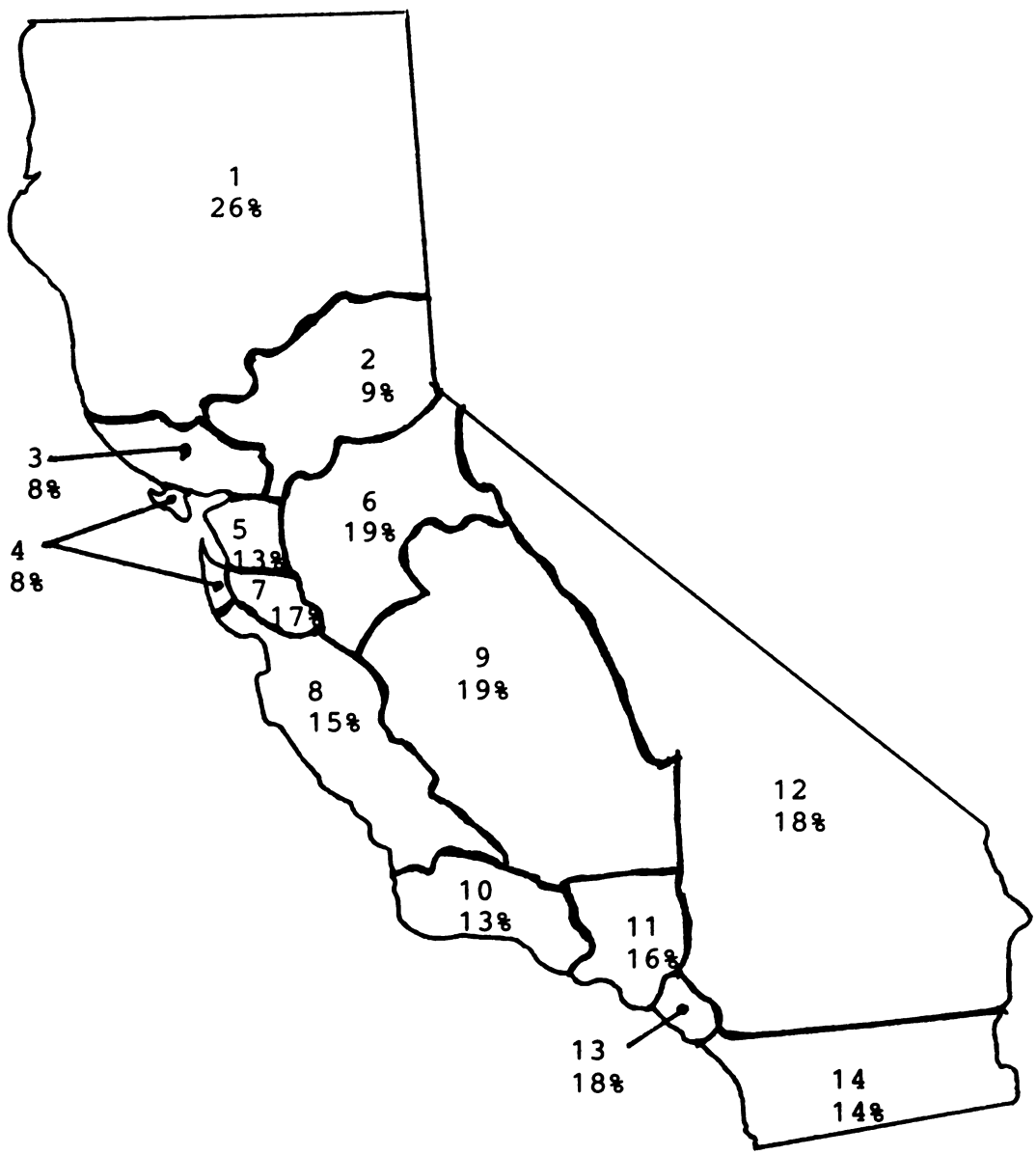

Figure 23. Geographic Distribution of Expanded Discharge Planning Programs

Hospital Size

The 68 hospitals with expanded discharge planning programs ranged in size from 23 to 647 beds, with a mean of 193 beds. There was an even distribution among the different sized hospitals, with the exception of the University Hospitals of which there were none (See Table 40).

Hospital Size	<100 Beds	101-200 Beds	201-400 Beds	>400 Beds	Univ Beds
Number of Hospitals With EDP	23	18	20	7	0
Percent of Total Hospitals in Population	17%	16%	17%	16%	

Table 40. Size of Hospitals With Expanded Discharge Planning Programs.

Profit Status

Seventy-nine percent of the hospitals with expanded discharge planning services fell within one of the non-profit categories. Twenty percent of the hospitals were profit corporations (See Table 41).

Profit Status	Frequency	Total Hospitals Eligible	Percent of Total Eligible CA Hosps
NONPROFIT:			
Nonprofit Corp.	19	105	18%
Other Nonprofit	7	29	24%
Kaiser	3	24	13%
Church Nonprofit	13	56	23%
PROFIT:			
Profit Corp.	14	113	12%
Prof. Partnership	0	9	0
PUBLIC:			
Hospital District	8	49	16%
County	4	30	13%
Univ. Nonprofit	0	5	0
Total	68		

N = 68 hospitals

Table 41. Profit Status of Hospitals Offering Expanded Discharge Planning.

Thus the profile of hospitals with expanded discharge planning programs tend to be non-profit or public, large hospitals, located in Central or Southern California.

Classification of Staff Who Made The Follow-up Contact

Each director of discharge planning or social work was asked the classification of staff who made the follow-up contact with the patients. The distribution of classification of staff is shown in Table 42.

Classification of Staff	Percent of EDP Hospitals
Discharge Planners/ Social Workers	70%
Non-Professional Volunteers	13%
Other Staff	9%
Secretarial Staff	3%
Home Health Liaison Nurse	3%
Guest Relations Staff	1%
Director of Nurses	1%

Table 42. Classification of Staff Who Made the Expanded Discharge Planning Follow-up Contact.

EXPANDED DISCHARGE PLANNING PROCESSES

How Patients Are Selected for Follow-up

All of the directors of discharge planning or social work from the 68 hospitals that offered expanded discharge planning services were asked during the phone survey, how they determined which patients would receive follow-up contact from the discharge planning staff. The selection criteria used varied between hospitals (See Table 43).

Criteria For Post-Discharge Follow-up	Percent of EDP Hospitals
Non-random, All High Risk Patients	69%
Other Criteria Used	15%
Random Selection from High Risk Group	9%
Random Selection of All Patients	4%
Non-random selection of All Patients	3%

Table 43. Criteria Used For Identification of Patients For Post-Discharge Follow-up.

The 15% of the hospitals who used other criteria to identify patients for post discharge follow-up used a variety of criteria. These criteria included patients who:

1. Were on Medicare;
2. Were receiving services at home following discharge;
3. Were receiving services from non-hospital related agencies;
4. Had joint replacements, such as total knees or total hip replacements;
5. The discharge planner had difficulty locating services for the patient;
6. Were hospitalized on specific units in the hospital, such as oncology, orthopedics or cardiac units;

8. Received home health care services or those patients identified who went home against the advice of the discharge planner;

9. Were discharged over the weekend, or any patients who were discharged unexpectedly. (See Figure 24 for graphic representation).

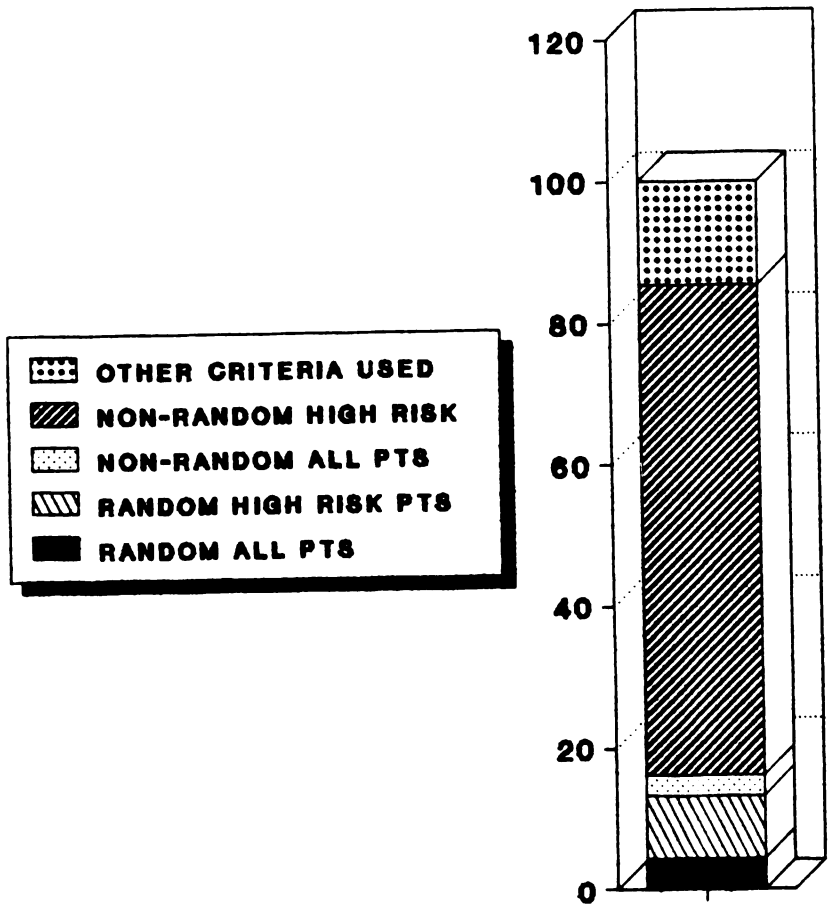

Figure 24. How Patients Were Selected to Receive Expanded Discharge Planning Services.

Sixty-nine percent of hospitals contacted patients identified as high risk following hospital discharge. Each hospital used different criteria to define "high risk" status.

High Risk Patients

The primary concern among the discharge planning directors was for patients who were thought to be at risk for poor outcome or readmission to the acute care setting. Fifty-six percent of the hospitals used age, diagnosis, the existence of identified problems, or other criteria as determinants of patients at high risk for the development of problems following discharge.

The criteria used for selection were broken down as follows:

Criteria Used To Determine High Risk Status for Follow-up	Frequency	%	Cumulative Percent
Not Applicable	20	29.41	29.41
Age	4	5.88	35.29
Diagnosis	1	1.47	36.76
Problems Identified	3	4.41	41.18
Age & Diagnosis	2	2.94	44.12
Age, Diagnosis, Problems	19	27.94	72.06
Other Criteria	19	27.94	100.00

N = 68 hospitals

Table 44. Criteria Used to Determine High Risk Status

The "Other Criteria" was used by 28% of the hospitals and included a variety factors, including patients:

1. For whom durable medical equipment (D.M.E.) had been ordered;
2. Who received home health services;
3. On Medicaid who had social problems;
4. Over the age of 70 who lived alone;
5. Who returned to their homes against the suggestion of the social worker or discharge planner;
6. With complicated discharges and little or no support at home; and
7. Who were believed to be non-compliant with prescribed care.

Sixteen percent of the discharge planning directors indicated that they did not have specific written criteria stating which patients would receive expanded discharge planning services following hospital discharge. In these hospitals, it was left up to the discretion of each discharge planner or social worker to identify the patients who they thought should be contacted or followed after hospital discharge. (See Figure 25).

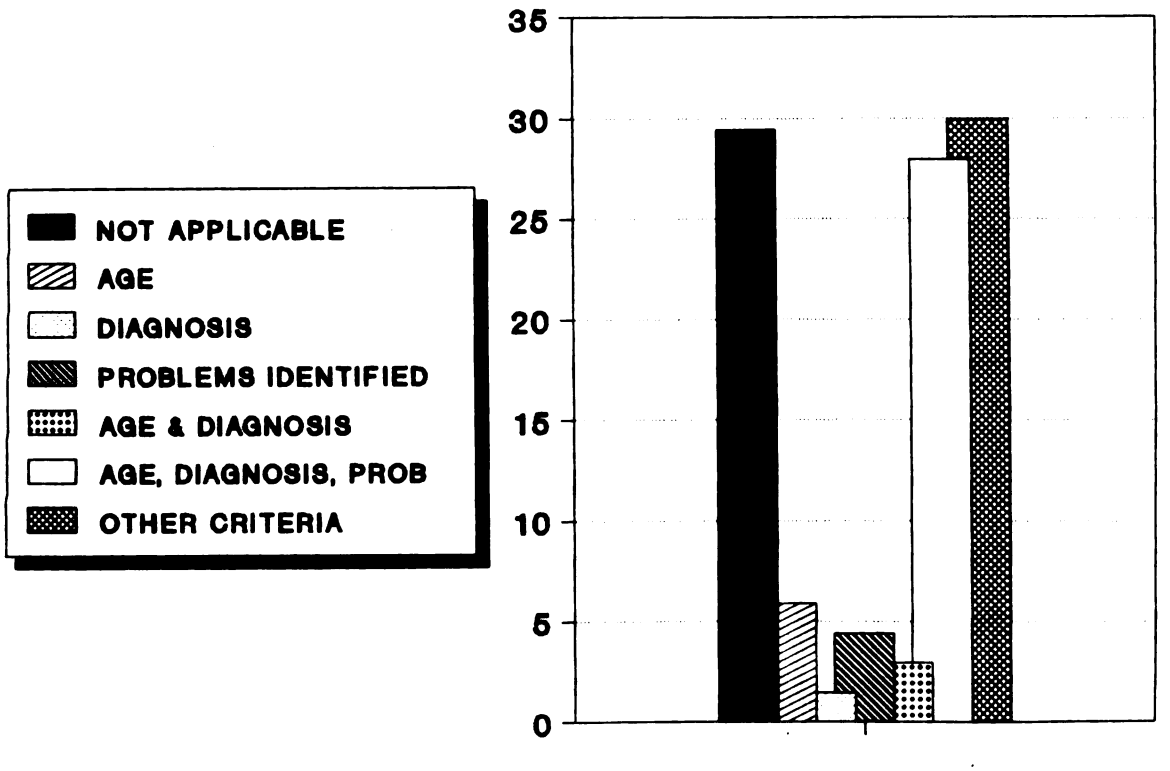

Figure 25. Criteria Used to Determine High Risk Status.

What Patients Were Asked

Because all of the hospitals with expanded discharge planning services made phone contact to a designated group of patients, the directors of the discharge planning or social service departments were asked what their staff asked patients when they called (See Table 45). Ten percent of

the hospitals reported that the patients were asked how they were doing. Six percent of the hospitals had their staff ask if the patient was experiencing any problems. Ten percent of the hospitals asked if the services that were ordered for the patient had arrived, such as home health, durable medical equipment, meals on wheels, or other services that were ordered. The majority of the hospital discharge planning directors indicated that the staff who made the phone contact with the patients asked all of these questions:

1. How they were doing;
2. If there were any problems; and
3. If the services that were ordered had arrived.

Seven percent of the hospitals indicated that other questions were asked. These included patient satisfaction with the care received in the hospital and by the discharge planner or social worker; if the resources ordered had met the patient's needs; had the patient kept the scheduled follow-up medical appointment; and if the patient had any complaints about the care received at home or in the facility. Three percent of the hospitals responded that they occasionally contacted the home health agency that was providing services to see how the patient was progressing, in addition to calling the patient directly.

What Patients Are Asked When Called Following Discharge	Frequency	%	Cumulative Percent
How They Are Doing	7	10.29	10.29
Any Problems	4	5.88	16.18
Did Service Arrive	7	10.29	26.47
All of the Above	45	66.18	92.65
Other	5	7.35	100.00
Total	68 hospitals		

Table 45. What Patients Are Asked When Called Following Discharge.

Other Follow-up

Forty-nine percent of the hospitals indicated that no other services were offered to patients after discharge. Fifty-one percent of the hospitals reported that the discharge planning or social service staff intervened if problems were identified. If non-professional staff made the call to the patients and identified that there was a problem, the staff person referred the problem to the discharge planner or social worker. Additional referrals were made by the discharge planner or social worker as needed, based upon the nature of the problem.

EXPANDED DISCHARGE PLANNING OUTCOMES

The directors of the expanded discharge planning programs were all asked questions about the type of discharge contact made and the percentage of patients who

received the services. The services included phone calls, home visits, and facility visits.

Follow-up Phone Calls

As stated previously, all of the hospitals with expanded discharge planning services made follow-up phone calls to at least some of their patients following discharge from the acute care hospital setting. The percentage of patients who received phone calls following discharge varied among the hospitals, with a range between 1% of patients to 100% of patients, with a mean of 14% (See Table 46).

Percent of Patients Who Receive Follow-up Phone Calls	Frequency	%	Cumulative Percent
.01 - .04	9	13.24	13.24
.05 - .15	23	33.82	47.06
.16 - .35	21	30.88	77.94
.36 -1.00	15	22.06	100.00

N = 68 hospitals
Mean = 14%

Table 46. Percentage of Discharged Patients Receiving Follow-up Phone Calls

Follow-up Home Visits

Thirteen percent of the 68 hospitals that provided expanded discharge planning services had discharge planning staff who made home visits. Several hospitals in the study indicated that they referred patients with skilled nursing

needs to a home health or visiting nurse service for follow-up. The 13% of the hospitals that were identified as providing follow-up home visits were those who visited patients in their homes following hospital discharge to evaluate the discharge plan and to assess any further services that might be needed. No skilled nursing interventions were provided during these visits. The remaining 87% of the hospitals that provided expanded discharge planning services indicated that they did not make home visits to patients following hospital discharge.

Of the 13% of the hospitals that had discharge planners who made home visits, the percentage of patients who received these visits ranged from .5% to 30% of the discharged patients, with a mean of 11%. All directors of discharge planning in these hospitals indicated that the selection of which patients received home visits was made by the individual discharge planners, based upon the needs and problems of the individual patients. The distribution of the percentage of home visits made is seen in Table 47).

Percent of Patients Receiving Home Visits	Frequency	%	Cumulative Percent
0	59	86.76	86.76
.005	1	1.47	88.24
.02	1	1.47	89.71
.05	5	7.35	97.06
.20	1	1.47	98.53
.30	1	1.47	100.00

N = 68 hospitals

Mean = 11%

Table 47. Percentage of Discharge Patients Receiving Home Visits

Facility Visits

Nineteen percent of the hospitals indicated that their discharge planners visited facilities to which they discharged patients on a regular basis. Eighty percent of the hospitals that offered expanded discharge planning services did not visit the facilities where their patients were transferred. Of the 19% of the hospitals with staff who visited facilities, the percentage of patients in facilities that were visited by the discharge planners ranged from .1% to 35%, with a mean of 12% (See Table 48).

Percent of Patients Visited In Facilities	Frequency	%	Cumulative Percent
0	55	80.88	80.88
.001	2	2.94	83.82
.01	2	2.94	86.76
.02	2	2.94	89.71
.05	3	4.41	94.12
.10	3	4.41	98.53
.35	1	1.47	100.00

N = 68 hospitals

Table 48. Percent of Patients Visited in Facilities by Discharge Planners.

Length of Time Follow-up Extended

The hospital discharge planners were asked in the mail survey and again during the phone survey, when initial patient contact was made following hospital discharge, and the length of time that the discharge planners stayed in contact with patients following patient discharge. Forty-three percent of the hospitals made initial contact with patients between two and seven days following discharge. Seven percent of the hospitals maintained contact with patients for longer than 22 days (See Figure 26).

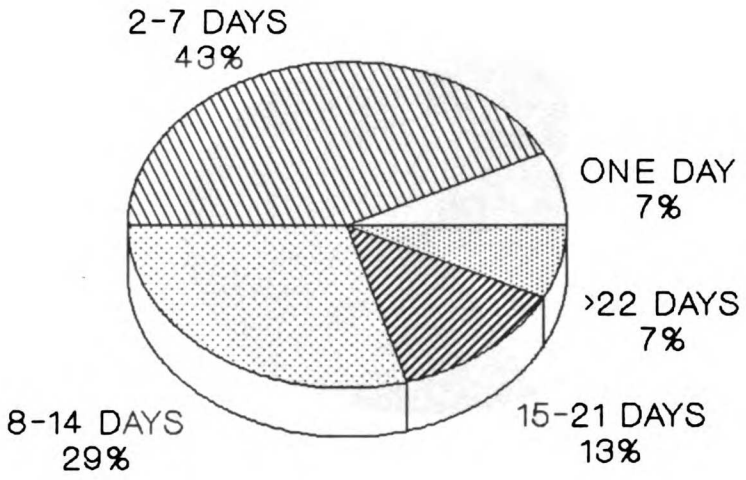

Figure 26. Length of Time That Expanded Discharge Planning Services Extend.

Documentation of Patient Contact

All of the discharge planning directors were asked if the contact with the patient following discharge from the hospital was kept along with the patient's identity. Eighty-two percent of the hospitals indicated that they kept some form of documentation of the patient contact, either on a hospital admission face sheet, in a log book or on a discharge planning work sheet. The 18% of the hospitals in which the discharge planning directors indicated that they did not keep a record of the patient contact, all thought that this type of record was a good idea for future follow-up of the patients (Figure 27).

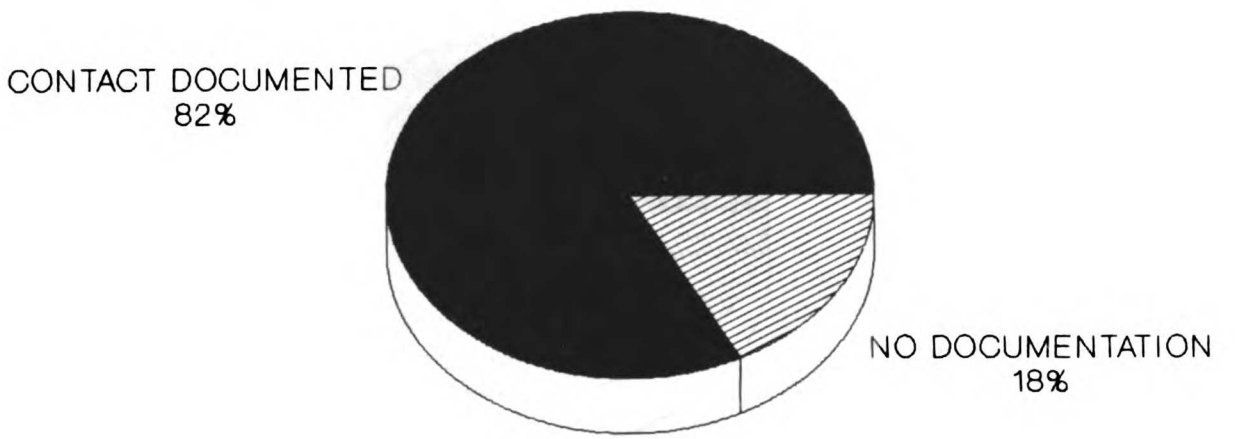

Figure 27. Documentation of Contact With Patients Following Discharge.

Patient Readmission

When patients were readmitted to the hospital, fifty-seven percent of the hospitals reported that they routinely checked their work sheets, log books, or admission face sheets to see if the patient had been contacted following the previous discharge, and determined the status of the patient at the time of follow-up contact (See Figure 28). Forty-three percent of the hospitals with expanded discharge planning programs did not routinely check their records to determine if the patient received contact following discharge.

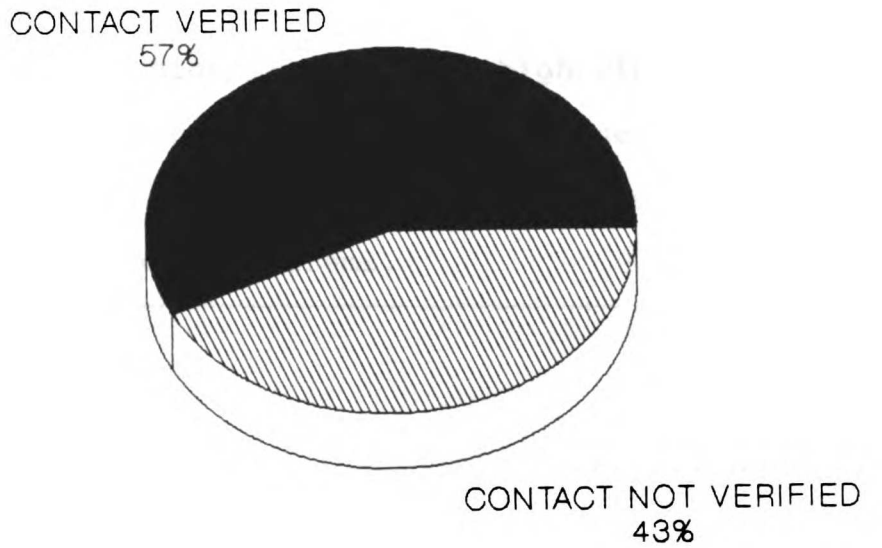

Figure 28. Discharge Contact Verified if Patients are Readmitted.

Purpose of Follow-up Patient Contact

All of the hospitals with expanded discharge planning services were asked what the primary purpose was for the follow-up patient contact. As displayed in Figure 29, 32% of the hospitals contacted patients primarily for quality assurance data collection. These hospitals had chosen either patient satisfaction with hospital care, or completion of the discharge plan as monitors for their unit based quality assurance programs. Thirty-two percent of the hospitals contacted patients primarily to see if the discharge plan was adequate. Fifteen percent of the hospitals contacted only patients identified as high risk

complications to evaluate the patient's status following discharge. Eighteen percent of the hospitals indicated that they contacted a sample of patients including those identified as high risk and not high risk, following discharge to determine if the discharge plan was adequate and they used this information as part of their unit based quality assurance programs.

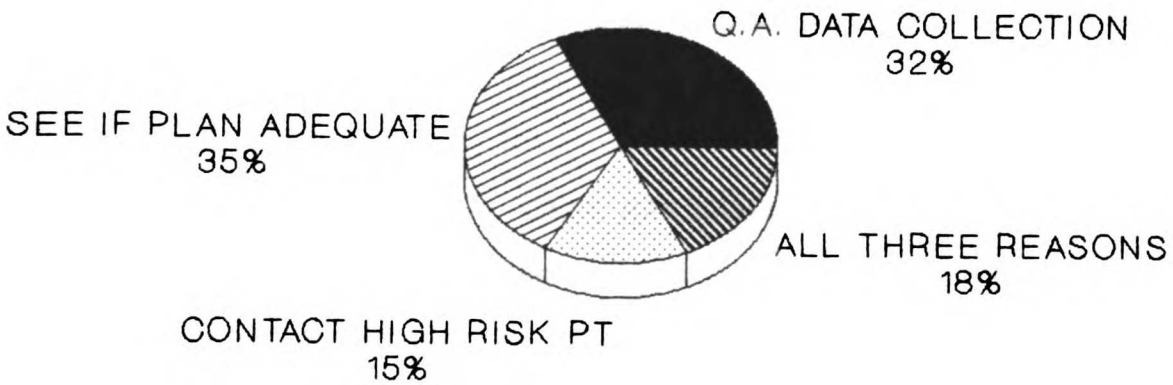

Figure 29. The Primary Purpose of Patient Contact Following Hospital Discharge.

Six hospital discharge planning directors in Southern California reported that due to the advice of a lawyer who had given presentations throughout Southern California, they were minimizing the amount of contact and even considering eliminating contact with patients following discharge from the hospital. The legal advice that they have received was based upon concern for potential liability if the patient had a poor outcome and the hospitals' discharge planners were still involved with the patient following hospital discharge. The assumption made was that the hospital could be named in a law suit if the discharge planner failed to intervene to prevent the problem. The advice was not based on recent or current litigation, but rather on the potential for law suits.

CASE MANAGEMENT

Eleven hospitals were identified as having case management programs that fit the definition for inclusion in this study of case management. These hospitals had programs in which hospital staff remained in contact with either all patients from a specified group of patients, or all of high risk patients following discharge from the acute care setting.

Programs that were identified as "pay-for-service" case management programs not connected with the hospital discharge planning departments were excluded from the study

of case management. One such program was identified in Northern California, and was part of a senior service program for families of seniors residing in the community served by the community hospital, but was not designed for hospitalized patients.

Two Multipurpose Senior Services Programs (MSSP) were identified and were also excluded from the telephone survey. These programs served frail elderly Medicaid clients exclusively in a special program established by the State. The staff of these programs served as brokers for services purchased on behalf of the clients enrolled in the program. These programs also did not have a direct connection with hospitalized patients and discharge planning departments. The case management programs for these eleven hospitals will now be discussed.

CASE MANAGEMENT STRUCTURE

Geographic Distribution

The 11 hospitals identified as offering case management programs were located in 5 of the 14 Health Service Areas (See Figure 30). Fifty-five percent of the hospitals with case management programs were located in the Los Angeles area, but the largest percentage of hospitals with case management were located in the West Bay Area (See Table 49).

Health Service Area	Number of EDP Hospitals	Percent of Total Hospitals In HSA
1. Northern	1	3.2%
2. Golden Empire	0	
3. North Bay	0	
4. West Bay	2	8.3%
5. Alameda/Contra Costa	0	
6. North San Joaquin	0	
7. Santa Clara County	0	
8. Mid Coast	0	
9. Central California	0	
10. Ventura/Santa Barbara	0	
11. L.A. County	6	4.7%
12. Inland Counties	0	
13. Orange County	1	2.9%
14. San Diego/Imperial	1	3.5%
Total	11 hospitals	22.6%

Table 49. Distribution of Hospitals With Case Management Programs by Health Service Area.

Hospital Size

The size of the hospitals varied from one small hospital with 26 beds, to one large county hospital with 2,045 beds. The average size of the hospitals with case management programs was 484 beds. Thus, the average bed size of the hospitals with case management services was much larger than the average for hospitals with traditional discharge planning or expanded discharge planning with average bed sizes of 226 and 193 respectively.

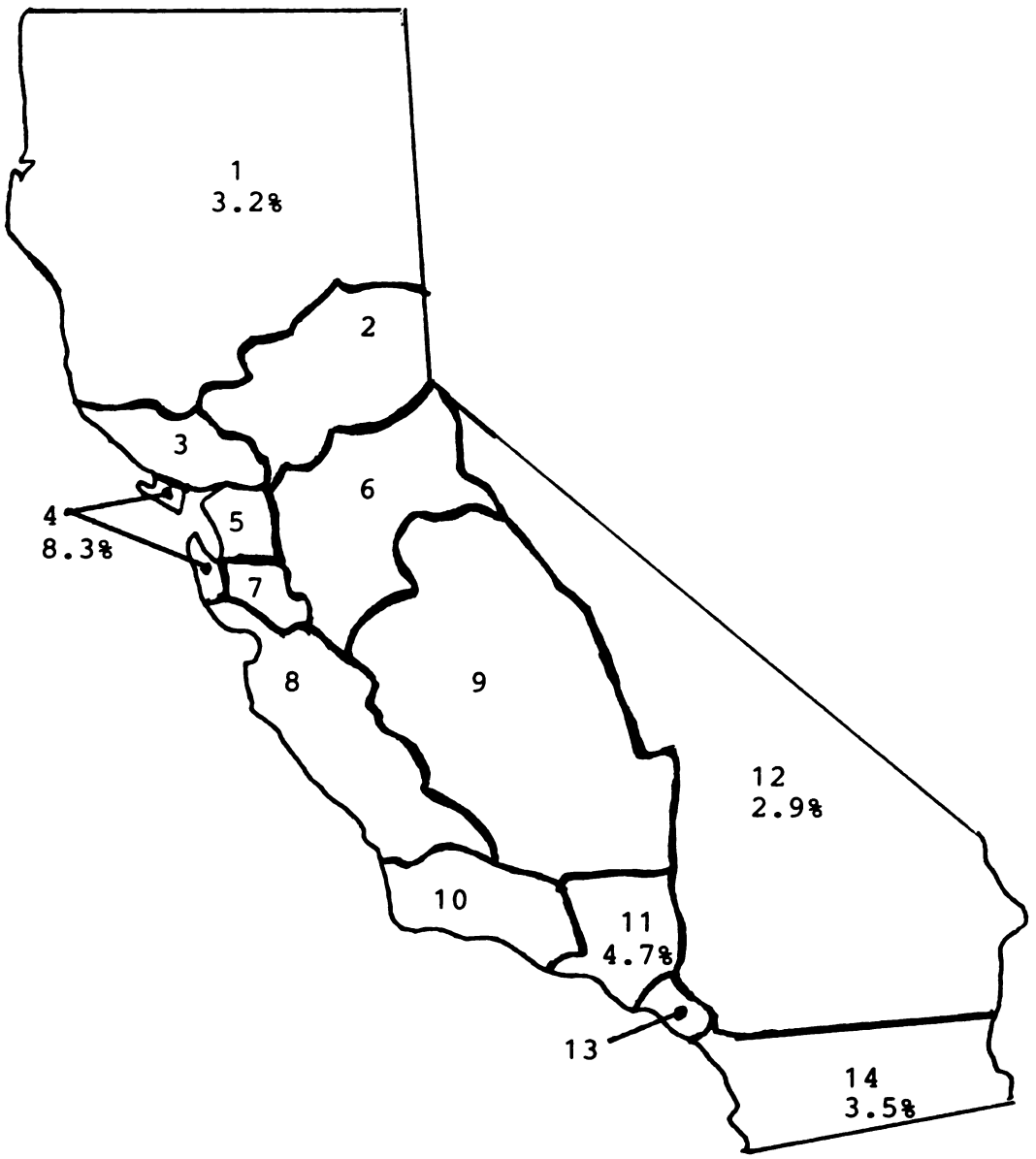

Figure 30. Case Management Program Locations By Health Service Area.

Profit Status

Eighty-two percent of the hospitals with case management were nonprofit, and 18% were public hospitals. None of the hospitals with case management programs were for profit hospitals (See Table 50). The lack of representation of profit hospitals in the sample compared to the total population of eligible hospitals in California might be one explanation for the lack of profit hospitals with case management programs. (See Figure 31 for graphic representation).

Profit Status	Frequency	Total Hospitals Eligible	Percentage of Total Eligible CA Hospitals
NONPROFIT:			
Nonprofit Corp.	5	105	4.7%
Other Nonprofit	1	29	3.4%
Kaiser	1	24	4.1%
Church Nonprofit	1	56	1.8%
PROFIT:			
Profit Corp.	0	113	
Prof. Partnership	0	9	
PUBLIC:			
Hospital District	1	49	2%
County	2	30	6.6%
University Nonprofit	0	5	
Total	11 hospitals		18.5%

N = 11 hospitals

Table 50. Distribution of Profit Status of Case Management Hospitals.

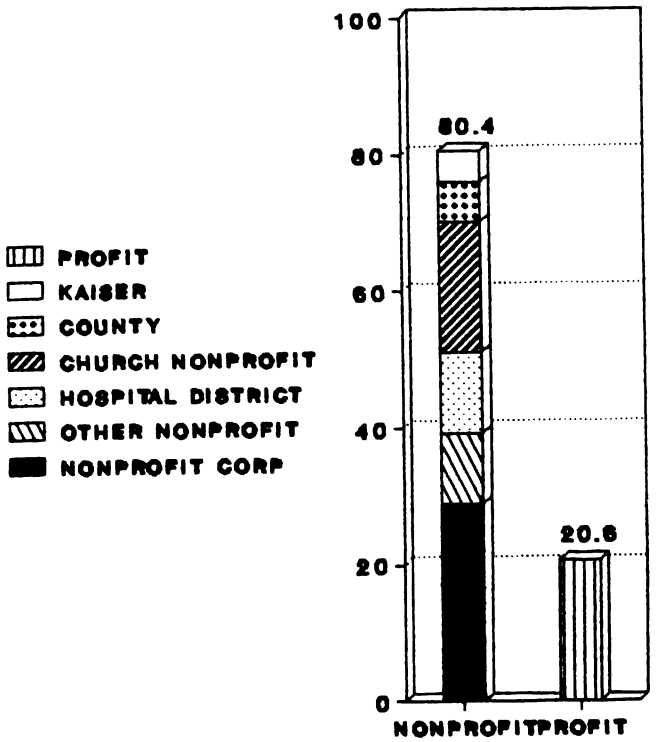

Figure 31. Hospital Profit Status for Hospitals With Case Management Programs

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Educational Preparation of Case Managers

There were a total of 94 case managers employed by the 11 hospitals with case management programs, or an average of 8.5 case managers per hospital program. Sixty-four percent of these case managers were employed by one large county hospital with 2,045 beds. Educational preparation for the case managers mentioned included 24 nurses and 74 non-nurses as case managers. The educational preparation of the nurse and non-nurse case managers was:

Educational Preparation	Frequency	% of Total Case Mgrs.
NURSES:		
Bachelors degree in nursing	9	9.5%
Diploma educated RN	7	7.4%
Associate degree RN	4	4.2%
Masters degree in nursing	4	4.2%
Total	24	25.3%
NON-NURSES:		
Bachelors degree in social work	31	33%
Masters degree in social work	35	37%
Licensed Clinical Social Worker	1	1%
Other education background	3	3%
Total	70	74%

Total = 94 Case Managers

Table 51. Educational Preparation of Case Managers

The three staff with other educational preparation included one case manager with a bachelor's degree in psychology, and two case managers prepared with bachelor's degree or less (see Figure 32). Thus, the overall educational preparation of the case managers was higher than the educational preparation of the traditional discharge planners. However, the non-nurse categories of staff are employed as case managers in greater number than the nurse discharge planners.

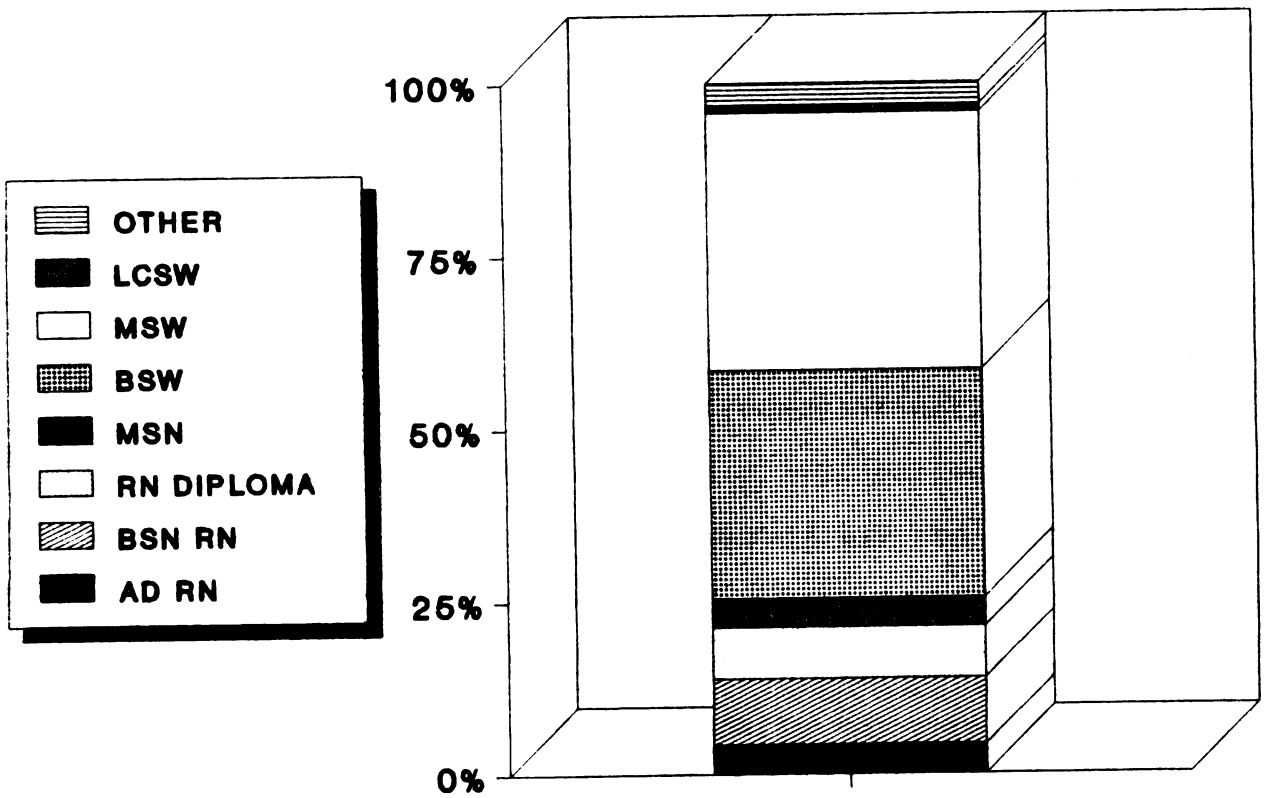

Figure 32. Educational Preparation of the Case Managers

CASE MANAGEMENT PROCESSES

Length of Time Follow-up Extends

All of the 11 hospitals with case management programs followed their case managed patients for longer than 22 days. The length of time that the patients were followed was determined by the individual patients' needs. Forty-five percent of the hospitals responded that the case managed patients were contacted as often as necessary with the number of contacts determined by the case manager.

Frequency of Contact

The case managers in 18% of the hospitals indicated that case managed patients were contacted a minimum of once a week while they were enrolled in the case management program. All of the case management directors surveyed by telephone indicated that the frequency of patient contact increased during the time of individual patient crisis.

The level of patient functioning was the primary factor that the case managers monitored. One of the case management programs referred the elderly case managed patients to a senior center for daily telephone contact. Thirty-six percent of the case management programs terminated at the end of the first month following patient discharge, unless the patient continued to have problems. Patients who were considered high risk for development of problems were followed by the case managers for as long as the services were needed. The decision of which patients

were followed for a long period of time was made by the case managers.

CASE MANAGEMENT OUTCOMES

Information that was obtained from the original survey about the type of patient contact and the percentage of patients who received the contact was verified during the telephone interviews. The type of patient contact that the discharge planning or social service directors were asked about included phone calls, home visits, and facility visits.

Phone Calls

All 100% of the hospitals had phone contact to some of their patients following discharge. The percentage of patients who received phone calls varied among the hospitals, with an average of 71% for all of the hospitals.

Home Visits

Sixty-four percent of the hospitals had staff who made home visits to discharged patients. The percentage of patients who were visited averaged 39%. Thirty-six percent of the hospitals did not make home visits as part of their case management program. The home visits referred to in this question excluded those visits made by staff of home health agencies.

Facility Visits

Only 55% of the hospitals made visits to facilities where their patients had been admitted. An average of 20%

of the patients received facility visits. (See Figure 33 for graphic depiction of patient contact).

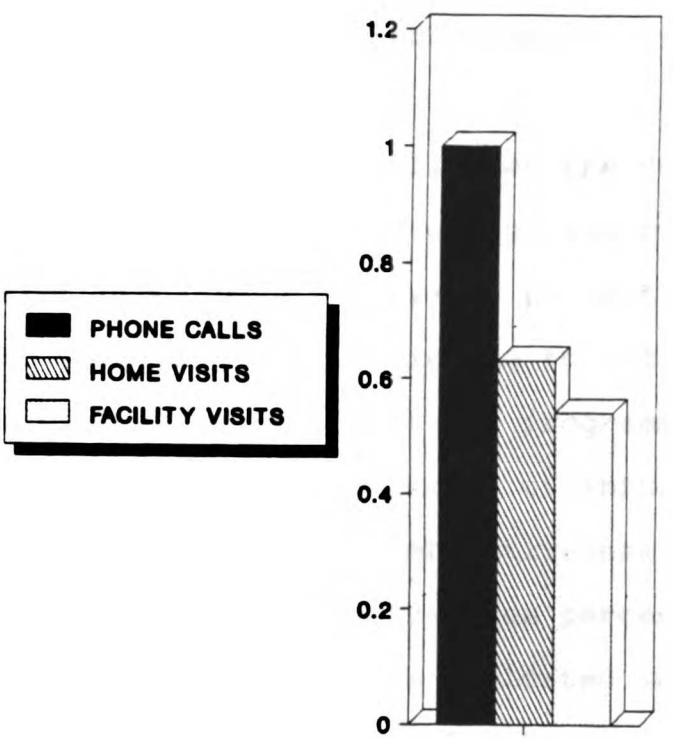

Figure 33. Patient Contact by Case Managers.

Case Management Program Information

Each case management director was asked what information was collected for case management program evaluation. Specific indicators that were asked about included the following:

1. Length of hospital stay
2. Hospital readmissions
3. Admissions to long term care facilities
4. Patient outcome, short term and long term
5. Cost of case management services
6. Quality outcome indicators
7. Other indicators

It was surprising how limited the data collection was among the hospitals for the evaluation of the case management programs. Thirty-six percent of the hospitals answered that they were beginning to collect data for program evaluation, but that the programs were new, and there was an insufficient amount of information available to draw conclusions about the effectiveness of the case management programs. Twenty-seven percent of the case management program directors indicated that the workload of following the case managed patients precluded them from taking the time for data collection for the purpose of program evaluation. Although they all identified that it was problematic to be unable to quantify the advantages of their programs either through verification of financial

savings to their hospitals or through an increase in the quality of the patients' outcomes, they did not collect information to justify the continued operation of the programs.

The information collected by the 11 hospitals for case management program evaluation obtained from the telephone survey will now be presented.

Length of Hospital Stay

Eighty-two percent of the hospitals monitored the length of time that their case managed patients were initially hospitalized prior to discharge, and the remaining hospitals did not collect such data. (See Figure 34).

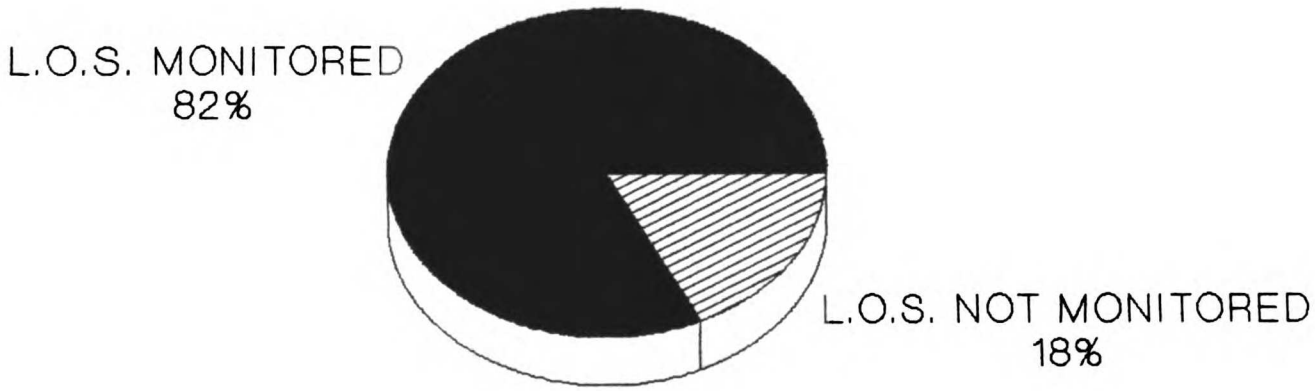

Figure 34. Length of Hospital Stay For Case Managed Patients

Hospital Readmissions

Seventy-three percent of the hospitals monitored the hospital readmissions of the high risk patients who were case managed, and the remaining hospitals did not collect such data. Each of the case management directors in these hospitals agreed that this would be helpful information to have, but that lack of time and available staff precluded the collection and monitoring of this information (See Figure 35).

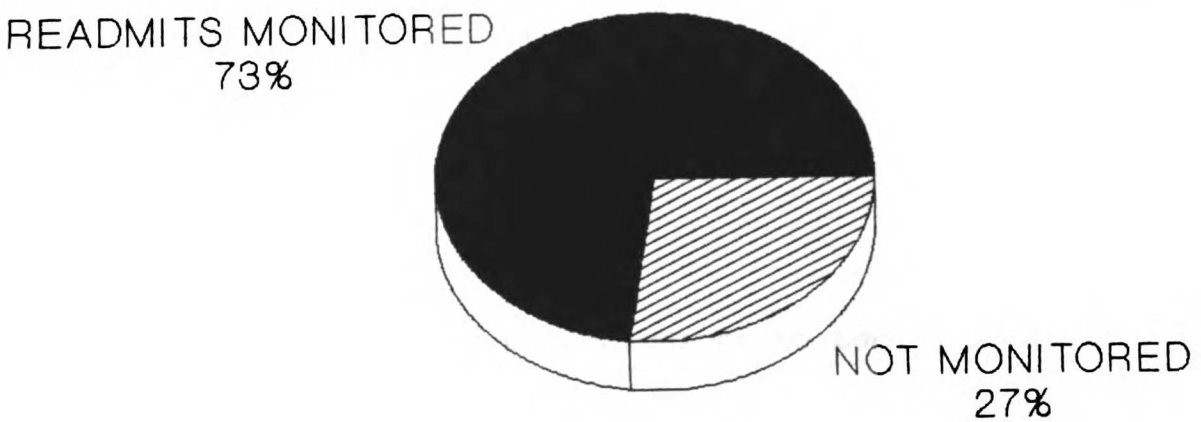

Figure 35. Monitoring of Hospital Readmissions For Case Managed Patients.

Admissions to Long Term Care Facilities

Seventy-three percent of the hospitals collected data on the number of case managed patients who were admitted to long term care facilities, and the remaining hospitals did

not collect such data. Again, the reason given was a stated lack of time and available staff to collect this information (See Figure 36).

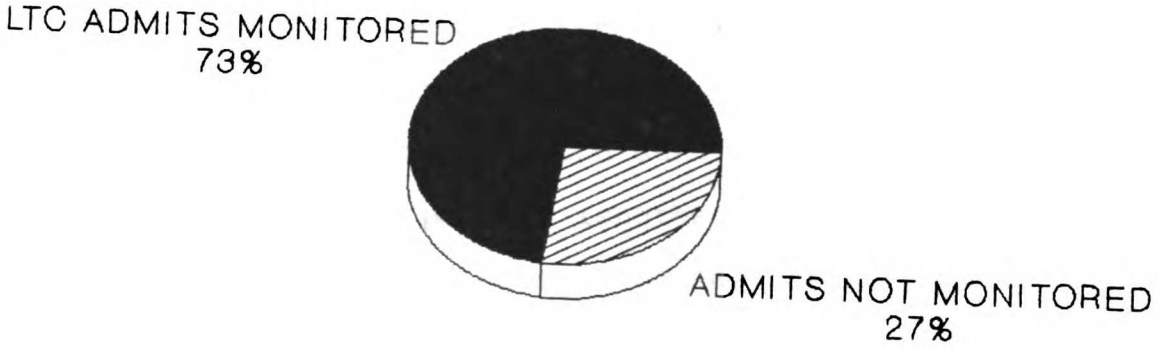

Figure 36. Monitoring of Admissions to Long Term Care Facilities.

Short Term Patient Outcomes

Thirty-six percent of the case management programs collected data on the short term outcome (up to 2 months) of patients who were enrolled in the case management programs. Sixty-four percent of the hospitals with case management programs did not measure even short term outcomes of patients.

Long Term Patient Outcomes

Twenty-seven percent of the programs collected information on the long term outcome (longer than 2 months) of case management patients. The majority of the hospitals (73%) did not measure the long term outcomes of the case managed patients.

Case Management Program Costs

Forty-five percent of the hospitals measured the cost of their case management programs, and the remaining hospitals did not collect such data. Of the hospitals that measured costs, the patient lengths of stay were measured and the direct program costs. One of the hospitals responded that their case management program was not cost effective because the overhead costs of the program exceeded the cost saved by the program. When asked the rationale for the continuation of a non cost effective program, the Director responded that the program was provided as a service by the hospital to residents of their community.

Eighteen percent of the hospitals responded that they measured the cost of the program, but did not collect a sufficient amount of data to determine if the case management programs were cost effective. Specifically, no quantifiable cost data were collected on case managed patients, such as the length of stay, readmissions, or direct costs of the case managers' services. A total of 73% of the Case Management program directors responded that they

did not know if their case management programs were cost effective.

Perceived Benefits of Case Management Program

All of the case management program directors were asked to describe the benefits of their case management programs. Seven primary benefits were described by the directors. These benefits included the following:

1. Decrease hospital readmissions;
2. Promote independent living for elderly living at home;
3. Improve the quality of patient care/outcomes;
4. Provide a community service;
5. Decrease the inappropriate use of the Emergency Department; and
6. Provide patient advocacy.

Unfortunately, because of the lack of outcome measurement among the case management programs, it was not possible to validate these perceived benefits of the case management programs. All of the directors said that the measurement of the programs' impact would be beneficial, but that staff were not available to collect the information. Three of the directors stated that they would be interested in participating in future research studies, especially those that would measure patient outcome as a result of case manager interventions.

The director of the county facility described budget cuts that had occurred in the case management program. During the previous county budgeting process, the director was unable to quantify the success of the case management program because data had not been collected. As a result, the case management program funding was eliminated as being too expensive and not cost effective, even though the director believed that the program had many benefits. Because of this cutback, the Director replaced the laid off case management staff with volunteers who were trained to make contact with high risk discharged patients. The Director then began collecting information on some of the services offered. The focus of the data collection revolved around patient compliance in keeping their post discharge clinic appointments. The information collected revealed that post-discharge contact with patients believed to be at risk for readmission, increased patient compliance at clinic appointments by 28%. The Director considered the increased compliance at appointments to be cost-effective. The assumption was that the patients at risk were seen and treated for problems as outpatients, and that any subsequent readmissions were shorter as the patient's severity of illness was less if the problem was detected early, and money would be saved. No data, however, were available to support these assumptions. Patient readmissions were not monitored. A second assumption made by the Director was

that the clinics functioned more cost effectively when staff productivity was high through the maximization of the volume of patients seen in the clinics, however, no data were available to support this perception.

Although funding for this case management program was reduced the following year, the Director was committed to offering almost the same amount of contact to patients. The major difference in the programs was that the professional, paid staff had been replaced by paraprofessional volunteer staff. Because no outcome criteria was monitored during the time the professional staff held these positions, it was not possible to compare the current data that were collected on the services provided by the paraprofessional staff with the services provided previously by the professional staff.

CHAPTER FIVE

DISCUSSION

Discussion

Findings in Relation to Research Questions

The purpose of this study was to answer several research questions. The mail survey was designed to answer primarily two questions:

1. Which hospitals in California provided traditional discharge planning, expanded discharge planning or case management services?
2. How, why and to whom were the services provided, and to what extent were expanded discharge planning and case management programs developed by hospitals?

Answering the first question was necessary to identify and describe the discharge planning services of hospitals in California. This information was not previously available. No agency or individual was able to provide information on hospital discharge practices for even a sample of hospitals in California.

The identification of the three types of discharge programs and the formulation of definitions for the three types of programs, traditional discharge planning, expanded discharge planning and case management, was necessary to clarify terms for the discharge services. Many hospitals were using the same terms to describe very different programs, leading to confusion among hospitals, discharge planning staff and researchers.

Answering the second question concerning the extent of

implementation of the innovative programs, both expanded discharge planning and case management, was necessary to identify if these programs existed, the location where they had been implemented, to describe these programs, discuss the services provided to patients by the programs, identify the educational preparation of the staff, and to explore the purposes of the programs. Once this second question was answered, hospitals with innovative discharge programs and their locations were identified along with the key hospital staff responsible for the program. This information allowed the telephone interviews to take place. The information obtained through the telephone interviews contributed additional descriptive information about the expanded discharge planning and case management programs.

The similarities and differences between the programs are summarized by structure, process and outcome categories in the section that follows.

STRUCTURE ISSUES

The first question of how expanded discharge planning and case management programs differ from traditional discharge planning programs was answered. Traditional discharge planning concluded upon patient discharge. Expanded discharge planning consisted of patient contact by hospital personnel, for a limited length of time up to two weeks following discharge. The case management programs continued for longer than two weeks, and included not only

monitoring, but coordination of services and interventions for problem resolution.

Geographic Distribution

Hospitals that participated in the mail survey were distributed throughout California. The 68 hospitals with expanded discharge planning programs, however, were not evenly distributed throughout the state. The North Bay Area, West Bay Area and Golden Empires Health Service Areas were less likely to have hospitals with expanded discharge planning programs. Case management programs were not found in the central area of California.

Hospital Size

The mean size of the 209 hospitals that completed the mail survey was 226 beds. Hospitals with expanded discharge planning programs tended to be smaller, with a mean of 193 beds. The case management programs tended to be located in larger hospitals, with a mean of 484 beds.

Profit Status

Non-profit hospitals were well represented among the mail survey respondents. Profit hospitals were under represented in the total sample. Twenty percent of the hospitals with expanded discharge planning services were profit corporations. None of the hospitals with case management programs were profit corporations. Eighty-two percent were non-profit, and 18% were public hospitals.

Staff Issues

In the hospitals with traditional discharge planning programs, 51% of the discharge planners were nurses. The highest degree held among this group was reported as 19% had bachelors degrees in nursing, 14% were diploma educated nurses, 10% had associate degree preparation, 4% had masters degrees in nursing, and 3% were licensed vocational nurses. Of the non-nurse group of traditional discharge planners, 22% were masters prepared in social work, 15% were prepared with bachelors degrees in social work, and 5% were LCSWs. Less than 2% of the discharge planners were marriage, family and child counselors, gerontology specialists or occupational therapists. Four percent of the discharge planners had college degrees in other fields, such as psychology, counseling, and liberal arts. Four percent of the discharge planners were educationally prepared with high school diplomas as their highest level of education.

In the hospitals with expanded discharge planning programs, 70% of the contacts are made by discharge planners or social workers. Non-professional volunteers comprised 13% of the staff who had contact with patients following discharge. The remaining staff who contacted patients included 9% other staff, 3% secretarial staff, 3% home health liaison nurse, 1% guest relations staff, and 1% Directors of Nursing.

The staff of the case management programs included 24

nurses and 74 non-nurses. Of the nurses, the educational preparation paralleled that found in the traditional discharge planning group, with the greatest number prepared with bachelors degrees in nursing (9%), followed by diploma nurses (7%), associate degree nurses (4%), then masters degree prepared nurses (4%). There were no licensed vocational nurses employed as case managers.

Thirty-seven percent of the non-nurse case managers were prepared with masters degrees in social work, followed by 33% with bachelors degrees in social work. One percent were LCSWs, and 3% had other educational backgrounds. The county hospital with a case management program employed 60 of the 94 case management staff. All of these case managers were BSWs or MSWs and not nurses, which inflated the total number of non-nurse case managers.

PROCESSES

Expanded Discharge Planning

Sixty-nine percent of patients selected for expanded discharge planning follow-up were selected because they were identified as being at high risk for complications or readmission. High risk criteria generally included age, diagnosis, and identified problems. All of the patients receiving expanded discharge planning services received phone calls, and were asked how they were doing, if they had any problems, and if the services ordered had arrived.

Case Management

Patients receiving case management services were followed for an indefinite period of time, based upon individual patient needs. Thirty-six percent of the case management services terminated at the end of the first month following patient discharge from the hospital. Individual patients were contacted as often as necessary while enrolled in the case management program. The level of functioning was the primary factor that the case managers monitored. All case managers contacted patients by phone. Sixty-four percent of the hospitals had staff who made home visits. Fifty-five percent of the hospitals had staff who made visits to facilities where patients had been admitted.

OUTCOMES

Expanded Discharge Planning

All of the hospitals with expanded discharge planning programs contacted patients by phone after discharge. Thirteen percent of the hospitals had staff who made home visits and 19% had staff who made visits to facilities where they had referred patients.

Eighty-two percent of the hospitals kept documentation of patient contact. Forty-seven percent reported that when patients were readmitted to the hospital they checked their documentation to see if the patient had been contacted following hospital discharge.

Thirty-five percent of the hospitals contacted patients

to determine if the discharge plans were adequate, 32% for quality assurance data collection, 15% contacted all high risk patients, and 18% contacted patients for all of these reasons.

Case Management

Seventy-three percent of the hospitals monitored hospital readmissions of the high risk, case managed patients. These same hospitals also collected data on the number of case managed patients who were admitted to long term care facilities. Thirty-six percent of the case management hospitals collected data on short term patient outcomes (up to 2 months), and 27% collected information on long term patient outcomes.

Forty-five percent of the case management hospitals measured the costs of the programs. The patient lengths of stay and the direct program costs were both measured by these hospitals. Eighteen percent of these hospitals did not collect sufficient data to determine if the case management programs were cost-effective.

The perceived benefits of the case management program included a variety of responses, but the major themes that emerged were the hospitals' desire to decrease lengths of stay, to follow primarily patients who were in groups identified as high risk for development of complications necessitating readmissions, as a service provided to patients residing in the community that the hospitals serve,

and to keep individuals independent at home for as long as possible.

The result of the telephone survey of the directors of the case management programs revealed a serious deficiency in data collection and program evaluation efforts. A combination of lack of staff and insufficient time were the most frequent responses explaining why program outcomes had not been measured. This created a problematic situation, one that placed these innovative programs at risk for being eliminated because neither cost effectiveness or patient outcomes concerning quality issues were being quantified or described. During times of budget negotiation, perceived benefits of the programs as voiced by the program directors are simply not sufficient justification for substantiating program continuation. Program evaluation, including the cost of each program and the monitoring of specific outcome criteria that will define and measure quality, is needed. These outcome criteria should include, but not be limited to, the patient's length of stay, hospital readmissions, frequency of Emergency Department visits, and physical and functional problems encountered following hospital discharge.

Significance

This study has provided the beginning information that was necessary to identify the discharge practices of

study, it was only speculated that there were hospitals in California where discharge planning staff provided expanded discharge planning or case management services as defined for this study. The information obtained through this study has validated the existence of these innovative programs throughout the state. At least some of these programs have now been located and described. The need for program evaluation to determine program cost effectiveness and to measure patient outcomes has also been identified through the information collected in this study.

Limitations

The response rate, although 50%, was lower than hoped. Therefore, conclusions drawn from this study should be made cautiously. Another limitation of this study was the under representation of proprietary hospitals. Because of this, findings from the participating hospitals were not able to be generalized to the total population of hospitals in California. Because the study was a descriptive design, it served only to identify and describe participating hospitals that had innovative programs in the form of expanded discharge planning and case management programs. Conclusions must be drawn with caution.

Implications For Nursing

The role of nurses as discharge planners who provided expanded discharge planning services, as well as case management services in the hospitals in this study have been identified. The involvement of nurses in these roles was significant. As several program directors indicated in the telephone interviews, they preferred to have nurses in the role of discharge planners and case managers because of the diverse abilities of nurses to assess and intervene with patients on many levels, including physical assessments, psychosocial assessments, and the identification of patient needs at home. These innovative programs provided yet another professional role for nurses, roles that needed further identification, development, and establishment of standards of practice. Programs need to be established that will prepare nurses for the role of discharge planner and case manager. A special focus on these areas should be made available in nursing graduate programs, to prepare nurses specialized in these areas.

Other program directors indicated that they preferred social workers in the role of discharge planners because of the social workers' strong background in financial and psychosocial assessments. Still other program directors employed non-professional staff in the role of discharge planners because of the belief that staff could be taught discharge planning on the job, without formal educational

preparation. Staff with lesser educational preparation were available in larger numbers, and were employed for lower wages than staff with bachelors or graduate degrees. These comments by program directors indicated the need for standards of practice for discharge planners, including the qualifications needed for entry into the specialty. Until standards are developed and enforced, discharge planning departments will continue to be staffed with unqualified staff.

Future Research

There is a definite need for additional research of these case management programs. The costs of the programs, patient outcomes, and the role of the case managers are just a few of the areas that need to be explored. Specific questions that have emerged as a result of this initial descriptive study include the following:

1. Do these programs make a difference to the financial status of the hospitals?
2. Is there a difference in the patient length of stay and readmission rates as a result of the interventions of the case manager?
3. Is there one model of case management that is more efficient and more cost effective than another?
4. Is there a difference in the quality of patient outcomes that can be attributed to the case management programs?
5. What relationship does education level of the case managers and expanded discharge planners have on patient outcomes?

Three of the case management program directors indicated that they were interested in participating in future research to answer these questions, and all of the case management hospitals were in need of program evaluation. If these hospitals were to be evaluated using the same criteria and evaluation methods in each hospital setting, the findings could be compared across sites, and thus provide even more valuable information. But by far the most significant contribution of future research on the costs and quality outcomes of these programs would be the justification to hospital administrators of the importance of the development and testing of innovative programs that could make a difference in both the financial picture of hospitals and in patient outcomes. Supporting these programs both philosophically and financially to encourage continued program success is an important role of nursing executives and hospital administrators.

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DISCHARGE PLANNING AND CASE MANAGEMENT SURVEY

Case management is emerging in hospital acute care settings as a method for the coordination of patient services to control resource utilization, patients' lengths of stay, and hospital costs. There is no one common definition of case management, nor has one model for case management emerged in the acute care setting. It is not currently known how many acute care hospitals in California have implemented models of expanded discharge planning or case management, or the types of programs that have been implemented. Limited research has been done to evaluate case management models in the acute care setting.

This survey, which has been endorsed by the California Association of Hospitals and Health Systems (CAHHS), is the first part of a study designed to identify discharge planning and case management services that are being provided in the acute care setting. Results of this survey will be used for further study of discharge planning and case management programs in California, and to allow for further study of discharge planning and case management programs in hospitals in California.

Information obtained from the survey will be used to identify and classify hospitals as offering either traditional discharge planning, expanded discharge planning, or case management services. Names of participating hospitals, addresses, hospital size and the classification of type of discharge services provided will be compiled and published. Specific results of survey questions will be available, in the aggregate, to participating hospitals upon request, and will be published. Individual hospital results with hospitals identified will be reported only with permission of the individual hospitals, as requested in question #25. Hospitals that prefer to remain anonymous will not be identified. No individual staff identities will be used in any reports or publications resulting from this study. Participation in research may involve a loss of privacy. However, records will be kept as confidential as possible under the law.

The survey should be completed by the Director of Discharge Planning or the Director of the Case Management program. If your hospital does not offer Case Management services, only the first part of the survey needs to be completed and returned.

Thank you for your time and cooperation. If you have questions concerning the survey, please call Jean Lyon at (415) 689-7808, or Dr. Charlene Harrington, Professor, Department of Social and Behavioral Sciences, UCSF, (415) 476-4030.

Please complete the survey and return it in the envelope provided by October 8, 1990. Results of the survey will be available to participating hospitals upon request.

Jean Lyon

Jean Lyon, RN, PhD Candidate
School of Nursing
University of California, San Francisco

Charlene Harrington PhD

Charlene Harrington, PhD
Professor
Department of Social and Behavioral Sciences
University of California, San Francisco

6/90

greater of either 1) eight hours in a workday, including doubletime, or 2) 40 hours in a workweek."

The lower court decision, if upheld, would have resulted in millions of dollars in overtime liability for the health care industry. (Contact: Christine Hall)

CMRI treatment authorization change

Effective Oct. 1, 1990, California Medical Review (CMRI) will replace the current voice mail system for urgent/emergent cases with a new process that will allow CMRI to issue a post-procedure treatment authorization number (TAN), formerly called prior authorization certification (PAC). This will eliminate the need for CMRI prepayment review.

Providers/practitioners will be issued a unique TAN for urgent/emergent procedures by contacting (800) 841-1602, from 9 a.m. to 5 p.m. Monday through Friday. A detailed procedure outlining the method of obtaining the post-procedure TAN was mailed to each facility Sept. 19, 1990.

Practitioners should check with the facility administrator, CMRI contact person, medical staff coordinator, or in physician lounges for a copy of the procedure. This changewill allow physicians and facilities to submit claims for services and receive reimbursement before CMRI retrospective review which will be performed on every case issued a post-procedure TAN.
(Contact: Dorel Freeman)

Insurance savings available to hospitals

It's not quite the same as winning the lottery, but it's money for California hospitals, nevertheless.

California Hospitals Associated Insurance Service (CHAIS), the insurance corporation owned by the California Association of Hospitals and Health Systems (CAHHS), is winding up efforts to return $29 million in insurance savings to hospitals.

But 200 checks for about $5 million are still awaiting signed releases from hospitals. The funds are from a dividend reserve account under the former California Hospital Association/Truck Insurance Exchange professional liability program terminated five years ago.

CHAIS plans to send one last letter to hospitals the week of Oct. 1. If responses are not received within 30 days, the checks will be returned to Truck. Eventually, unclaimed checks could end up in the state's coffers. (Contact: Jeff Sousa or Julie Jackson, [916] 631-0333)

CHPAC donations exceed $315,000

The California Hospitals Political Action Committee (CHPAC) had raised more than $315,000, as of Sept. 20, 1990. This represents 67 percent of the 1990 goal of $475,000. The Hospital Councils and CHPAC Board of Directors are working to reach the goal by the California Association of Hospitals and Health Systems' (CAHHS) Annual Meeting Oct. 17-18 in Palm Springs. Contributors to CHPAC who wish to qualify for the "On the Move" drawing need to mail their checks and make their pledges now. For more information about CHPAC, please contact your Hospital Council or the CHPAC office, (916) 443-7401.
(Contact: Lisa Yates)

Discharge planning survey endorsed

The California Association of Hospitals and Health Systems (CAHHS) and the Hospital Councils have endorsed a discharge planning and case management survey which was sent to hospitals last week. The survey is sponsored by the University of California, San Francisco, and should be returned by Oct. 8, 1990. The survey will identify California hospitals that use either traditional discharge planning or expanded case management discharge planning, or use case management services. (Contact: Larkin Morse)

Quality Improvement seminar Oct. 26

The California Association of Hospitals and Health Systems (CAHHS) and the Joint Commission on the Accreditation of Healthcare Organizations will co-sponsor a one-day seminar, *Quality Improvement in Special Care Units*, Oct. 26 at the Capitol Plaza Holiday Inn in Sacramento.

The seminar will present an operational understanding of the special care unit standards and the interdisciplinary quality assurance issues which confront special care professionals. For a brochure, contact the CAHHS Education Department, (916) 552-7500. (Contact: Debbie Zebick)

Washington, D.C. visits Jan. 27-30

The California Hospitals Congressional Action Program is scheduled Jan. 27-30 at the Washington (D.C.) Hilton Hotel, to coincide with the American Hospital Association (AHA) annual membership meeting.

Hospital chief executive officers, management, trustees and volunteers are encouraged to attend and help present the positions of hospitals on critical health care and fiscal issues to members of Congress.

The program is sponsored by the California Association of Hospitals and Health Systems (CAHHS) and the Hospital Councils. Last year, there were more than 200 delegates from California — the largest contingent from any state. CAHHS members should watch for additional information and registrations materials in early November.
(Contact: John Ferman)

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DISCHARGE PLANNING
AND
CASE MANAGEMENT SURVEY

The purpose of this survey is to study discharge planning and case management services offered by acute care hospitals in California. Results of this study will be used to identify hospitals for possible further study. The survey is divided into three sections, background information, discharge planning, and case management. Names of individuals completing the survey will remain anonymous. A list of hospital names and categories of discharge planning, expanded discharge planning and case management will be compiled and available to participating hospitals upon request. Other responses to the survey will be reported only with individual hospital approval. Your cooperation is greatly appreciated.

BACKGROUND INFORMATION:

Please correct any information below that is incorrect, and add the information that is not supplied.

1. Hospital Name:

2. Address:

3. Bed Size:

4. Number of medical/surgical beds:

5. Current profit status:

6. Name of person completing the form _____
_____

7. Title of person completing the form _____
_____ Phone number _____

8. Average patient length of stay:

9. Percentage of Medicare patients _____

10. Average number of medical/surgical patient discharges per month:

DISCHARGE PLANNING QUESTIONS:
Discharge planning for the purpose of this survey is defined as the planning and coordination of services provided for hospitalized patients to facilitate patient discharge. Traditional discharge planning services generally terminate when the patient is discharged from the hospital setting. Discharge planners are defined as staff who are employed by hospitals to provide discharge planning services to patients.

11. How many discharge planners are employed by your hospital in a department responsible for discharge planning?

Total Number _____ Number of FTEs _____

(Please note: 1 F.T.E. = 1 full time equivalent, employed 2,080 hours/year. Use this as a standard and calculate your total FTEs).

12. Indicate the average percentage of time that your discharge planners spend on each function. (Total should equal 100%).

_____% 1) Discharge Planning
_____% 2) Utilization Review
_____% 3) Quality Assurance
_____% 4) Other (Please specify) _____
100% TOTAL

13. On the average, how much orientation to the job did new employees hired as discharge planners receive when they assumed their role in your hospital?

_____ 1) None
_____ 2) One day
_____ 3) 2 - 7 days
_____ 4) 8 - 14 days
_____ 5) 15 - 21 days
_____ 6) 22 days or more (If more, please specify)___
_____
_____ 7) Not Applicable

14. On the average, how much orientation to the job did continuing employees hired as discharge planners receive when they assumed their role in your hospital?

_____ 1) None
_____ 2) One day
_____ 3) 2 - 7 days
_____ 4) 8 - 14 days
_____ 5) 15 - 21 days
_____ 6) 22 days or more (If more, please specify)____
_____
_____ 7) Not Applicable

15. What is the average number of patient contacts per week made by each discharge planner? _____

16. What percentage of the average discharge planner's time is spent providing the following activities? (Total should equal 100%).

____% 1) Coordination of services in the community
____% 2) Referral services
____% 3) Physical assessment
____% 4) Social assessment
____% 5) Functional assessment
____% 6) Psychological assessment
____% 7) Financial assessment
____% 8) Coordination of services
____% 9) Assistance with form completion (e.g., Medicare)
____% 10) Hiring of staff from other agencies to work with the client
____% 11) Ongoing assessment/monitoring of the client
____% 12) Discharge planning rounds
____% 13) Conferences with families
____% 14) Other, specify _____
100% TOTAL

17. Do your discharge planners provide follow-up services for patients after discharge?
_____ Yes _____ No (If no, skip to number 20)

If yes, answer questions #18 & 19

18. Does your discharge follow-up include the following:

1) Phone calls _____ Yes _____ No
2) Home visits _____ Yes _____ No
3) Facility visits _____ Yes _____ No

19. If you answered yes to number 18, approximately what percentage of patients receive the following services:

1) Phone calls _____%
2) Home visits _____%
3) Facility visits _____%

20. What is the average length of time over which follow-up extends?

_____ 1) None
_____ 2) One day
_____ 3) 2 - 7 days
_____ 4) 8 - 14 days
_____ 5) 15 - 21 days
_____ 6) 22 days or more (If more, please specify) _____
_____

21. Please complete the following information for each of your discharge planning staff. Each line is to reflect the information of each discharge planning employee. Check the columns that reflect the education preparation for each staff member. Add additional lines for more staff, if necessary.

EMPLOYEE TITLE	# HOURS WORKED IN 2 WEEK PAY PERIOD	LVN	RN A.D	RN BSN	RN DIPLOMA	MSN	BSW	MSW	DNS/ PHD	OTHER (SPECIFY)
EXAMPLE: Discharge Planner	48				X					
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										

Some hospitals have established **Case Management** programs. Case Management is defined as the coordination of client health care services in the community, following patient discharge from the hospital.

22. Does your hospital offer case management services?
_____ Yes _____ No

23. If your hospital has not implemented case management services, has such a program been considered?
_____ Yes _____ No

24. If case management has not been implemented, what do you identify as the barriers to the implementation of a case management program in your hospital? (No individual hospital responses will be reported.)

_____
_____
_____
_____
_____
_____
_____
_____

25. Are you willing to have the results of this survey reported with your hospital identified?
_____ Yes _____ No

This space is provided to allow you to ask questions or make comments about this survey. If you wish to do so, please do so now. _____
_____
_____
_____
_____
_____

If your hospital does not provide case management services, you have completed the survey. Please return the survey in the envelope provided.

If your hospital does provided case management services, please answer questions 26 through 40.

If another department or service provides case management, please route the following questions to the appropriate manager, or provide the name and address of the responsible person in the space below, and a survey will be sent directly to her/him.

CASE MANAGEMENT QUESTIONS:

Name of person completing this section if different from the previous section:
Name _____
Title _____
Phone _____

26. When were case management services first initiated in your hospital? (Provide date) _____

27. Is case management;

_____ 1) Part of Discharge Planning Department
_____ 2) Separate and distinct function with separate staff

28. Are case management services available to patients;

_____ 1) Instead of discharge planning
_____ 2) In addition to discharge planning

29. How many case managers are employed by the hospital in a department responsible for case management?

Total Number _____ Number of FTEs _____

(Please note: 1 F.T.E. = 1 full time equivalent, employed 2,080 hours/year. Use this as a standard and calculate your total FTEs).

30. On the average, how much orientation to the job did new employees hired as case managers receive when they assumed their role in your hospital?

_____ 1) None
_____ 2) One day
_____ 3) 2 - 7 days
_____ 4) 8 - 14 days
_____ 5) 15 - 21 days
_____ 6) 22 days or more (If more, please specify) _____
_____ 7) Not Applicable

31. On the average, how much orientation to the job did continuing employees hired as case managers receive when they assumed their role in your hospital?

_____ 1) None
_____ 2) One day
_____ 3) 2 - 7 days
_____ 4) 8 - 14 days
_____ 5) 15 - 21 days
_____ 6) 22 days or more (If more,please specify) _____
_____ 7) Not Applicable

32. What is the average number of patient contacts per week by each case manager? _____

33. Approximately how many patients are in the typical case manager's case load at any given time? _____

34. How is case management funded in your facility? (Check the appropriate responses).

_____ 1) Included in the DRG payment for Medicare
_____ 2) Included in Medicaid reimbursement
_____ 3) Private pay clients
_____ 4) Included as an administrative cost
_____ 5) Contracted with Medicare or HMO under a capitated financing program for funding
_____ 6) Other, please specify _____

35. What criteria are used to determine the need for case management services? (Check those that apply, and circle the one that represents the greatest number of referrals).

_____ 1) Age
_____ 2) Functional Status
_____ 3) Social Support
_____ 4) Diagnosis
_____ 5) Other

36. Which patients are referred for case management services? (Check those that apply)

_____ 1) Patients admitted to the hospital
_____ 2) Patients residing in the community (e.g. home, nursing home, residential care)

37. What percentage of the case manager's time is spent providing the following activities? (Total should equal 100%).

_____% 1) Coordination of services in the community
_____% 2) Referral services
_____% 3) Physical assessment
_____% 4) Social assessment
_____% 5) Functional assessment
_____% 6) Psychological assessment
_____% 7) Financial assessment
_____% 8) Coordination of services
_____% 9) Assistance with form completion (e.g., Medicare)
_____% 10) Hiring/monitoring of staff from other agencies to work with the client
_____% 11) Ongoing assessment/monitoring of the client
_____% 12) Discharge planning rounds
_____% 13) Conferences with families
_____% 14) Other (specify)_____
100% TOTAL

38. Do your case management services include the following: (Check all that apply)

1) Phone calls _____ Yes _____ No
2) Home Visits _____ Yes _____ No
3) Facility visits _____ Yes _____ No

39. If you answered yes to number 38, approximately what percentage of patients receive the following services in any one month.

1) Phone calls _____%
2) Home visits _____%
3) Facility visits _____%

40. Do your nurse case managers provide direct patient care as caregivers in the hospital?
_____ Yes _____ No

41. Why was case management implemented in your facility? Rank the choices from 1 to 4, with number 1 being the most important reason, and number 4 the least important.

_____ Concern for patient lengths of stay and resulting expense to the hospital.
_____ Issues of quality patient care
_____ As an attempt to decrease the patient readmission rates
_____ To provide a service to the community

42. Please complete the following information for each of your case managers. Each line is to reflect the information of each case manager. Check the columns that reflect the education preparation for each staff member. Add additional lines for more staff, if necessary.

EMPLOYEE TITLE	AVERAGE # HRS WORKED IN 2 WEEK PAY PERIOD	LVN	RN A.D	RN BSN	RN DIPLOMA	MSW	BSW	MSW	DNS/ PHD	OTHER (SPECIFY)
EXAMPLE: Case Manager	48 hrs			X						
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										

43. Which of the following information is collected on your patients (Check all that apply);

_____ 1) Length of hospital stay
_____ 2) Services provided by the case manager
_____ 3) Length of time as an active case managed client
_____ 4) Hospital readmissions
_____ 5) Admissions to long term care facilities
_____ 6) Client outcomes, short term (up to 2 months)
_____ 7) Client outcomes, long term (longer than 2 months)
_____ 8) Cost of case manager services
_____ 9) Other, please specify _____
_____
_____

44. Are you willing to have the results of this survey reported with your hospital identified?
_____ Yes _____ No

This space is provided to allow you to ask questions or make comments about this survey. If you wish to do so, please do so now. _____
_____
_____
_____
_____
_____
_____

Thank you for participating in this survey. Please return the survey in the stamped, self-addressed envelope provided to:

Jean Lyon, RN, PhD Candidate
3424 El Monte Drive
Concord, CA 94519

Appendix C

PHONE SURVEY
HOSPITALS WITH
EXPANDED DISCHARGE PLANNING
SERVICES

Hospital _____

Location _____

Size _____ Profit Status _____

Name of contact person _____
Title of contact person _____
Phone number _____

KNOWN INFORMATION

Phone calls made _____Yes _____No
% receiving calls _____%

Home visits made _____Yes _____No
% receiving home visits _____%

Facility visits made _____Yes _____No
% receiving _____%

Length of time follow-up extends

_____ 1) None
_____ 2) one day
_____ 3) 2 - 7 days
_____ 4) 8 - 14 days
_____ 5) 15 - 21 days
_____ 6) 22 days or more

In your response to the Discharge Planning and Case Management survey, you indicated that contact is made with some patients following hospital discharge. I would like to ask you about four additional questions about your patient follow-up services.

1. How are patients selected to receive follow-up contact?

_____ 1) Random selection from all patients
_____ 2) Random selection of high risk patients
_____ 3) Non-random selection of all patients
_____ 4) Non-random selection of high risk patients
_____ 5) Other _____
_____
_____

2. How do you determine who is high risk? What criteria is used?

_____ 1) Not applicable
_____ 2) _____
_____
_____
_____
_____

3. Who makes the follow-up contact?

_____ 1) Discharge planners
_____ 2) Secretarial staff
_____ 3) Non-professional volunteers
_____ 4) Other _____
_____

4. What do you ask patients when you contact them?

_____
_____
_____
_____
_____
_____
_____

5. Are there other things that you do on follow-up?

_____ Yes _____ No

_____
_____
_____
_____

6. What is the primary purpose of follow-up patient contact?

_____ 1) Quality Assurance data collection
_____ 2) To determine if the discharge plan was adequate
_____ 3) To remain in contact with patients who are at high risk for complications and readmission
_____ 4) Other _____
_____

7. Do you keep documentation of patient follow-up with individual patients identified, such as in a log or in the patient's chart?

_____ Yes _____ No

8. If patients are readmitted to the hospital, is there any cross check of people who you contacted following discharge?

_____ Yes _____ No

_____
_____
_____
_____
_____

Appendix D

CASE MANAGEMENT
PHONE SURVEY

Hospital _____

Location _____

Size _____ Profit Status _____

Name of contact person _____
Title of contact person _____
Phone number _____

KNOWN INFORMATION

Phone calls made _____ Yes _____ No
% receiving calls _____ %

Home visits made _____ Yes _____ No
% receiving home visits _____ %

Facility visits made _____ Yes _____ No
% receiving _____ %

Length of time follow-up extends

_____ 1) None
_____ 2) one day
_____ 3) 2 - 7 days
_____ 4) 8 - 14 days
_____ 5) 15 - 21 days
_____ 6) 22 days or more

Which of the following information is collected on your patients:

_____ 1) Length of hospital stay
_____ 2) Services provided by the case manager
_____ 3) Length of time as an active case managed client
_____ 4) Hospital readmissions
_____ 5) Admissions to long term care facilities
_____ 6) Client outcomes, short term (up to 2 months)
_____ 7) Client outcomes, long term (longer than 2 months)
_____ 8) Cost of case manager services
_____ 9) Other, please specify _____
_____
_____

1. How often is each patient contacted? _____
_____
_____

2. Have you been measuring the costs of the case management program?

_____ Yes _____ No

If yes, please describe _____
_____

3. Is it considered cost effective for your hospital to offer case management services?

_____ Yes _____ No

Explanation _____
_____
_____

4. Have you been measuring any quality outcomes?

_____ Yes _____ No

Describe _____
_____
_____

5. What criteria do you use to measure quality outcomes for case managed patients?

_____
_____
_____
_____

6. Has the average L.O.S. changed since case management was implemented?

_____ Yes _____ No

If yes, describe _____
_____
_____

7. Do you monitor readmissions of case managed patients?

_____ Yes _____ No

If yes, describe _____
_____
_____
_____

8. Has the readmission rate among case managed (high risk) patients changed since case management was introduced?

_____ Yes _____ No

Explanation _____

9. Have you made any modifications in the case management program since it was started?

_____ Yes _____ No

If yes, what changes have been made and why?

10. Do you have any written materials to describe the program?

_____ Yes _____ No

11. Have any internal studies of the case management program been done?

_____ Yes _____ No

If yes, describe _____

12. What do you perceive to be the benefits of the case management program?

Appendix E

November 14, 1990

Dear Director of Discharge Planning,

Last month you should have received a copy of a survey titled "Discharge Planning and Case Management." I have not yet received your completed survey. The study, which has been endorsed by the California Association of Hospitals and Health Systems (CAHHS), is a comprehensive study of discharge planning practices in hospitals in California. Your response is needed to provide a more complete description of hospital discharge planning activities.

Enclosed is another copy of the survey. Please complete all or as much of the survey as possible and return it in the envelope provided. If you do not wish to participate in the study, please indicate this and return the survey. Your participation is greatly appreciated. Thank you.

Sincerely,

Jean Lyon, RN, PhD Candidate
(415) 689-7808

Appendix F Text of Post Card

September 28, 1990

Dear Director of Discharge Planning;

Approximately ten days ago you
should have received a copy of
a survey titled "Discharge
Planning and Case Management."
If you have completed and returned the
survey, thank you for your participation.
If you have not yet returned the survey,
please do so now, as your input is needed.
If you need another copy, please notify
Jean Lyon at (415) 689-7808, or write
3424 El Monte Dr., Concord, CA 94519.

Thank you.