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A STUDY OF HEALTH CARE REFORM EFFECTS ON THE FUNCTION AND PHILOSOPHY OF DISCHARGE PLANNERS: A PROPOSED CHANGE IN THE CURRICULUM FOR HOSPITAL DISCHARGE PLANNERS

by

ANN M. KEILLOR

DISSERTATION

Submitted to the Graduate School

of Wayne State University,

Detroit, Michigan

in partial fulfillment of the requirements

for the degree of

DOCTOR OF EDUCATION

1997

Major: CURRICULUM AND INSTRUCTION

Approved by:

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Dedication

This study is dedicated to my grandparents, Loretta and Carey Luxon, and Ruby and William Keillor.

Acknowledgments

I would like to start by thanking my dissertation committee, Dr. Thomas Edwards, Dr. Stuart Gram Itzkowitz, and a special thanks goes to my committee chairman, Dr. Leonard Kaplan for his ongoing encouragement, thoughtfulness, constructive criticism, professional advice and time.

I am also indebted to the chief executive officer of the health system used as the study site for this investigation, and his staff for their efforts in providing the detailed information required to perform the data and survey analysis.

I am also forever grateful to my family, especially my parents, Joan and Wes Keillor for teaching me to value education highly and providing ongoing support and encouragement.

A heartfelt thanks goes to my best friend, Claire Jones-Dayton, who constantly requested an update and explanation as to why I wasn't finished yet. That kind of consistent interest and nudging kept me going.

TABLE OF CONTENTS

	Page
DEDICATION	ü
ACKNOWLEDGMENTS	ü
LIST OF TABLES	vii
CHAPTER	
I. STATEMENT OF THE PROBLEM	
Introduction	1
Historical overview of Healthcare coverage	2
Philosophical Assumptions Regarding the Current and Future State of Health Care	4
Health Care Insurance Trends	10
The Researcher's Personal Assumptions	15
Significance of the Study	16
Research Hypotheses	17
Limitations of the Study	18
Summary	20
Terms used in the Study	20
II. REVIEW OF THE LITERATURE	
Introduction	23
Implicit and Explicit Rationing of Health Care	24
The Moral Dilemma of Rationing	26
Individualistic and Communal Views of Health and Human Welfare	27
Governments Role in Rationing	29

Making Rationing Decisions from the First or Second Position	30
Examining the Impact of PPS on Hospitals and Patients	34
Examining the Educational Preparation and Hospital Role of the Professional State	f
Facilitating Post-Hospital Care	37
Review of Curriculum Issues	39
Summary	44
Chapter	
III. METHODOLOGY	
Study Design	46
Hypotheses Tested	48
Research Setting	49
Selection of the Data	49
Survey Instrument	50
Data Collection	52
Data Analysis and Statistical Operations	52
IV. RESULTS OF THE STUDY	
Introduction	54
Data Analysis	55
Measuring Change in Patient Care Management	57
Effects of Age, Gender, and Diagnosis on Post-Hospital Utilization	60
Survey Results	65
Summary	69

V. CONCLUSIONS AND RECOMMENDATIONS

Conclusions	71
Implications	72
Study Recommendations	76
Significance of the Study	77
Recommendations for further Research	78
APPENDICES	
Appendix A-Sample DRG Table	81
Appendix B-Discharge Planning Survey	92
REFERENCES	97
ABSTRACT	102
AUTOBIOGRAPHICAL STATEMENT	104

LIST OF TABLES

		rage
Table 1:	Discharge Destination for Medicare Patients from the Sample Hospital	57
Table 2:	Average acute Hospital Length of Stay and Proportion of Patients Using Post-	
	Hospital Care	59
Table 3:	Acute Hospital Length of Stay for Patients Discharged to Home Health and	
	Skilled Nursing Facilities	59
Table 4:	Acute Hospital Length of Stay and Number of Home Health Visits for Patients	**********
	Discharged to Home Health	60
Table 5:	Age of Users and Nonusers of Post-Hospital Care	62
Table 6:	Proportion of Female and Male Discharged Patients Using Specific Post-	
	Hospital Services	63
Table 7:	Top 10 Diagnostic Related Groups (DRGs) for Discharge to Home Health,	
	Skilled Nursing Facilities, and Acute Rehabilitation.	64
Table 8:	Rating by Discharge Planners of Criteria Used to Screen Patients for Post-	
	Hospital Placement	66
Table 9:	Principal Activities of Discharge Planners: Time Spent, Activities Stressed	
	During Collegiate Education, and Activities Valued by Practitioners	68

Chapter I

Introduction

Many changes occurring in the health care environment are a result of health care funding, that is, how hospitals are reimbursed for services provided. This study has examined the changes in patient care management that occurred before and after the implementation of the Medicare Prospective Payment System (PPS). The study also examined how this has effected the function of hospital discharge planning and whether hospital discharge planners had areas of their collegiate curriculum stressed that would adequately prepare them for the activities that were effected by the changes that occurred as a result of the implementation of PPS. The study assesses which activities are consuming a significant amount of the discharge planners time, to what extent the discharge planners value those activities, and whether the discharge planners' curriculum stressed those activities during their collegiate preparation. Spiraling health care costs have become a national priority and further cost reductions are expected. This trend will continue to influence the educational preparation of social workers and registered nurses.

The current U.S. health care delivery system is taxing the public and private sectors of the economy, and we are not able to provide a basic insurance package for every citizen. The Prospective Payment System (the method by which hospitals are paid a prescribed amount for a specific diagnosis, regardless of length of stay in the hospital) has curtailed spiraling health care costs to an extent, but it is not a single viable solution. This research will examine the potential of substituting post-hospital care (i.e. rehabilitation, skilled nursing or home care) for a portion of the expensive hospital inpatient stay for Medicare beneficiaries, to what extent that may already be happening, and whether the

staff responsible for facilitating the post-hospital care feel prepared to deal with the changes occurring in the health care environment.

Historical Overview of Healthcare Coverage

The purpose of the historical overview is to describe the multiple initiatives that have been employed in an attempt to reduce health care costs. Those initiatives have met with varied success, and this section reviews both their merits and limitations.

"Health care expenditures in the U.S. began rising at an alarming rate in the mid 1960's. Total health care spending increased 61 percent between 1965 and 1980 to 99.6 billion. Federal and state governments became concerned about rapidly rising health care expenditures because they pay 54 percent of the national health care bill " (Heinemann, 1988, p. 614). Since the inception of Medicare in 1965, expenditures for that program have far exceeded budget projections. "Congress expected that Medicare expenditures would reach 8.8 billion by 1990; this figure was exceeded by 1972" (Heinemann, 1988, p. 614). Government attempts to control Medicare expenditures have evolved slowly over the last 20 years. Originally, Medicare reimbursed hospitals at cost plus an additional 2 percent. The added 2 percent reimbursement was eliminated in 1969. "Congress passed legislation in 1972 which set limits on reimbursement of hospital room and board and nursing services; however ancillary services were not affected" (Heinemann, 1988, p. 614). Due to continued cost increases, the Carter administration encouraged voluntary restraint by hospitals and proposed cost containment legislation. According to Heinemann (1988):

Congress defeated the Carter Administrations legislation in 1979, but passed the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) in response to continuing budgetary concerns. TEFRA changed Medicare's reimbursement system from one of cost-plus to a new plan of "target"

treatment rates." This plan was designed to limit hospital reimbursement for expenses and inflationary rate hikes. In addition, TEFRA included a provision that required development of a prospective payment system (PPS). This provision was included in the Social Security Amendment of 1983" (p. 614).

Even with the advent of the PPS system of reimbursement, health care costs have continued to rise at an unprecedented rate. President Clinton (1992) in his position paper on health care reform stated the following: Spending for Health Care continues to increase at a rate that exceeds growth in the rest of the economy. Spending for heath care has reached 800 billion a year. Spending per person has tripled in the past 12 years, increasing from \$1,059 in 1980 to \$3,057 in 1992 (p. 804).

The continued escalation of health care costs has been at the fore front of the legislative agenda for the past twenty years, culminating in the most recent health care reform effort proposed in 1994 by the Clinton administration. The health care cost figures are alarming, "at the current rate of growth, health care spending will reach 1.6 trillion by the year 2000" (Clinton, 1994, p. 804), or 1.7 trillion as predicted by (Burzner, 1992, p. 1), \$5,712 for every person in the country. "Health care which consumed 9.1 percent of our gross national product in 1980, today consumes more than 13 percent, and will account for more than 16 percent" (Clinton, 1994, p. 804) or "18 percent" (Burzner, 1992, p. 2) of the gross national product by the year 2000 unless action is taken. The international competitiveness of our businesses is threatened by health care costs in the United States. The U.S. costs far exceed those of other nations. According to Clinton (1992), "health care costs are now the number-one cause of bankruptcy and labor disputes. In 1990 they added \$1,086 to the cost of every car made in America" (p. 804). What is troubling about the unending escalation in health care spending is that we have not

provided basic benefits to all of our citizens. The seriousness of the issue has now reached the pocketbook of the U. S. consumer according to McDermott (1994):

"We can no longer ignore the implications of the fact that inability to pay medical bills is the leading cause of personal bankruptcy in the United States or that out of pocket medical costs now consumes more than 10 percent of the average household income. Most Americans know that the termination of their health insurance is but one pink slip away" (p.782).

Demographics are going to hamper future health care cost containment efforts because "people of age 65 years or over spend four times as much per capita on health care as do people under the age of 65, it is expected that health expenditures will rise simply as a result of the aging of the U.S. population" (Burzner, 1992, p. 2). It is expected that total population growth will "slow from the average rate of 1.0 percent per year experienced from 1965 to 1990 to 6 percent per year from 1990 to 2030" (Burzner, 1992, p. 2). In addition to overall slowing growth, the composition of the population will change dramatically during the 40-year period. Burzner (1992) has found that:

Currently, 12.4 percent of the population is 65 years of age or over, and 5.3 percent is 75 years of age or over. By 2015, when the first of the post war baby boom generation reaches age 65, those proportions increase to 14.6 percent and 6.0 percent respectively. As the baby boomers enter their seventies and eighties, the population age 65 or over will comprise 20.1 percent of the total, with those 75 years and over accounting for 9.0 percent (p.4).

The significance of these statistics is that a larger percentage of the population will be utilizing services than the percentage that will be paying for them.

Philosophical Assumptions on the Current and Future State of Health Care

Some researchers have taken a more pessimistic view on the future of managing the health care needs of the elderly. It has been widely discussed that explicit health care rationing will need to be mandated in order to control costs. According to Lamm, (1988):

In 1980, people 65 years and older occupied 105 million days of hospital beds, by the year 2000 it is expected they will use 275 million bed/days. Whereas federal spending was 2 percent of the federal budget in 1940, it was 27 percent of the budget by 1982, and rising fast. In 1981, a quarter of the people over 85 were in nursing homes, and if that proportion holds constant, we will have to build an average of one nursing home for 100 people every day for the next 15 years. By the year 2000, it is likely that rationing of medical care will take place on a substantial, widespread and recognized basis and we will not have the luxury of pretending otherwise. Public expenditures for the elderly are approximately three times the public expenditures for young people (p. 94).

The rising costs of health care have been felt most dramatically by Corporate America. According to Castro (1991):

Americans spend \$23,000 a second on medical care, more than two billion a day, \$733 billion a year. For Corporate America, health care has become a crippling expense. General Motors laid out 3.2 billion last year, more than it spent on steel, to provide medical coverage for 1.9 million employees, dependents, and retirees (p. 34).

Current spending for corporate America is vast and far reaching and the liability looks much worse for the future, Lamm (1988) states, "not only have current and immediate health care costs risen, but U.S. businesses have enormous unaccounted liability for future health care costs. The unfunded post-employment health care obligations for the Fortune 500 companies are almost \$2 trillion, yet the total assets of those companies are only 1.4 trillion" (p. 92). The unfunded debt exceeds worth by 800 billion dollars.

It is projected that the U.S. medical bill will more than double in the next 10 years. How did this happen? It is the impression of many U.S. consumers that we have the finest medical system in the world. We're the picture of health. We live decades longer than we did before. We've harnessed the body's natural defenses with antibiotics, defeated plagues and diseases, learned how to transplant parts for almost every organ except the brain. We got what we asked for, a miracle system with all of its untoward side effects. "Medicine's

amazing new tools have made decent health care a rich man's privilege, too expensive for the working poor and even many middle class people. America maybe shackling its economy by investing too much in one industry" (Castro, 1991, p.35).

The American consumer is convinced that the U.S. medical system holds the ability to perform miracles and this perception has been consistently reinforced by the super technological advances made over recent years. According to Overholt (1990), "today is a far cry from the turn of the Century when medical therapy was cheap but useless. Old age then began in the 50's and life extended beyond that was good fortune" (p.225). As a result of the advances made in medical therapy which are very significant, but also very expensive, the expectation of the U.S. consumer is that this level of service and success will continue, only at lower costs. Any tinkering with the current health care system will need to gain the acceptance and confidence of the U.S. consumer before implementation. For health care providers this presents many contradictory and converging pressures with an uncertain ability for being able to predict the outcome of national health care reform. The challenge for health care providers is providing one of continued quality service levels while reducing costs.

Rigorous efforts at cost containment have been implemented over the last 15 years starting with the implementation of the Prospective Payment System (PPS) of 1983. since 1983, hospitals have been disciplined by the diagnostic related group (DRG) payment system, Overholt (1990) defines the payment system as:

A specific sum is paid to the hospital for each patient's care based on the diagnosis, irrespective of the resources used or the number of hospital days. This approach places considerable economic risk on the hospital. There has been concern that this system will provide a stimulus for patients to be discharged prematurely to the detriment of their health (p. 226).

The economic environment of the Prospective Payment System, together with preferred provider organizations, has resulted in pressure on hospitals to provide less costly medical care. Dinerman (1987), supports the theory presented by Overholt (1990), that the DRG system of hospital reimbursement is the most recent of persistent efforts to contain hospital costs (p. 103). The formulation of diagnostic related groups (DRG's) developed separately, although simultaneously with prospective payment plans according to Heinemann (1988) as follows:

Originally, one million acute care patient records in New Jersey and Connecticut were reviewed to develop relatively homogenous patient groups. A total of 383 different DRG's were established. The original concept was expanded for other users, including use as a payment mechanism. The original DRG system was revised using a national data base which resulted in the 467 DRG categories which are the basis of the present Medicare plan. Several studies have explored the effects the PPS system has had on post acute services which include, rehabilitation units in acute care hospitals, home health care and nursing homes (p. 416).

Health care providers recognize that the DRG payment system provides an incentive to discharge patients sooner. They are not alone in this assessment. Overholt (1990) states that:

Most analysts agree that this payment mechanism has built-in incentives to discharge patients quickly. The DRG system was instituted as a change from fee for service to a flat fee, set in advance, based on diagnosis and average lengths of stay. As the aging of the population becomes significant, nursing home care and home health services combine to account for 11.9 percent of personal health care, up from 10.3 percent in 1990. Most of the gains mentioned so far are made at the expense of inpatient revenue. The share of spending accounted for by this category of service drops from 28.3 percent in 1990 to 22.3 percent in 2030 (p. 8).

The premature discharge of patients from hospitals as a result of the PPS system has been an ongoing concern and one that may be directly responsible for the continued development and increased utilization of post hospital programs such as home health care,

skilled care and rehabilitative care.

Because the use of most health care services increases sharply with age, the change in the composition of the population will have a significant impact on health care spending. The aging of the population will also cause a shift from private to public financing. The Medicare share will increase as a larger portion of the population becomes eligible to receive benefits. The Medicaid share will increase as the population continues to grow older and begins to require nursing home care. Although cost increases are expected to be moderate by historical standards, "they are still projected to rise faster than the wages that are taxed to support the program" (Burzner, 1992, p. 6).

According to Burzner (1992):

By 1993, Medicare costs were projected to exceed taxes. The program can be sustained for a few years beyond that by drawing on the trust fund, but at some time Congress will have to act to provide more funding, to limit growth in costs, or to overhaul the system entirely (p. 6). The growth in hospital payments under Medicare Hospital Insurance (MHI) slowed abruptly in 1985 following the introduction of the Prospective Payment System (PPS). Both unit price increases and utilization rates slowed, resulting in program growth of less than 10 percent per year since 1985. Out patient hospital services are expected to continue to be a major contributor to MHI growth. Growth of inpatient costs has been slowed by PPS, but outpatient costs for lab, radiology, and emergency services have risen rapidly. This may be the result of transferring some inpatient services to the outpatient setting (p.7).

The shift from inpatient care to ambulatory services that began with the implementation of PPS is projected to continue. "Outpatient hospital revenues, which accounted for 8.8 percent of personal health care spending in 1990, are projected to account for 11.5 percent by 2000, and for 15.8 percent by the year 2030" (Lamm, 1988, p. 94).

It is forecasted by Burzner (1992) that "Medicaid outlays are to increase from 75

billion in 1990 to 360 billion in 2000. With this rapid growth, the Medicaid share of the National Health Expenditure (NHE) nearly doubles from 11.3 percent in 1990 to 20.6 percent in the year 2000" (p. 7). Many factors contribute to the large increases experienced in 1990 and 1991 and to the projected continuation of these increases. "Because of high unemployment, (Burzner 1992) more people are eligible for and receiving benefits than in the past. Recent legislation has also expanded eligibility for certain groups of children, the elderly, and the disabled. There have been expansions in the services Medicaid provides" (p.7).

The uncontrolled rise in health care costs has been viewed as having a negative impact on the country's ability to finance non-health related programs such as education, transportation and defense. Burzners research (1992) proves otherwise:

Despite the upward movement of the National Health Expenditures share of the gross domestic product (GDP), it does not follow that Americans will be forced to give up non-health goods and services in order to pay for Health care. At least in aggregate, growth of non-health GDP per capita is projected to grow in the future, even if at rates somewhat less than those of the past. Figures do show that the economy has the capacity to absorb seemingly huge increases in spending for health care without reducing the output of its other sectors. Health policy analysts in the 1960's predicted that health care would never reach 10 percent of the GDP, believing that the bite such an expenditure would put on the rest of the economy would be intolerable (p. 8).

The capacity of the economy to absorb such a level may explain why their predictions failed to materialize.

Many critics of the current health care delivery system view it as inefficient. The inefficiencies are seen as contributing to the escalating health care costs. It has been reported that there are too many hospital beds and that care can be delivered in lower cost settings. Lamm (1988) supports this theory:

There are too many hospital beds, possibly too many doctors, and often they are not where they are needed. On a typical day in the United States, there are at least 200,000 empty hospital beds. In Colorado, as an example, 53 percent of all hospital beds were unoccupied in 1986. Consequently, the cost of an average day in the hospital rose 14 percent to \$782 with a good portion of that sum going to maintain thousands of unused and unneeded beds. There is far more to good health than having the most doctors or the best equipped hospitals (p. 92).

Some of the major successes in reducing health care costs have not come from hospital or medical care advances but from public health care prevention strategies. Throughout history, the great advances in public health have been "the result of improved sanitation, chlorination, pasteurization and refrigeration" (Lamm, 1988, p.92).

Health Care Insurance Trends

The public insurance programs will be hit severely with the predicted increase in health care costs. A more dramatic increase is expected in the Medicaid program in the next decade. "Medicaid has provided about 10 percent of national health care funds each year for the last two decades. As previously described, Medicaid spending rose dramatically in 1990 and 1991. By the year 2000, Medicaid's share of the National Health Expenditure (NHE) will reach nearly 21 percent. Projected health spending will place increased burdens on both Federal and State budgets" (Burzner, 1992, p.11).

"The health share of total state expenditures is projected to increase from 12.5 percent in 1990 to 18.8 percent in 2000, with all of this increase attributable to Medicaid. Faced with this situation, states have begun to look at ways to reduce costs, including the use of managed care" (Burzner, 1992, p. 11). Burzner (1992) also states that "the projections of Medicaid outlays based on the 1992 President's budget incorporated into this set of projections are higher than those used last year. Complete data for 1990 and preliminary data for 1991 indicate that expenditures were growing faster than anticipated"

(p. 11).

The most troublesome area for the U. S. health care system is not only that it is the most expensive system in the world, but that it has no provision to furnish a basic insurance package for every citizen. Many U. S. citizens are uninsured or underinsured. Current Population Surveys (CPS) by the U.S. Department of the Census were used to show trends in insurance coverage such as those experienced by the United States in the last 12 years (Levitt 1992):

- Holding a full time job for the entire year did not guarantee health insurance coverage. In the 1991 CPS, 18.7 million members of families headed by full-time, full year workers were uninsured, up 18.1 percent from levels reported in the 1988 CPS. In contrast, the total number of uninsured persons increased 11.9 percent from 1988 to 1991, indicating that relatively more full-time, full-year workers were becoming uninsured.
- From CPS survey years 1988 to 1991, industrial composition of the United States shifted toward service industries in which the provision of employer-sponsored insurance is less likely to be found. Simultaneously, the percentage of workers offered and/or able to afford insurance through their employment declined in almost every industrial sector.
- Together, these industry changes produced a 5 percent decline in the number of workers owning coverage through employment compared with those who would have owned policies in the absence of those shifts. Selected industries subsidized the provision of employer-sponsor health insurance to workers in other sectors by providing dependent coverage to employers in other industries. Sectors such as mining; manufacturing, and transportation, communications, and public utilities were found to cross-subsidize industries such as agriculture, forestry, fisheries, construction, retail trade services and the self-employed.
- Large regional differences exist in the percentage of the population that is uninsured. In 1991, 9.0 percent of the population in New England lacked health insurance coverage, while more than twice that percentage were uninsured in the West South Central States.
- During the 1980-1991 period, the number of uninsured persons grew by 30 percent while the population grew only 11.5 percent.
 Most of the uninsured population is non-aged (under 65 years of age) because Medicare almost universally covers the aged (over 65

years of age). In absolute terms (from the CPS 1991), three divisions-the West South Central, the Pacific, and the South Atlantic had more than one half of the uninsured, with 5.4 million, 6.8 million and 6.8 million respectively. Workers earning \$6-\$9.99 per hour had a 11.3 percent chance of being uninsured (p. 31).

Lack of insurance creates a financial barrier to health care in the United States. According to Levit et al (1992), "compared to individuals with insurance, the uninsured are less likely to seek care and more likely to receive fewer services" (p. 46). The fear is that the uninsured will seek care much later in the disease process and obtain it through the local emergency departments, one of the most expensive settings to receive primary care.

Given the demographic trends and predicted increase in health care services, many providers, consumers and purchasers are looking to design a program of explicit health care rationing as a mechanism of controlling health care costs. A survey by the American Hospital Association revealed the following, (Jensen, 1991), rationing health care services to help control soaring medical costs gets more support from providers than from consumers or employers, a recent survey shows. When asked whether health care should be rationed, 57 percent of the hospital chief executive officers and 46 percent of the physicians said "yes." This compared with only 22 percent of the employees and 16 percent of the consumers (p. 34). Silversides (1990) quotes Schwartz, author of the Painful Prescription: Rationing of Hospital Care, he states:

The number of days patients spent in U.S. hospitals fell 20% from 1981 to 1988. Schwartz thinks more savings are possible by eliminating unnecessary care, but that this will only provide temporary relief. The more significant problem is raising incremental costs, which are tied to population growth, new technologies and hospital wages, and is an openended, upward climb. Schwartz states that when savings made through the elimination of useless care are exhausted, the trend line is all we have left. I don't think anything we do will change the nature of the fiscal problem

and that means rationing (p. 546).

Goldbeck (1989) feels that "rationing of necessary care is not a moral, legitimate, or economically necessary choice until the inherent inefficiencies in the delivery system are reformed" (p. 48).

There have been several investigations into the impact the PPS system of reimbursement has had on post hospital care. According to Heinemann (1988):

The California Association of Rehabilitation Facilities surveyed members in 1984 and 1985 to assess the impact of PPS on the delivery of rehabilitation care for Medicare patients. "The result of the surveys are: (a) that time from onset of a disability to rehabilitation was shorter, (b) patients were admitted to rehabilitation hospitals with more acute level of severity. (c) more referrals were coming from a wider range of sources. (d) no change in test information and results from acute hospitals was observed, (e) fewer CAT (Computerized Axial Tomography) scans were completed before rehabilitation, (f) Medicare length of stay in rehabilitation was shorter or the same, whereas non Medicare length of stay remained the same, (g) the transfer rate from rehabilitation hospitals and units was higher or the same. (h) more frequent and thorough peer review and reviews by fiscal intermediaries were conducted, (i) closer reviews by in-house utilization reviewers were conducted to identify potential payment denials and, (j) increased therapy staffing was developed for outpatient programs and home health programs. Adverse consequences reported: (a) more inappropriate referrals to rehabilitation (referral of more acutely ill patients), (b) a decrease in patients medical stability and, (c) pressure to admit patients sooner. Significantly, no change in patients rehabilitation potential was reported" (p. 615).

Heinemann (1988) also reports that "Members of the National Association of Rehabilitation Facilities (NARF) have described instances of earlier discharge from acute care hospitals" and a "decrease in the number of medically stable patients who are ready for intensive rehabilitation." Some rehabilitation hospitals report an "increase in their average length of stay." Additionally, they report an "increase demand for rehabilitation services offered by home-health agencies" (p. 615). The trend to move patients earlier out of the short term PPS hospital was happening as early as 1984 and 1985.

The current health care system is subsidized by the working non-aged (those under 65 years) through taxation. As the demographics of the country change, the concern becomes one of whether this subsidization will support the cohort of baby boomers entering the eligibility age to become beneficiaries of the Medicare program.

Ettinger, (1991) states "life expectancy is increasing while the birth rate is declining, resulting in an upward shift in the age of the population. The fastest growing segment of the population is adults older than 65 years. It is estimated that the number of people in this age group will exceed 35 million by the year 2000 and 52 million by 2020" (p.1728). Ettinger (1991) informs us that among this elderly cohort, the proportion of those older than 85 years, is growing most rapidly.

The importance of this demographic shift is that the older an individual becomes, the more likely he or she will be affected with cancer. The incidence and prevalence of nearly all major cancers increase with age. This, despite advances in prevention, early detection, and treatment of cancer, the absolute incidence and prevalence of most cancers will increase dramatically over the next 30 years. This phenomenon is true not only for cancer but also for other age-associated disease, such as coronary heart disease, stroke, hip fracture, and dementia." There will be increased demand for cancer care services and strong upward pressure on health care costs due to the increased number of older people in society. Medicare expenses are expected to double by the year 2020, solely because of new numbers of eligible enrollees, and this 100 percent increase does not account for new technologies, treatment, or inflation. The increase in expenditures due to the growth of the older population will occur at a time when the relative numbers of young and middle-aged people who pay to support the Medicare system decline. This will raise the

proportional costs for the younger group in the form of higher income taxes (p. 1728, 1729).

Caplan (1989) states that the "United States is currently facing a dire emergency. We are in a situation of lifeboat ethics with respect to health care. The moral question is, what rules can we agree upon to guide us in answering the question of whom to toss over the side" (p.186). Rationing is the lifeboat. The American response has been to use the ability to pay to ration access. There is not a major transplant center in the United States which does not require a means test for liver, heart-lung, or pancreas transplants. The U.S. policy has also been to look closely at age as a criterion for access. Specialty procedures such as transplants, dialysis (prior to the Medicare program) are areas where surgeons must determine who will benefit the most for the longest period of time.

Approximately 15 percent of our people have no health insurance at any time, and at least 57 million non-elderly Americans lack health insurance for some part of the year (McDermott, 1994, p. 782). This does not include the underinsured and those on Medicaid, whose coverage cannot begin to provide them access that is consistent with good health care. "One thousand additional people lose their health insurance every month. Health care costs rise at 11 percent annually, further guaranteeing that more will become uninsured as employers become unable to bear the burden" (McDermott, 1994, p. 782).

Researcher's Personal Assumptions

Personal and professional experience as a health care provider and consultant has led to the development of beliefs and assumptions brought to this investigation. They include: (a) we need long term strategies to provide long term permanent solutions to

address the high costs of health care; (b) there must be a genuine consensus on whether the country will observe society's rights over individual rights; (c) health care is a right not a privilege; (d) future health care providers must be educated in a manner that prepares them to be effective stewards of the health care dollars allocated; (e) the goal of health care providers should be to continually evaluate the efficiency of the current health care delivery system and re-educate their work-force on the most cost effective strategies for delivering care while achieving acceptable clinical outcomes; and (f) the responsibility of appropriately discharging patients into the home with home health care, nursing home or rehabilitation unit has fallen squarely on the hospital discharge planners.

Therefore, one of the greatest challenges facing health care providers and therefore discharge planners as their agents, is the constant implicit rationing decisions made without a public debate or direction from the medical community. When public funding is decreased to balance federal or state budgets, the decision to continue or divest health care services rests with the providers. Hospitals and health care systems must make these hard choices every day and discharge planners must carry them out. The public and payers want to see the same level of service for less cost. How then do we reduce cost and retain current service levels until overall reform is achieved and how do we help discharge planning departments meet those organizational goals? Is explicit rationing the answer or are there other alternatives providers can pursue? Clearly, this is a politically volatile issue and one that must be reconciled very soon.

Significance of the Study

The significance of the study is in its ability to demonstrate the changes that have occurred in patient care management as a result of changes in government funding and

how that has affected the way discharge planners (registered nurses and social workers) spend their time with hospitalized patients executing discharge planning functions. Discharge Planning activities have been reordered in terms of the type and amount of time spent with patients. The study findings help to better link clinical practice with curriculum initiatives as perceived by the practitioners themselves. Curriculum development needs to include more proprietary strategies as well as financial and quality care content. A curriculum that is closer matched to practice will better prepare social workers/discharge planners for their expected roles. The curriculum of discharge planners has not kept pace with these changes and as a result the planners are finding emphasis placed on skills that were not stressed during their collegiate preparation. An examination of sample curriculum titles from colleges and universities across the country indicates that very little content is explicitly stated in the areas of health care reimbursement (DRG optimization, case management, utilization management), communication, securing resources and assessing levels of care. The health care industry is reorganizing itself in response to cost reduction initiatives. The reorganization is effecting the function and philosophies of many health care disciplines. Roles and responsibilities are changing. Curriculums must reorganize their priorities as well. This study will suggest that colleges and universities need to incorporate more content in the areas of health care funding, reimbursement, case management, utilization management, securing resources and assessing levels of care to better prepare registered nurses and social workers for the discharge planning role. The new role will require skills and ability to improve care in terms of the health care system.

Research Hypotheses

The following research hypotheses were addressed through the course of this study. The

means between the RAND studies and the sample hospital were not statistically tested because neither the standard means nor standard deviations were available for the RAND study.

 H_1 : There will be no statistical difference in the average length of stay and post hospital use between the RAND studies of 1984 and 1988 and the sample hospital 1994 data for medical surgical discharges.

 H_2 : There will be no statistical difference in the propensity to use post hospital services by age or gender between the RAND studies and the sample hospital data.

 H_3 : There will be no statistical difference in the top 10 diagnoses for post hospital use (rehabilitation, skilled mursing facility and home health care).

H₄: There will be no statistical difference in how the discharge planners rate the criteria used for screening patients in need of post hospital care.

H₅: There will be no statistical difference in the time spent across discharge planning activities, the value placed on those activities or the degree to which those activities were stressed as part of the discharge planners collegiate curriculum.

Limitations of the Study

The data analysis for this study linked patient records for hospital and post-hospital care for two discharge sites (home health and rehabilitation) for the sample hospital. An attempt was made to understand what kinds of patients use post-hospital care and how PPS has affected the management of those patients over time. The sample hospital was benchmarked against a larger empirical study conducted by RAND/UCLA. Means testing (between the RAND/UCLA data and sample hospital data) was not possible because no standard deviation or standard error data were available from the RAND/UCLA

publications. The generalization of the study would be limited to other short-term acute hospitals that matched the peer group for the sample hospital. Ultimately, the patient data files included very little clinical or diagnostic information. A logical next step for this study would be a patient-level chart audit, which would reveal many more detailed diagnostic variables. According to Steiner, "Clinical characteristics at the individual level play a central role in determining patients' post-hospital use of services. For four out of the five DRGs in skilled nursing facilities and home health care each, the more body systems involved in a patients' diagnoses, the higher the predicted probability of the patient's receiving services post discharge" (Steiner, 1993, p. 108).

Variables that were not examined as part of this study were the specific demographic characteristics of the sample hospital community. Medicare subgroups that are vulnerable to unequal treatment as Medicare beneficiaries would be the very old (over 85 years of age), women, non-whites, and the elderly poor. Income, race and gender in relationship to their representation in the community were not isolated. Instead all Medicare discharges from the sample hospital were examined, notwithstanding these variables.

The number of discharge planners/social workers responding to the survey is a limitation. The overall percentage of responses exceeds the norm for surveys, but in total numbers the sample is too small to perform more sophisticated statistical measurements of the means for the Likert scale. The face to face comparison of the means between the RAND/UCLA data and the sample hospital still proves valuable for trending purposes. Trends may indicate that patterns of care are changing as a result of the way hospitals are reimbursed.

Summary

Many initiatives have been implemented in an attempt to decrease health care costs with varied success. The trouble with escalating health care costs is that we are still unable to provide a basic benefit package to all of our citizens. Demographics are going to hamper future efforts to contain health care costs. By the year 2015 a larger percentage of the population will be utilizing services than the percentage that will be paying for them. Because the use of most health care services increases sharply with age, the change in the composition of the population will have a significant impact on health care spending. The aging of the population will also cause a shift from private to public financing. The Medicare share will increase as a larger portion of the population becomes eligible for benefits. Chapter 2 will begin to review the literature connected with health care reform efforts and its' effects on the function and philosophy of hospital discharge planners.

Operational Definitions

For the purpose of this study the following operational definitions are used.

Aftercare-Post-hospital care (see below).

Average length of stay—Total number of patient hospital days divided by the total number of cases.

Capitation payments—A risk-sharing reimbursement method whereby providers in a plan's network received fixed periodic payments (usually monthly) for health services rendered to plan members. Captivated fees are set by contract between the prepaid care plan (typically an HMO) and providers to be paid on a per-person basis, usually with some adjustments for age, sex, and family size, regardless of the amount of services rendered or costs incurred.

- <u>Discharge planner</u>—A trained health care professional who identifies and evaluates the anticipated health care needs of a patient following the patient's discharge from the hospital. Discharge planners often arrange for appropriate aftercare services.
- <u>DRGs</u>—Diagnostic related groups, which are 490 payment categories used to classify patients, and especially Medicare patients, for the purpose of reimbursing hospitals for each case in a given category with a fixed fee regardless of the actual costs incurred. DRGs are based on the principal diagnosis, the surgical procedure used, the age of the patient, and the expected length of stay in the hospital.
- Explicit rationing—A rationing program that explicitly or openly defines the choices the public would make about choosing one health care benefit over another. In the Oregon model, one example of explicit rationing, the services Medicaid would pay for were determined through public debate.
- HMO-A health maintenance organization; an organization that provides health care to voluntarily enrolled individuals and families in a particular geographic area by member physicians, with limited referral to outside specialists. An HMO is financed by fixed periodic payments determined in advance.
- Implicit rationing—Covert or tacit methods of making rationing decisions on health services. Implicit rationing is often called "soft rationing." Under implicit rationing, decisions about withholding services are made without public debate.
- Managed care—Any of various systems or plans for managing and financing health care delivery to ensure that services provided to managed care plan members are necessary, efficiently provided, and appropriately priced.
- Post-hospital care—Individualized medical services provided to patients after

- hospitalization, according to arrangements made through a discharge planning program. Post-hospital care is also called "aftercare."
- PPS—The Prospective Payment System, the system for making Medicare payments by DRG instituted in 1983 under the federal Tax Equity and Fiscal Responsibility Act.
 Hospitals now know prospectively what the reimbursement will be for Medicare patients.
- Short-term acute hospital—A hospital in which the average length of stay is under 25 days. Long-term care hospitals, which have an average length of stay of over 25 days, are not reimbursed under the DRG system. Short-term acute hospitals are also called "PPS hospitals" or "DRG hospitals."
- <u>Utilization review</u>—An evaluation by trained health care professionals of the appropriateness, and medical necessity of services provided to patients.

CHAPTER 2

REVIEW OF THE LITERATURE

This review of the literature connected with the effects of health care reform on the function and philosophy of discharge planners is presented in five phases. These phases (a) describe current concepts and beliefs regarding explicit rationing of health care; (b) evaluate quality-of-life definitions; (c) examine individualistic and communal views of health and human welfare; (d) examine the impact of the Prospective Payment System (PPS) on hospitals and patients, with special attention to the resulting increase in moving patients into the post-hospital environment; (e) review of curriculum issues as it relates to the preparation of discharge planners in the current proprietary environment; and (f) review the areas of curriculum that were stressed during the discharge planning professionals' collegiate preparation.

The diversity of current opinions on rationing and individualistic versus communal views of health and human welfare reaffirms the political volatility of health care reform in this country. At present, this political football is passed on to the providers who will execute the delivery system and who consequently must make the hard rationing decisions. Providers have responded to the rationing pressure by discharging patients much earlier than before and moving them into post-hospital care environments.

Many devices have aimed at reducing health care costs: the various procedures employed by managed care companies and health maintenance organizations include utilization review activities, assumption of financial risk through capitation payments to providers of care, and deliberate efforts intended to discourage hospitalizations or workups by medical specialists. Some have called for health care rationing under the

principle that what is good for society takes precedence over that which is good for the individual; care of the elderly, for example, has been targeted for rationing. As Overholt puts it, "surveys have indicated that the overwhelming majority of Americans support unrestrained care of the elderly until informed that to do so would require increasing their taxes" (Overholt, 1990, p. 225).

Implicit and Explicit Rationing of Health Care

Rationing "implies apportionment and, often, equal sharing; but it is truly extended to scarce things made available either equitably or in accord with need." According to Hadorn and Brook, "only two types of medical and surgical services are currently scarce relative to demand: organs for transplantation and, sometimes, beds in intensive care units" (Hadorn & Brook, 1991, p. 3328). Patients requiring transplants must wait in the queue regardless of their wealth or status to receive their ration of one organ. Therefore, there must be an equitable plan to distribute scarce organs among patients in need. This is rationing in the classical sense. In the case of intensive care unit beds, the physicians will "often modify admission criteria and discharge patients based on the number of available beds" (Hadorn & Brook, 1991, p. 3328). Stambouly, Pollack, and Ruttimann define rationing as a condition in which "not all care expected to be beneficial is provided to all patients" (Stambouly, Pollack, & Ruttimann, 1991, p. 154).

Although the state of Oregon attracted national attention as the first state to explicitly "ration" health care for the poor, health care is generally rationed implicitly throughout the country. Golenski maintains that it is rationed through "Medicaid eligibility—when 11 million Americans living below the federal poverty level without any form of health insurance cannot qualify for Medicaid" (Golenski, 1990, p. 16). Golenski

continues:

Health is rationed by reimbursement when those with Medicaid coverage are turned away by providers because of low state reimbursement rates. Health care is also rationed by access when the poor are denied care by the providers of last resort, usually county facilities because of overcrowding and insufficient funding. Health care is rationed in this country without coherent policies of public scrutiny and with no commitment to basic services for all citizens. (Golenski, 1990, p. 16)

The Oregon model goes beyond "a concern for coverage to address the content of medical care. In addition to examining who should be covered, the Oregon plan examines what Oregon Basic Health Services Act created The Oregon Health Services services they should be covered for" (Eddy, 1991a, p. 2135):

The Commission was charged with developing a list that ranks services by priority. On June 30, 1991, the state's legislature determined the total Medicaid budget which had the effect of drawing a line on the list; specific services will be covered in order of their appearance on the priority list until the budget is exhausted. An important consequence is that some services that are currently covered fall below the budget line and will be dropped from coverage. (Eddy, 1991a, p. 2135)

The Oregon legislature accepted the plan. As a result, Oregon would "no longer pay for organ transplants, but instead would use the money recovered for maternity care for approximately 1500 women" (Klevit et al., 1991, p. 912). A seven-year-old boy, Cody Howard, was "denied funding for a bone marrow transplant for leukemia; he died \$30,000 short of the \$100,000 needed to obtain the procedure, and became a cause célèbre in spite of the fact he was not in remission and therefore not a good candidate for the procedure.

Golenski (1990) pointed out that "arbitrary removal of one type of treatment without considering the entire spectrum of care was inherently unjust" (Klevit et al., 1991, p. 912). The Oregon Health Services Commission, appointed by the governor in August 1989, was instructed "to report . . . a list of health services ranked by priority from the

most important to the least important, representing the comparative benefits of each service to the entire population to be served" (Klevit et al., 1991, p. 912). The Oregon process has been deemed a decision-analytic approach to priority setting. In such a process, according to Hadorn, "outcomes of health services are explicitly defined, estimated, and assessed for relative desirability," and these "preference weighted outcomes are then used to develop criteria that ensure that preferred outcomes are maximized" (Hadorn, 1992, p. 1454).

The Moral Dilemma of Rationing

The concept of the "greatest good for the greatest number" faces various challenges to implementation. Hadorn predicts that one of the serious challenges is the "Rule of Rescue," the strong proclivity to provide aid to identified victims of illness or accident. Even if suffering and denial are fairly allocated, individual instances of suffering and denial are extremely difficult to accept" (Hadorn, 1992, p. 1459). One of the most serious challenges to the utilitarian "greatest good for the greatest number" implementation of health care is that of potential discrimination against people with disabilities:

Recall that a two-step process is required to translate outcome assessment into policy: 1) estimation of outcomes (principally life extension and improvements in quality of life, i.e. reduced pain and improved function) and 2) the assignment of preference values to those outcomes. Both steps in this process are vulnerable to charges of discrimination. (Hadorn, 1992, p. 1455)

The Oregon Health Services Commission obtained through random telephone surveys the citizens' value for various states of impaired health or functioning, which the commission used for ranking the services to be provided and listing those that would not be provided. The National Legal Center for the Medically Dependent and Disabled, Inc.,

of Indianapolis, Indiana, concluded that the Oregon plan violates the Americans with Disabilities Act: "This conclusion was based on the belief that the values for health states obtained during the telephone survey were 'arbitrary and discriminatory' and reflected prejudicially pessimistic evaluations of being disabled. Persons without disabilities are more likely to undervalue conditions they have not experienced" (Hadorn, 1992, p. 1455). Overall, according to Hadorn, the Oregon Medicaid priority-setting process excludes patients who qualify for Medicaid by virtue of being disabled (Hadorn, 1992, p. 1456); "It was felt that the center's major argument that the preferences obtained during Oregon's process were 'prejudicially pessimistic' is not relevant to currently disabled patients; rather it relates to future disabled patients who might be denied beneficial treatment" (Hadorn, 1992, p. 1456).

Another form of rationing practiced today is imposed expenditure targets.

Congress, by enacting expenditure targets, "puts the onus for rationing on doctors"

(Rosner et al., 1990, p. 554). The expenditure targets limit the money available to pay for Medicare service.

An expenditure target is a prospectively determined spending threshold that would be established each fiscal year for physician services under Medicare. Congress has used a similar process for many years as part of its annual budget deliberations. Each year, a budget is submitted showing what Medicare expenditures are expected to be under law. Proposals also are made to reduce these expenditures through budget reduction legislation. (Haug & Parks, 1989, p. 25)

Individualistic and Communal Views of Health and Human Welfare

According to Callahan, real success at cost containment and curbing escalating health care costs will "require the majority of Americans to surrender their cherished belief that each individual has the right to all the highest quality care he or she needs or wants to

maintain optimal health and longevity" (Grimaldi, 1990, p. 32). Callahan's solution "requires shifting from an individualistic to a communal view of health and human welfare," under which Americans would:

- Cease considering health care as an absolute good and good health as an end in itself.
- Provide health care according to principles of sufficiency and full accountability.
- 3. Replace costly curing with less expensive caring.
- 4. Deem national health care spending sufficient when additional spending would have little or no impact on the functioning of social institutions and the ability of a majority of citizens to fulfill their characteristic social roles.

 (Grimaldi, 1990, p. 33)

Callahan (1990) suggests that "we cherish the idea of limitless medical progress, which has come to mean that every disease should be cured, every disability rehabilitated, every health need met, and every evidence of mortality, especially aging, vigorously challenged. . . . We spend an increasingly insupportable amount of money on health care but do not get good value for our money nor better equity in terms of access to health care" (Callahan, 1990, p. 1811). Many insist that exhaustive efforts should be made to eliminate unnecessary, wasteful, and excessive medical treatments in the system before rationing is implemented. Yet, Callahan argues, "even if we had the most efficient system of health care in the world, the fact of an aging population and the intensification of services that medical progress engenders would still tend to expand costs. This is coming to be the experience of Canada and the European countries, which already have in place

many of the very reforms we believe to be our salvation" (Callahan, 1990, p. 1812).

Larkin suggests that hospital executives will take an active role in health care rationing: "As government reimbursement policies become more stringent, an increasing number of rationing decisions are necessary" (Larkin, 1989, p. 22). According to Sister Geraldine Hoyler, vice-president for finance of the Holy Cross Health System, South Bend, Indiana, "we are constantly looking at which services to continue. In the days before prospective pricing, most providers could do just about anything they wanted. Now we have to make choices" (Larkin, 1989, p. 20). Hospitals are forced to make these decisions without the guidance of the community, government, or medical direction. Richard Lamm, former governor of Colorado, took severe criticism for asking "Is it the best use of society's resources?" (Larkin, 1989, p. 23).

Government's Role in Rationing

Government has abdicated its role in the process of rationing, according to Ron Kovener, vice-president of the Health Care Financial Management Association (HFMA), Washington, D.C.: "clearly, the federal government doesn't want to pay for all the services Medicare beneficiaries want to use" (Larkin, 1989, p. 22). Instead, the government shifts the decision to hospitals by underpaying them. The hospitals really have no choice but to deny certain people care if they want to remain operational. Medicare's Prospective Pricing System for hospitals was intended to encourage hospital efficiency, but "instead has become a tool for indiscriminately cutting the federal budget. Congress has said that they will continue to limit payments until they see more blood on the floor" (Larkin, 1989, p. 23).

We need agreement on what we mean by "a right to health care." Do Medicare beneficiaries have a right to more services than the government is willing to pay for? . . . Any realistic definition must be responsive to two basic problems we face, the first is health care expenditures and the second problem is equity and access. . . . Resources allocated to medical care reflect the citizenry's perception of the benefits that care confers as compared with alternative benefits. The second part is the individual's right to an equitable share of total health care resources, where equitable means the distribution of care would reflect medical needs and the costs and benefits of care rather than individual income, wealth, political power, or social status. The first right speaks to the need to determine a level of expenditure, and the second addresses distribution issues, how we divide the pie. (Fein, 1990, pp. 321-22)

Making Rationing Decisions from the First or Second Position

People have different health care needs depending on their being sick or healthy, the presence or absence of a preexisting medical condition, and the level of severity that condition will present. "In the context of health care, a preferable definition of equitable is that services received by each individual should provide them with approximately equal amounts of benefit per unit of resource consumed" (Eddy, 1991d, p. 2399). We are faced with a serious conflict between the individual and society. When we consider the greatest good for the greatest number, which is the societal approach, we examine the allocation of health care resources across a patient population. When we evaluate the individual's perspective, we see it as an individual patient right to care. When decisions are made from the individual level, "it is more difficult for the decision maker to determine when an individual is getting a disproportionate share of resources" (Eddy, 1991d, p. 2400). When the conflict is examined from the individual perspective, it is not apparent what effect the one person will have on other patients or society. When information on individuals is aggregated, such as that of insurance companies or government entitlement programs, it becomes apparent that some individuals may be using a disproportionate share of the resources. This becomes a problem when resources are expended on a group of

individuals with little resulting benefit, while others get few resources that would have yielded much greater benefits. Eddy contends that to resolve this conflict we will need to "let people decide what they are willing to pay for, respect those decisions, and adhere to those decisions" (Eddy, 1991, p. 2401). The question becomes one of when people decide on what they will pay: before treatment is needed or after treatment is needed. According to Eddy, if policies are decided from the first position (the before-illness or public health perspective), "more people will live longer, with higher quality, at lower cost than if policies are defined from the second position (patient's perspective). Policies designed from the first position provide the greater good for the greater number" (Eddy, 1991, p. 2401).

Until the public has made its decision on what it is willing to pay for, the government will continue to decrease Medicare and Medicaid spending. As O'Malley states, "under the DRG payment system in which hospitals have an incentive to do as little to—and for—a patient as they possibly can, this is clearly rationing" (O'Malley, 1991, p. 87). The concern is that Medicare (DRG-reimbursed hospital care) is rationing on the basis of age, since nearly all Medicare beneficiaries are 65 or older. Schneider contends that "any decision to withhold care should be based on other criteria such as the prognosis of the patient and the desires of the patient and family. When age is employed as a criterion for decision making, it infers that older individuals make up a homogeneous group" (Schneider, 1989, p. 907). We know that aging produces a group of heterogeneity. "Studies of metabolic processes reveal an enormous heterogeneity to aging, some individuals having declines in functions while others have minimal impairment" (Schneider, 1989, p. 907).

According to Callahan, we experience two forms of rationing. The first, "soft rationing," "might be understood to include the use of covert or tacit methods of making decisions; things simply happen without public debate, but manipulations nonetheless are going on that make a difference in who gets what. The soft form of rationing is usually preferred because it is less conspicuous and politically volatile" (Callahan, 1988, p. 261). Soft rationing therefore is not open to public discussion and is often unfair. An example of soft rationing would be "the discharge of patients from hospitals who are not medically ready to leave" (Callahan, 1988, p. 262). The second form of rationing, "hard rationing," would explicitly define the public's choices of one health care benefit over another, as in Oregon, where decisions were evaluated and made openly with public input. In order for the latter to occur, the public needs to perceive a need to constrain the rate of an increase in health care expenditures. The American people seem, however, to be caught in a dilemma of wanting more without being willing to pay more, in taxes or out of pocket, to get it. This dilemma may help explain legislators' preference for the soft rationing approach. As a result, according to Young, we are left with three conflicting forces: "the public perception that we should contain costs (without reducing services), new technologic capabilities, and the belief in the medical market—we are left in extreme turmoil" (Young, 1989, p. 3A). Connelly argues that the turmoil produces the following results:

About 33 million Americans are chronically without insurance or access to care. As many as 62 million Americans at any given time are without insurance or access to care. Our country's mortality and morbidity rate ranks poorly when compared to that of other advanced countries. Our expenditures on health care are 12.2 percent of gross national product—substantially more than the expenditures of other advanced countries. We spend billions of dollars annually on tertiary neonatal services with limited results and yet we spend comparatively little on prenatal care programs that would produce far better results. We spend millions of

dollars annually in hospital intensive care units across the country on futile care for terminally ill patients. Yet the same system that reimburses abundantly for these services provides little, if any, reimbursement for health screening or health education—initiatives that could produce better results. Our tort system and the nebulous concept of medical negligence cost society dearly, yet medical practice patterns have not improved as a result. The cost of this system in terms of defensive medicine has been estimated in the billions of dollars annually. We spend billions of dollars annually on unnecessary medical care. (Connelly, 1991, pp. 13)

Research by Wennberg and the RAND Corporation suggests that at least 20% and perhaps over 40% of common major medical procedures, such as coronary bypass and cesarean section, are performed when clinical indications do not exist or are equivocal (Connelly, 1991, pp. 13-14). If we cannot agree on clinical indications for common medical procedures, how can we assess the efficacy of the care we provide?

Where to begin is the question. Before explicit rationing is implemented, should the system be aggressively overhauled to cut administrative expense, unnecessary medical care, and exorbitant malpractice awards; to slow technological advancement; and to redesign delivery systems? First we must decide whether we as a society deem health care a "right"; according to Connelly, "our society must resolve the issue of whether health care is a guaranteed right in principle before we begin evaluating the scope of benefits and the type of system we need to ensure equitable, efficient health care" (Connelly, 1991, p. 16). Connelly compares the right to health care to the societal right to education or the right to due process. "Only after these rights were established did we begin to define and limit their scope" (Connelly, 1991, p. 15).

How have we done in the cost containment arena? We have successfully redistributed dollars:

Lengths of stay and admission rates to the hospital for patients insured by Medicare and for all third parties have decreased dramatically. The fraction of our dollars going to inpatient hospital services has dropped and

the fraction going to outpatient services has increased as has the fraction going to other outpatient services and physicians. (Young, 1989, p. 4A)

Callahan states that the "DRG system introduced in the 1980s to control hospital costs has been a relative success so far as the cost of inpatient care is concerned" (Callahan, 1988, p. 262). He further comments that it has also pushed "many patients out of hospitals sooner and into other outpatient care or nursing home settings. Total costs have remained about the same; they have just been pushed from one place to another" (Callahan, 1988, p. 262).

Examining the Impact of PPS on Hospitals and Patients

The advent of the Prospective Payment System (PPS) for reimbursing inpatient hospital services changed the incentives under which hospitals make decisions regarding ongoing inpatient hospital treatment. Under the previous cost-based system (before PPS), hospitals had the incentive to keep Medicare patients in the hospital. Medicare under this system would reimburse hospitals for patients' extended stays, which would contribute more revenue to cover hospitals' fixed overhead costs. The hospital under PPS is paid one lump sum for the patient's specific diagnosis irrespective of resource use or length of stay, and is thus discouraged from extending the patient's time in the hospital. Consequently, the hospital loses no revenue and stands to gain if it discharges patients before the dollars are used. This change in financial incentives for hospitals has encouraged greater use of post-hospital care or postacute care provided by skilled nursing facilities, rehabilitation units, and home health care agencies; hospitals that discharge Medicare patients to these providers will reduce their costs with no loss of revenue. Evidence suggests that hospitals have been discharging Medicare patients "quicker." Neu and Harrison reported in 1988 that "the average length of stay for all Medicare patients in

short-stay hospitals has declined from 10.5 days in fiscal year 1981 to 8.4 days in fiscal year 1985" (Neu & Harrison, 1988, p. 2). During their study, the average hospital length of stay for this sample "declined from 9.8 to 7.8 days" (Neu & Harrison, 1988, p. 9). According to recent national reports, the average length of stay for short-stay nonfederal hospitals in the United States is 6.0 days. Average lengths of stay by geographic region were 5.1 days in the West, 5.7 days in the South, 6.1 days in the Midwest, and 7.0 days in the Northeast (Graves, 1993, p.2).

The Fitzgerald group from the Indiana School of Medicine researched the change in management of hip fractures before and after implementation of PPS. Their review of hospital and nursing home records of elderly patients admitted with hip fractures to a large community hospital showed that "during the period 1981 to 1986, the mean length of hospitalization decreased from 21.9 to 12.6 days" (Fitzgerald, Moore, & Ditties, 1988, p. 1392). Inpatient physical therapy sessions decreased from "7.6 to 6.3 sessions and the maximal distance walked before discharge from the hospital fell from 93 feet to 38 feet" (Fitzgerald, Moore, & Ditties, p. 1392). The patients' discharge site after hospitalization also saw a dramatic change: "The proportion of patients discharged to nursing homes rose from 38% to 60%, as did the proportion remaining in nursing homes one year after hospitalization from 9% to 33%" (Fitzgerald, Moore, & Ditties, 1988, p. 1392). The study further suggested that there were not sufficient outpatient services or adequate nursing home rehabilitation programs to manage the needs of the patients experiencing shorter hospitalizations. This shortage has driven the increasing development and use of post-hospital care.

The debate in health care has narrowed down to the following arguments.

Shifting demographics will increase health care spending as the baby boomers enter the entitlement age brackets. According to Kalb and Miller, "demand is driven by an aging society as well as by the emergence of an ever expanding population of 'potentially salvageable' patients produced by advances in noncritical care medical and surgical techniques" (Kalb & Miller, 1989, p. 2389). And this demand increases in an era when most Americans still insist that fairness requires doing it all. According to a poll for Newsweek, "76 percent of Americans said they were unwilling to accept less choice of doctor or hospitals—even if it helped bring down health care costs and make universal coverage possible" (Beck, 1994, p. 30). Can we do everything for all U.S. citizens? According to the same poll, "more than half of those polled want to preserve high-tech diagnostic tests like magnetic resonance imaging (MRI) and computerized axial tomography (CAT) scans, use of specialists, experimental medicine, and care for the very old—and for tiny premature infants. Forty-nine percent even favor continuing expensive long-odd operations like separating the Lakeberg twins" (Beck, 1994, p. 30).

According to Harris, "obtaining maximum benefit from health resources is more important than distributing them justly" (Harris, 1988, p. 262). "This notion runs at odds with the American spirit and our medical progress to date" (Beck, 1994, p. 35). Clearly the U.S. electorate is at odds over how health care reform should be approached. Runaway health care costs are taxing both the private and public sectors of the country, jeopardizing the country's ability to remain a competitive force in the world economy. Until a political consensus is achieved, explicit health care rationing reform or change in health care allocation will occur only incrementally. Health care providers will continue to pursue cost reduction alternatives, such as shifting acute inpatient hospital care to post-

hospital settings. Only through continual health systems evaluation, redesign, and reengineering can health systems hope to meet the needs of their communities in the present and future.

Examining the Educational Preparation and Hospital Role of the Professional Staff Facilitating Post-Hospital Care

The health care allocation decisions made at the state and federal level are eventually enforced at the hospital level. Hospital discharge planning departments find themselves at the center of the health reform controversy. They must facilitate the early discharge of patients as a result of the DRG payment system. Kadushin and Kulys state that "discharge planning in hospitals is still performed primarily by social workers despite the growing tendency of others to assume this responsibility" (Kadushin & Kulys, 1993, p. 713). Physicians may be in control of the patients' budget and monitoring of resources while social workers are charged with securing post-hospital services and facilitating the physicians' directives for patient placement. According to Kulys and Davis, "results of other studies indicate that the provision of concrete services is considered to be the most important social work function" (Kulys & Davis, 1987, p. 102). Kadushin and Kulys (1993) have urged that social work's role in discharge planning be examined across a continuum stretching between a role confined to securing concrete resources and a purely counseling role. Is the provision of discharge planning primarily the provision of concrete services, counseling, or both?

This investigation measures time spent on tasks to determine which work behaviors are relevant to a job and to assess whether social workers and registered nurse (RN) discharge planners feel they have been adequately prepared to meet the change in

work tasks. New market realities converging on hospitals are changing the way in which discharge planning services are being provided. New cost-reduction initiatives, such as DRGs under Medicare and managed care companies, have reduced benefit coverage and increased deductibles as well; these initiatives have seriously changed the way in which social workers and RN discharge planners are able to interact with their clients. Visits must now be telescoped into one or two interactions over the course of a shorter hospital stay. Only the most urgent or serious issues can be considered and addressed before discharge from the hospital.

Another influence on social work and RN discharge planning practice is the expansion of proprietary owners of health care services. "Nonprofit organizations are primarily motivated by altruistic concern for the needs of the service population while proprietary or for-profit agencies have as their primary motivation the generation of profits" (Hancock, 1994, pp. 121-122). The not-for-profit hospitals are feeling the presence of proprietary pressures, such as the advent of DRGs, which originally were designed to foster a profit mentality in managing cases. Thus, according to Hancock, "the influence of the market outlook in the human services includes both the increase in forprofit organizations and the pressure of the proprietary presence on private and public agencies. The struggle to survive through competition and the bidding for 'purchase of productivity' in quantitative terms are some of the pressures felt in non-profits" (Hancock, 1994, p. 122). "The shortened length of stay will intrude on social workers' ability to assess patient and family needs and deliver optimal services. The limited time available will force social workers to focus mainly on discharge planning and narrow the social work role to what is expedient" (Edinburg, 1988, p. 125). As Hancock states, "most

social workers are poorly prepared for the ethical problems they face as marketing and profits become the guiding principle of service delivery. The profession could lose its sensitivity to issues of social justice" (Hancock, 1994, p. 124).

Review of Curriculum Issues

Hancock, like Ortiz (1987), urges that "if educational programs are to be effective in helping students with the complex practice issues raised by the merger of business and human services, then incorporation of the proprietary movement into the curriculum is critical, but curriculum efforts to address the impact of privatization on direct practice have received little attention" (Hancock, 1994, p. 124). Moreover, not all social workers agree on whether it is appropriate that their services contribute to profits. Such a condition seems to be in direct contrast to the philosophical commitment and evolution of the profession. Also, social workers and registered nurse discharge planners have had no control over the economic and political events producing the current service environment. According to Hancock, however, "the overriding goal of education is to ensure that students have the professional knowledge, skills, and ethical decision making abilities deemed essential for practice in today's market system" (Hancock, 1994, p. 126).

Ortiz has suggested that the health care system be used as a model for examining trends in social welfare policy:

The health care system also provides a good example of the dramatic changes in practice brought about by the proprietary movement. Edinburg (1988) gives a useful review of the events that have occurred for hospital social workers as the health care industry has shifted to income-producing services, including the advent of DRGs; the resulting prominence of social workers in discharge planning and pressures for early discharge of patients; designation of the physician as the primary professional responsible for cost containment and for determining the need for ancillary resources including social work services; the potential loss of social work participation in policy and organizational decision making; and the increased conflict

between management and social work functions. (Ortiz, 1987, p. 129)

The social work profession is under severe pressure to adapt to the new market forces. The educational "efforts must be directed toward adaptive, flexible responses on the part of those who socialize future social workers into the profession" (Hancock, 1994, p. 137).

An area that may influence the effectiveness of a discharge planning process is the education, training, and orientation of the discharge planning personnel in the areas of health care reimbursement and clinical levels of care that the DRG system has brought about. Case management has evolved as a mechanism by which hospitals can facilitate the timely discharge of the patient, with case management defined as the process by which patients are monitored for resource use and length of stay and abide by a prescribed schedule of medical events. Most case management processes are closely linked to discharge planning activities. Hospital discharge planning departments have become the mechanism by which health care quality is maintained or enhanced while health care costs are reduced.

Hospital discharge planning is defined as the process of assessing the needs of hospitalized patients for post-hospital care and developing a coordinated plan to provide the care needed. This process is central to the hospital's financial viability (i.e., patients under DRG reimbursement or managed care plans are admitted with a prescribed budget) and to the quality of care across the continuum of need. Discharge planning by design is a multidisciplinary process. All professionals rendering care for the patient must now meet preordained time lines for executing the plan of care. The primary responsibility has fallen on discharge planners (nurses or social workers) to facilitate the post-hospital plan of care.

The discharge process is affected by the pressures to reduce lengths of stay and by federal policy interventions that force efficient use of scarce resources. The focus of discharge planning has changed from one of counseling and support for families and inclusion in the decision-making process to one of securing hard resources and transferring patients out of the hospital as quickly as possible. Most hospital discharge planning departments are composed of social workers (these are usually the majority of planners; see Kadushin & Kulys, 1993) and registered nurses. Social workers have always had to balance the needs of their individual clients with those of the institution. The DRG system, as has already been noted, creates within the hospital a strong incentive to treat patients efficiently and discharge them promptly. According to Holden, "by highlighting the institution's economic incentive to achieve prompt discharge, the DRG system adds significantly to the challenge of maintaining a balance between client and employer needs" (Holden, 1989, p. 13). The challenge to discharge planners is greater than ever. "If hospital workers respond to increased administrative pressures to shorten hospital stays, they also must provide post-hospital health supportive services for a needier and more dependent population" (Wolock, Schlesinger, Heinemann, & Seaton, 1987, p. 62). There is a lack of consensus on what tasks constitute the social worker's function in this new world. "If a generalization is to be made, it is that members of other professional groups do not expect social workers to play a role in the realm of counseling or the provision of psychosocial services but to deliver concrete services and that tasks in the latter area are ranked by social workers as less important than are tasks in the former" (Kulys & Davis, 1987, p. 1030). According to Kadushin, "when time constraints are severe, providing concrete services such as finding a patient a place to live or someone to provide care, is

considered essential and takes precedence over providing psychological services, which may be viewed as only marginally related to expediting discharge" (Kadushin & Kulys, 1993, p. 722). Social workers themselves may view discharge planning as devoid of much counseling activity, Kadushin and Kulys maintain, "because many of the outcomes are predetermined based on fairly quantifiable indicators such as the patient's physical and mental status, availability of community resources, and the presence (and willingness) of family members to provide care after discharge" (Kadushin & Kulys, 1993, p. 722). This process may be viewed as routine and not defined as a counseling activity. This view also begs the question whether, given the educational preparation of social workers, discharge planning is properly defined as professional social work. Interestingly, after the introduction of PPS, which was completely phased in by 1987, "the literature has asserted that because of cost and organizational constraints resulting in shortened time frames, social workers engaged in discharge planning require more rather than less professional expertise" (Kadushin & Kulys, 1993, p. 723). The results of Kadushin and Kulys's study indicate that social workers found the provision of concrete services to be the primary focus of discharge planning and spent little time on counseling.

Kadushin and Kulys further state:

Responding to the needs of patients and families and providing the with real choices will continue to be difficult, as in the future even greater emphasis will be placed on cost-containment measures and on quantifying, categorizing, and routinizing the delivery of health care. Because of those cost-containment measures and organizational imperatives, discharge planning activities may not be very different whether they are provided by social workers, nurses, or administrative personnel. (Kadushin & Kulys, 1993, p. 724)

Schools of social work "are charged with preparing practitioners, and the majority of students completing degrees will function primarily as clinicians. Thus it is

for curricula to keep pace with changes in practice and for faculty to remain connected to those who are working in the field" (Ross, 1994, p. 154). Ross continues:

Many social workers are coming to the cruel realization that their contributions as team members, discharge planners, and family counselors and advocates can be dispensed with. External case managers determine insurance coverage and benefits and make arrangements for services. Frequently hospitals are taking a short-sighted view in their evaluation of which employees are essential to operations. Workers in the "new" organization perform many functions that cut across professional boundaries and job classifications. (Ross, 1994, p. 155)

The future is here, and in many ways health care institutions are being forced into surviving under actuarial models (driven by cost containment initiatives) that give little consideration to family, patient, or physician preferences. Variance from a prescribed or routine set of protocols is not seen as affordable. Individuality has given way to routinization of care delivery. As a result, discharge planning, whether it is executed by social workers or registered nurses, will make little difference in the provision of services. Nurses as discharge planners may initially play a lead role in determining level of care (clinical physical assessment), but over time this activity will be determined more prospectively. Predictive models of case management will forecast which patients will need post-hospital care, and those patients will be steered into lower levels of care sooner (therefore costing the health care system less). During this phase of management, there could be less need for a nursing function in discharge planning because the predictive models may eliminate the need for this task.

The curricular implications of these changes for social workers and registered nurses are critical. Academia must grapple with the complex professional issues raised by new health care reimbursement policies and the increasing influence of the proprietary culture.

The inclusion of proprietary content in the practice area for social workers and nurses requires an examination of the appropriateness of these two professions performing discharge planning functions as it relates to current and future clinical practice. Both social work and nursing are under severe pressure to adapt and respond to—and persevere in—an ever-changing, dynamic health care environment. Not only is there concern about the professional future of these two groups as it relates to discharge planning, but the well-being of the patients and their families is also in question. Patients who leave the hospital sooner may meet actuarial goals but may not meet quality-of-care objectives. Little has been published on the overall effects of the shortening of episodes of management on quality of care.

Has the education of social workers and nurses adequately prepared them to function in the role of discharge planning? In this research, a survey of a hospital discharge planning department measures the perceptions of the clinicians currently working in this field.

Summary

The basis for the health care cost crisis has been examined from financial, political, and provider frameworks. The themes that emerge from a review of the literature are: (a) health care costs must be reduced; (b) there is no consensus on how this should be done; (c) in order to stay financially viable, providers are left with discharging patients sooner and often into post-hospital settings; and (d) it is debated whether discharge planners (social workers and nurses) are prepared to facilitate these processes until health care reform is mandated.

The inclusion of proprietary content into the current curriculum for social workers

and registered nurses is a necessary body of knowledge for the discharge planners to posses. The profession of hospital social work is moving away from counseling patients and families and is shifting toward the securing of hard resources for post discharge placement. Curriculum development at the collegiate level must recognize this shift in hospital practice. The change in practice is significant and collegiate preparation must better meet learner needs for practice in the current environment. The change in practice for discharge planners, whether they are registered nurses or social workers, will be constantly changing as a result of further cost reduction initiatives. Hospital lengths of stay are predicted to contract further, and more patients will be moving to post hospital settings even sooner. If hospitals are to survive the new cost reduction initiatives, they will need a knowledgeable, flexible work force in the area of finance and managing patients over time and setting within prescribed budgets.

CHAPTER 3

METHODOLOGY

Study Design

The sample hospital and health care system provided patient level data for a full fiscal year (1994/95) on all Medicare medical surgical discharges. A discharge planning survey was used to capture the specific characteristics of discharge planning functions at the sample hospital. The following information was retrieved for analysis on the subject population described above: Individual case records had the following information retrieved from the hospital information system for fiscal year 1994-1995: patient history number, assigned Diagnostic Related Group (DRG), hospital LOS, primary ICD-9 code (a diagnostic coding assignment given to help classify the patient in the correct DRG), age, gender, primary and secondary insurance payer, and discharge destination, costs, and reimbursement. Patients discharged to the rehabilitation unit or home health care agency had their records retrieved for the use of those services for fiscal year 1994-1995.

The Medicare Prospective Payment System (PPS) in 1983, described in earlier chapters, was introduced in 1983 as a method of curbing increased medical care costs and was phased in over four years. Under PPS, hospitals faced strong new incentives to discharge Medicare patients as rapidly as possible. PPS provided new encouragement for the use of post-hospital care provided by skilled nursing facilities, home health care agencies, and rehabilitation units, because hospitals under PPS can reduce lengths of stay by discharging patients to some form of post-hospital care. Case management programs were introduced in the late 1980s in response to the new PPS reimbursement methodology. Hospitals are reimbursed according to geometric-mean lengths of stay for

each DRG. Reimbursement is based on the average resource use for that DRG, an average determined by the Health Care Financing Administration (HCFA). Critical paths, designed to be followed closely by the health care team, are a cornerstone of any case management program. The paths, predicted and charted for selected DRGs, prescribe the treatment events by each hospitalized day with the intent of keeping the patient's care within the prescribed LOS and DRG reimbursement. According to Neu and Harrison, "because there is some seasonality in the need for medical care, it is desirable to base analysis on a full 12 months of Medicare experience. It is also desirable to avoid using information from the year during which hospitals were converting to the prospective payment system; taking into account the changing situations faced by hospitals would considerably complicate the analysis" (Neu & Harrison, 1986, p. 9).

Fiscal year 1994-1995 was selected for the sample hospital analysis because it yielded the most recent data. The RAND studies were selected because of the empirical value provided by measuring the change before and after PPS implementation, since PPS was fully implemented by 1987. Hospitals had the period 1983-1987 to ready themselves for the new reimbursement method and develop post-hospital programs as well as to change the management approach of the discharge planners. The 1994 fiscal year was selected as an endpoint because it allowed an analysis for the most recent fiscal year for which data would be available. As Neu and Harrison state, "it would be desirable to base analysis on the most recent experience available. Use of home health care in particular has grown rapidly in recent years, and analysis based on earlier years might present a misleading picture of current patterns of care" (Neu & Harrison, 1986, p. 9).

If post-hospital care is in fact being substituted for acute hospital care days, then it

is fitting to examine the impact of diagnostic related group (DRG) Medicare reimbursement on lengths of stay initially and again nine years later. Shorter hospital lengths of stay with coexisting increases in post-hospital care may be one indication that substitution of post hospital services for acute hospital days is occurring. Measuring the perceived effectiveness and educational preparation of the discharge planning department, as well as its power and influence, also emphasizes that hospitals feel this is a significant strategic function for the organization. In addition, examining the professional staff mix (i.e., social workers and registered nurses) and the education and training of the discharge planning staff identifies areas of strength as well as deficits that can be used to enhance the educational curriculum and overall effectiveness of the discharge planners.

Hypotheses Tested

The following null hypotheses were developed and trended over time examining means and percentages. Standard errors and deviations were not available from the published RAND studies. Therefore means testing was not possible.

H₁: There will be no statistical difference in the average hospital length of stay and post hospital use between the RAND studies of 1984/85, 1988 and the sample hospital 1994 data for medical surgical discharges.

H₂: There will be no statistical difference in the propensity to use post hospital services by age or gender between the RAND studies and sample hospital data.

H₃: There will be no statistical difference in the top 10 diagnoses for post hospital use (rehabilitation, skilled nursing facility and home health care).

H₄: There will be no statistical difference in how the discharge planners rate the criteria used for screening patients in need of post hospital care as compared to changes

discovered in the propensity for certain patients to use post hospital care.

H₅: There will be no statistical difference in time spent across discharge planning activities, or the value placed on those activities, or the degree to which those activities were stressed as part of the discharge planners collegiate curriculum to determine whether the curriculum has kept pace with changes occurring in the health care delivery system.

Setting

The setting for the study was a 401-bed not-for-profit community-based medical center. The medical center is classified as a short-term acute care hospital that has participated in the Medicare DRG reimbursement system since its inception. Both discharge patient data and a discharge planning survey were used to capture data from the sample hospital.

Selection of Data

All Medicare discharges for fiscal year 1994 were reviewed, with the exclusion of the following:

- a) All psychiatric DRGs.
- b) All maternal and child health DRGs.
- c) Patient records recording hospital charges of zero. (Such discharges are obviously associated with special problems.) Those problems could be categorized as inappropriate admissions, errors in data gathering or entry.

Hospital cases that were discharged to the rehabilitation unit or home health care agency for the same fiscal year (1994-1995) were also examined. Records from skilled nursing facilities were held by multiple proprietary and municipal owners and were unavailable for this study. Discharges to home health care were examined for length of

stay (LOS), visits, and costs. Baseline data for comparative purposes were utilized from RAND Research (RAND/UCLA Center for Health Care Financing Policy Research).

Two publications were utilized for this investigation: "Posthospital Care before and after the Medicare Prospective Payment System" (principal investigators and authors C. R. Neu and Scott C. Harrison; published in March 1988 and supported by the Health Care Financing Administration, U.S. Department of Health and Human Services) and "Prospective Payment for Medicare Posthospital Services: Some Empirical Considerations" (principal investigators and authors C. R. Neu and Scott C. Harrison; prepared for the Health Care Financing Administration, U.S. Department of Health and Human Services; published in 1986 by the RAND/UCLA Center for Health Care Financing Policy Research).

Survey Instrument

Field Testing

A survey instrument was developed utilizing the Likert rating scale. A meeting was convened with the sample hospital management to review the instrument. The following management personnel were present for the meeting: Director of Continuing Care (Discharge Planning, Social Work, and Case Management), Director for Home Health Care, Cost Accounting Manager (Finance), Medical Records Director, and the Chief Executive Officer for the Health System. The following recommendations were made to the original survey instrument.

- 1). Add the DRG optimization activity to the list of Discharge Planning functions as this has become an integral part of the departments' responsibilities.
- 2). Change the percent of time spent on activities to actual hours worked in a week on the

specific activities. This was thought to reflect a more accurate accounting of time by the part time staff for the specific activities.

Questions VI, XII, and XIII utilized the Likert scale. These three questions on the survey were selected for the Likert scale so that the instrument could measure individual variability associated with each discharge planners/social workers personal educational and work experience. The survey was developed through review of the literature and previous surveys used across the industry. The discharge planning staff received a copy of the survey in their hospital mail boxes and a return post marked envelope was provided. The administrative assistant for the department collected the completed responses and mailed them to the researcher. An example survey is found in appendix B.

The discharge planning/social work department for the sample hospital had a total of 15 staff available to complete the survey. Eight of the surveys were completed and returned for a response rate of 53 percent. Seven registered nurses and one social worker completed the survey. It was reported that there were two social workers available, in total, for the survey.

information system for fiscal year 1994-1995. The top 10 high-volume DRGs were examined for home health care, rehabilitation, and skilled care as discharge destinations from the sample hospital.

Data Collection

The sample patient hospital data were obtained through hospital management. All Medicare discharges for 1994-1995 were analyzed for average LOS with the exclusions mentioned earlier. A discharge planning survey was sent to all discharge planning employees with the exception of clerical support employees. The survey questions

measured demographics, time spent on specific discharge planning tasks, education stressed with regard to the discharge planning tasks, and value placed on the discharge planning tasks. The individual research question results are described in the next chapter.

Data Analysis and Statistical Operations

Statistical operations were utilized in the following ways to analyze the hospital discharge data as well as the survey instrument results. H₁ used the three means to compare LOS and utilization trends over time, as well as compare changes in the number of patient days and qualitatively trend changes in LOS between the RAND study and the sample hospital for post-hospital users and nonusers. H₁ also used the sample hospital mean LOS and mean home health visits to trend changes in LOS and average home health visits over time with the RAND study. H₂ used percent utilization within the top 10 DRGs to compare post-hospital discharge destinations for the sample hospital. H2 in addition, compared means on age by the three post-hospital destinations (nursing home, rehabilitation, and home health care) for users and nonusers of post-hospital care to observe any propensity by age to utilize certain post hospital services. H2 was answered by use of a two-way chi square. H₃ was answered by summarizing respondents ratings for the following categories: How important was the following criteria in screening patients for post hospital care; type of insurance, doctors support in the discharge process, age of the patient, hospital length of stay, where the patient lives, gender of the patient, the patient lives alone, the patient has had previous hospitalizations, the medical diagnosis, and insurance benefits. Respondents were asked to estimate the average amount of time they spent in a week on specific discharge planning tasks, as well as rate the degree of

emphasis associated with the task during their collegiate preparation, and the relative importance they felt the task held in the function of discharge planning for the following areas; assessment, documentation, counseling, securing resources, optimizing DRG reimbursement and utilization management, quality care assessment and communication.

CHAPTER 4

Results of the Study

The purpose of this study was to trend changes in hospital lengths of stay and post-hospital use over time as well as measure time spent on specific discharge planning tasks, measure the value of those tasks and the perceived emphasis that was placed on those functions as part of the discharge planners curriculum. The sample hospital data was benchmarked against the RAND/UCLA empirical study performed on Medicare beneficiaries (medical/surgical discharges) for the years 1981and 1984-1985, commissioned by the Health Care Financing Administration (HCFA), U.S. Department of Health and Human Services. The RAND/UCLA study was published in March 1988 by the RAND/UCLA Center for Health Care Financing Policy Research. The analysis described in the RAND/UCLA study was conducted as part of the research program in support of the Health Care Financing Administration's efforts to prepare a congressionally mandated report on the impact of PPS on post-hospital care.

According to Neu and Harrison,

With the introduction of the Medicare prospective payment system in 1983, hospitals faced new incentives to discharge Medicare patients as rapidly as possible. The PPS also provided new encouragement for the use of post hospital care provided by Skilled Nursing Facilities (SNF's) and Home Health Agencies (HHAs). Hospitals could reduce lengths of stay in some cases by discharging patients to some form of post hospital care. It seems that post hospital care—and particularly SNF care—is becoming more routine, less "chronic" in nature. (Neu & Harrison, 1988, pp. v-vi)

The RAND/UCLA study of post-hospital care before and after PPS is considered premier research on the relation between use of post-hospital care and hospital length of stay (LOS) and on how the use of post-hospital care is encouraged under the current Medicare form of reimbursement. A description of the data utilized for RAND follows:

Part A services provided to a Medicare beneficiary during episodes of care that begin with a stay in an acute care has come principally from hospital billing records for 20 percent random samples of all Medicare beneficiaries discharged from short-stay, acute care hospitals during two 12-month periods: calendar year 1981 (shortly before institution of the PPS) and the 12 months ending June 1985 (roughly the first year of the fully implemented PPS). The resulting data bases contain information on all Medicare hospitals. Hospitals not operating under the PPS were excluded from the study. After making these exclusions, each of the samples included information on about 1.7 million Medicare hospital discharges and their subsequent hospital care. (Neu & Harrison, 1988, pp. v-vi)

Statistical data utilized from the RAND/UCLA study was used from non-waivered states only. Non-waivered states are those states that were not exempt from the DRG reimbursement system of payment.

Data Analysis

The data analysis has four components. The first component analyzes the sample hospital patient-level data to examine lengths of stay, patient discharge destinations, and demographic patient characteristics. The first component relates to H 1: There will be no difference in the average length of stay and post hospital use between the RAND studies of 1984, 1988 and the sample hospital 1994/95 data for medical surgical discharges. The second component describes the RAND/UCLA National Medicare Research findings on post-hospital care before and after introduction of the Medicare Prospective Payment System, or PPS (C. R. Neu and Scott C. Harrison, authors and principal investigators). The sample hospital data were trended with the RAND/UCLA data over time to describe observed changes in patient care management in relation to length of hospital stay and use of post-hospital services before and after implementation of PPS. The second component relates to H 2: There will be no difference in the propensity to use post hospital services by age and gender between the

will be no difference in the top 10 diagnoses for post hospital use (rehabilitation, skilled nursing facility, and home health care). The third segment of the study deals with the criteria discharge planners use to evaluate which patients may have a need for post hospital care, this segment relates to H₄: There will be no difference in how the discharge planners rate the criteria used for screening patients in need of post hospital care. The fourth component of the analysis examines the results of a survey instrument distributed to the discharge planners and social workers employed by the sample hospital; this instrument measured time spent on specific discharge planning/social work tasks, rated the level of emphasis on these tasks during the practitioners' collegiate education, and asked the staff to rate the tasks by importance in the function of discharge planning. This component relates directly to H₅: There will be no difference in time spent across discharge planning functions, no difference in the value placed on those functions, or the degree to which those functions were stressed as part of the discharge planners collegiate curriculum.

A total of 6,839 Medicare patient discharge records were submitted from the sample hospital. Of these hospital cases, 54 percent were female and 46 percent male. The discharge destination for the 6,839 Medicare patients is shown in Table 1.

The number of cases discharged to skilled nursing care was 561, or 8.2 percent of the hospital population; the number discharged to rehabilitation was 192, or 2.8 percent; and 1,276 cases, or 19 percent, were discharged to home health care. The sample hospital's home health agency received 58 percent of the total home health referrals. This investigation successfully linked 433 cases out of 713 discharged to the sample hospital home health agency. The mean visits per user were based on the 61 percent of the records

percent of the records successfully linked.

This investigation concentrates on post-hospital care, defined as home health care, skilled nursing care, and acute rehabilitation.

Table I determines the level of post hospital use for the sample hospital and begins to answer research H₁: There will be no difference in the average length of stay and post hospital use between the RAND studies of 1984,1988 and the sample hospital 1994/95 data for medical surgical discharges. Post hospital care has increased as measured by data from the sample hospital (post acute use totaled 30 percent).

Table 1

<u>Discharge Destinations for all Medical-Surgical Medicare Patients from the Sample Hospital</u>

Destination	Proportion of cases	Number of cases N=6,839
(Left against medical advice)	0.8%	58
Expired	4.2%	286
*Home health services	18.9%	1,289
Home-self care	56.7%	3,879
Intermediate Facility	1.0%	70
Other Facility	3.1%	211
Short-Term Hospital	4.3%	293
*Rehabilitation	2.8%	192
*Skilled Nursing Facility	8,2%	561
Total	100%	6839

Measuring Change in Patient Care Management

Table 2 completes the trending for H_I: There will be no difference in hospital average length of stay and post hospital use between the RAND studies of 1984, 1988, and the sample hospital 1994/95 data for medical surgical discharges. The investigation began with measurement of changes in the overall use of post-hospital care for which

hospital LOS reported in the RAND/UCLA study was 9.8 days in 1981; this mean fell to 7.8 days in 1984-1985. The sample hospital had a mean LOS of 6.8 days for all medical/surgical discharges in 1994-1995. The RAND/UCLA data showed the percentage of medical/surgical discharges using post-hospital care increasing from 11 percent in 1981 to 17 percent in 1984-1985. The sample hospital's figure increased to 30 percent for 1994-1995. The acute hospital LOS showed a decrease of 3 days from the 1981 pre-PPS mean to the 1994-1995 sample hospital mean. The proportion of post-hospital care users increased by 173 percent compared to the RAND/UCLA 1981 data (see Table 2). Table 2 completes the answer for the first research question, H₁: There will be no difference in the average length of stay for the RAND studies of 1984, 1988 and the sample hospital data of 1994/95. The data table demonstrates that the hospital length of stay has been reduced with a coexisting increase in the use of post-hospital care. The trend observed over time rejects the null hypotheses.

For the percentage of patients utilizing post-hospital care, there was an observed decrease in their mean hospital LOS. For patients discharged to home health care, the decrease was remarkable. The management of hospitalized patients has changed as a result of cost reduction initiatives, such as DRG's, which was supported in the previously cited literature. Patients discharged to home health in the RAND/UCLA study had a mean hospital LOS of 15.8 days in 1981 (pre-PPS) and 11.3 days in 1984-1985 (post-PPS); the mean hospital LOS for patients discharged to skilled nursing care was 21.2 days in 1981(pre-PPS); it fell to 14.1 days in 1984-1985 (post-PPS) and fell again for the sample hospital in 1994-1995 to 11.9 days. The overall decline in hospital LOS was 9.3 days from 1981 to 1994-1995 for the sample hospital (see Table

benchmark change in LOS for acute rehabilitation patients, because the RAND/UCLA study was unable to identify rehabilitation candidates during the pre-PPS period. The hospital mean LOS for those discharged to rehabilitation for the sample hospital was 7 days. Table 2 summarizes the results of H_1 , describing declining lengths of stay and increase use of post hospital care.

Table 2

Average Acute Hospital Length of Stay and Proportion of Patients Using Post-Hospital Care, 1981 to 1994-1995

Mean hospital LOS	Proportion of patients using post-hospital care
9.8 days	11%
7.8 days	17%
6.8 days	30%
-3.0 days	+173%
	hospital LOS 9.8 days 7.8 days 6.8 days

Acute Hospital Length of Stay for Patients Discharged to Home Health Care and Skilled Nursing Facilities

	Mean hospital LOS for home health care	Mean hospital LOS for skilled nursing facility discharges
Source and date	discharges	•
RAND/UCLA data, 1981 (pre-PPS)	15.8 days N=143,128	21.2 days N=41,739
RAND/UCLA data, 1984-1985 (post-PPS)	11.3 days N=225,442	14.1 days N=53,242
Sample hospital, 1994-1995	7.9 days N=433	11.9 days N=561
Change, 1981 to 1994-1995	-7.9 days	-9.3days

There was a decline of 7.9 days in the mean hospital LOS for home health users as well as a corresponding increase in the average number of visits of 10 per user, trended from the RAND data and sample hospital (see Table 4). Table 4 further answers H₁ in that patients who are discharged to home health care have experienced shorter hospital lengths of stay over time as well as an increase in home health visits. This may indicate a post hospital substitution for a portion of the acute hospital stay.

Table 4

Acute Hospital Length of Stay and Number of Home Health Visits for Patients Discharged to Home Health Care

Source and date	Mean hospital LOS for home health care discharges	Mean number of home health care visits
RAND/UCLA data, 1981 (pre-PPS) N=143,128	15.8 days	12.8
RAND/UCLA data, 1984-1985 (post-PPS) N=225,442	11.3 days	14.1
Sample hospital, 1994-1995 N=433	7.9 days	22.8
Change, 1981 to 1994-1995	-7.9 days	+10.0

Effects of age, gender and diagnosis on post-hospital utilization

Table 4 and Table 5 answer H 2: There will be no difference in the propensity to use post hospital services by age or gender between the RAND studies and the sample hospital data. The investigation examined the relationship of gender, age and diagnosis and the propensity to use or not use post-hospital services (home health care, rehabilitation and SNFs). The mean age of nonusers of post-hospital care increased from 72.8 years in 1981 to 73.5 years in 1984-1985; the RAND/UCLA researchers attributed the increase to greater use of post-hospital services by younger Medicare

The sample hospital showed a decline in the average age of nonusers for 1994-1995, to 71.7 years, possibly indicating a greater use of post-hospital services by older Medicare patients. The average age of all post-hospital care users increased during the course of the RAND/UCLA investigation. SNF users had an average age of 79.4 years in 1981, 79.7 years in 1984-1985, and, for the sample hospital in 1994-1995, 80.4 years. Home health users in the RAND/UCLA investigation had an increase in average age from 75.9 years in 1981 to 76.1 years in 1984-1985; the sample hospital showed a slightly lower average age, 75.6 years, in 1994-1995. The mean age of the acute rehabilitation user was 75.9 years for the sample hospital. H₂ is rejected on a trending bases from the RAND study and sample hospital data which examined age and gender and their propensity to use post hospital care by discharge destination.

The use of certain post-hospital services is related to average age across the groups. For all three years examined, the average age of nonusers was comparatively less than that of home health or SNF users. The sample hospital showed an average age for nonusers of 71.7 years, while the home health users had an average age of 75.6 years, and SNF users had an average age of 80.4 years. These results support the generalization that older patients are more likely than younger patients to use SNF care, but that the effect of age may be blurred when examined across specific DRGs. The average age of acute rehabilitation users from the sample hospital for 1994-1995 was 75.9 years. Data were not available from the RAND/UCLA investigation for the average age of rehabilitation users. (See Table 5 for average ages of home health and SNF users and nonusers.) Table 5 answers research H₂ as to whether Medicare patients have a greater propensity to utilize post-hospital services as a result of age.

Table 5

Age of Users and Nonusers of Post-Hospital Care

Source and date	Mean age of nonusers of post-hospital care	Mean age of users of skilled nursing facilities	Mean age of users of home health care	Mean age of users of rehabilitation
RAND/UCLA data, 1981 (pre- PPS) N=1.7M	72.8 years	79.4 years	75.9 years	No data*
RAND/UCLA data, 1984-1985 (post-PPS) N=1.7M	73.5 years	79.7 years	76.1 years	No data
Sample hospital, 1994-1995 N=6,839	71.7 years	80.4 years	75.6 years	75.9 years
Change, 1981 to 1994-1995	-1.5 years	+1.0 years	-0.3 years	Insufficient data

Data not available from the RAND/UCLA study.

Examination of the use of post-hospital services by patient gender also showed an interesting pattern as illustrated in Table 6. The proportions of female acute discharges using SNFs and home health care increased over time for both the RAND/UCLA study and the sample hospital. In 1981, 3.1 percent of the female acute discharges utilized SNF care; in 1984-1985 the proportion had increased to 3.8 percent, and for the sample hospital in 1994-1995, it had increased to 5.7 percent (see Table 6). Similar, though less significant, increases were seen for male patient acute discharges. The proportion of male acute discharges using SNF care in 1981 was 1.8 percent, increasing to 2.3 percent in

1984-1985; for the sample hospital in 1994-1995, the proportion was still higher, 2.5 percent. For use of home health care, the proportion of female patient acute discharges increased as well, from 9.8 percent in 1981 to 15.2 percent in 1984-1985; for the sample hospital in 1994-1995, it was 11.1 percent. The proportion of males who used home health care was 7 percent in 1981 and increased to 11.1 percent in 1984-1985; by contrast, the sample hospital had 7.8 percent of its males discharged to home health in 1994-1995. The average number of home health visits for the sample hospital was greater for females (25 visits per user) than for males (21 visits per user). Table 6 answers H₂ as to whether Medicare patients utilizing post-hospital services have a greater propensity to do so as a result of gender.

Table 6

Proportions of Female and Male Discharged Patients Using Specific Post-Hospital Services

	Post-hospital service					
	Skilled nursing facilities		Home health care		Rehabilitation	
Source and date	Female	Male	Female	Male	Female	Male
RAND/UCLA data, 1981 (pre-PPS)** N=184,867	3.1%	1.8%	9.8%	7.0%	No data*	No data*
RAND/UCLA data, 1984-1985 (post- PPS)** N=284,026	3.8%	2.3%	15.2%	11.1%	No data*	No data*
Sample hospital, 1994-1995** N=994	5.7%	2.5%	11.1%	7.8%	1.8%	1.0%

^{*}Data not available from the RAND/UCLA study.

** Percentages reflect the proportion of total males and females discharged from the acute hospital.

Table 7 illustrates, for the sample hospital in 1994-1995, the 10 leading DRGs (to which patients are assigned during their hospitalization) among patients discharged to home health, SNF care, and acute rehabilitation. This table answers H₃: There will be no difference in the top 10 diagnoses for post hospital use across post hospital destinations (rehabilitation, skilled nursing facility, and home health care). As can be seen, very few DRGs account for a large proportion of the discharges within each discharge site. The top 10 DRGs among discharges to SNFs, for example, account for 43 percent of those discharges. The corresponding top-10-DRG-share figures are 40 percent for home health care and 63 percent for acute rehabilitation. Also remarkable is the degree to which the same DRGs are represented for all three post-hospital services. SNF care and acute rehabilitation share seven of the 10 top DRGs; home health shares five of the top 10 DRGs with SNFs. The leading DRGs can be important in predicting which groups of patients will have a greater propensity to use posthospital care. Table 7 examines which diagnoses have a greater propensity to use posthospitals services for the sample hospital.

Table 7

<u>Top 10 Diagnostic Related Groups (DRGs) for Discharge to Home Health, Skilled Nursing Facilities, and Acute Rehabilitation</u>

DRG number and description	N=433 Proportion of discharges to home health care	N=561 Proportion of discharges to skilled nursing facilities	N=192 Proportion of discharges to acute rehabilitation
5: Extracranial vascular procedures	2.5%	0.0%	3.1%
14: Specific cerebrovascular disorders except transient ischemic attack	0.0%	7.5%	15.6%
15: Transient ischemic attack	2.4%	2.5%	0.0%
88: Chronic obstructive disease	5.9%	0.0%	0.0%
89: Simple pneumonia and pleurisy, age >17 years	2.4%	0.0%	0.0%

Total	39.6%	42,6%	63.0%
478: Other vascular procedures with complications	2.0%	0.0%	0.0%
416: Septicemia, age >17 years	3.1%	7.0%	0.0%
320: Kidney and urinary tract infections	0.0%	2.5%	1.6%
disorders, age >17 years, with complications			
connective tissue malignancy 236: Nutritional and miscellaneous metabolic	3.1%	3.9%	1.6%
239: Pathological fractures and muscular and	0.0%	2.3%	1.6%
236: Fractures of hip and pelvis	0.0%	2.1%	1.6%
210: Hip and femur procedures except major joint	0.0%	3.6%	8.3%
	4.9%	3.4%	23.4%
209: Major joint and limb reattachment procedures			
with complications			
138: Cardiac arrhythmia and conduction disorders	0.0%	0.0%	2.1%
132: Atherosclerosis with complications	3.1%	0.0%	0.0%
127: Heart failure and shock	10.3%	7.8%	2.6%
113: Amputation for circulatory system disorders except upper limb	0.0%	0.0%	3.1%

Survey Results

The respondents rated the importance of criteria for screening patients for post-hospital services in table 9 which answers H₅: There will be no difference in how the discharge planners rate criteria used for screening patients in need of post hospital care. All respondents rated the following criteria as moderately to very important: type of insurance, whether the patient lived alone, whether the patient had previous hospitalizations, and insurance benefits. Seven respondents out of eight rated the following criteria as moderately to very important: doctor support in the discharge process, age of the patient, hospital LOS, and medical diagnosis. Half of the respondents rated where the patient lived as moderately to very important; only one of the eight rated the gender of the patient as moderately to very important. (See Table 9.)

Table 9 examines the characteristics associated with patients who need post-hospital care. This table compares the discharge planners perception of what characteristics are important as compared to which characteristics were found to be important from the patient level data.

Table 8

Rating by Discharge Planners/Social Workers of Criteria for Screening Patients for Post-Hospital Care

Criterion	Number of discharge planners/social workers rating the criterion as "moderately to very important" N=8
Type of insurance	8
Doctors' support in the discharge process	7
Age of patient	7
Hospital length of stay	7
Where patient lives	4
Gender of patient	1
Whether patient lives alone	8
Whether patient has had previous hospitalizations	8
Medical diagnosis	7
Insurance benefits	8

Eight of the surveys were returned, for a response rate of 53 percent. Seven registered nurses and one social worker completed the surveys. Of these eight, six held bachelors' degrees, two were pursuing bachelors' degrees, two had masters' degrees, and one was pursuing a master's degree. College graduation years ranged from 1972 through 1993; two respondents graduated before 1983 and six after 1987. Thus, some

respondents received an undergraduate education before the introduction of PPS and some after. The mean number of years of experience in discharge planning was 2.5 years; length of experience ranged from half a year to 6 years. The last table summarizes the results of H₅: There will be no difference in time spent across discharge planning activities, value placed on those activities, or the degree to which those activities were stressed as part of the discharge planners collegiate curriculum. The results of the survey reveal that there is no difference in the value placed on discharge planning activities, with the exception of documentation, as rated by the respondents. One hundred percent of the discharge planners felt all of the activities except documentation were moderately to highly important. Eighty-eight percent of the respondents felt documentation was moderate to highly important. While there was little difference in the rating of importance of discharge planning activities, the survey results did identify a variance in time spent on those same activities. The mean proportion of time spent in a work week on specific activities varied from 6 percent to 25 percent.

The percent of respondents rating the activities as stressed to highly stressed as part of their curriculum ranged from 25 to 100 percent. The activities stressed the least during their curriculum is now where the planners spend 66 percent of their time. Table 8 describes the average amount of time spent on discharge planning activities (as rated by the respondents) for seven tasks. As table 8 illustrates, the top four time consuming tasks were communication, optimizing DRG reimbursement, assessment, and counseling; documentation, securing hard resources, and quality care assessment ranked lower.

Securing resources reportedly took nearly as much time as counseling. For all categories but one (documentation), all respondents reported that the listed activities were

moderately to highly important to the function of discharge planning, despite significant variation in the amount of time devoted to each task.

Table 8 also shows what areas the respondents reported as having been stressed during their collegiate education. All reported that assessment was moderately to highly stressed, and nearly all reported some stress on documentation and counseling. Although, as was noted earlier, discharge planners/social workers reported spending 23 percent of their time optimizing DRG reimbursement (the second-highest amount of time spent on any one task), only 25 percent of the respondents reported that this activity had been stressed during their collegiate preparation, even though DRGs were fully implemented by 1987. On the average, during a usual work week, 47 percent of the discharge planners/social workers time was spent on assessment, documentation, and counseling. For 88-100 percent of the respondents, these activities were stressed to highly stressed during their collegiate preparation. The remainder of their time, on the average, 61 percent was spent on securing resources, optimizing DRG reimbursement/utilization management, quality care assessment and communication. These activities were stressed to highly stressed for 25-63 percent of the respondents. Table 8 answers H₅ regarding discharge planners time spent on discharge planning tasks, to what degree those tasks were stressed during their collegiate education and what value discharge planners place on those tasks and whether there is congruity among those three variables.

Table 9

Principal Activities of Discharge Planners/Social Workers: Time Spent, Stress in College Education, and Value by Practitioners N=8

· Activity	Mean proportion of work time reported by planners as spent	Proportion of planners reporting given level of stress on activity in	Proportion of planners rating activity as "moderately to highly
· · · · · · · · · · · · · · · · · · ·	on activity	collegiate education	important"

A.	Assessment	22%	Stressed to highly	100%
			stressed, 100%	
B.	Documentation	12%	Stressed to highly	88 %
			stressed, 88%	
C.	Counseling	13%	Stressed to highly	100%
	•		stressed, 88%	
D.	Securing resources	12%	Stressed to highly	100%
			stressed, 25%	10070
-	O-Ministra DDC	20.00	• -	
E.	Optimizing DRG	23%	Stressed to highly	1 00 %
	reimbursement /		stressed, 25%	
	utilization management		·	
F.	Quality care assessment	12%	Stressed to highly	100%
	•		stressed, 63%	22.22
G.	Communicating	13%	· · · · · · · · · · · · · · · · · · ·	1 00 %
J.	Communicating	1376	Stressed to highly	10076
			stressed, 63%	

Summary

H₁: There will be no difference in the hospital average length of stay and post hospital use between the RAND studies of 1984/85, 1988 and the sample hospital 1994/95 data for medical surgical discharges. Tables 1-4 illustrate the changes that have taken place in the management of Medicare patients after the PPS reimbursement method was introduced. Shorter hospital lengths of stay for post-hospital users and non-users with coexisting increases in use of post hospital care are apparent.

H₂: There will be no difference in the propensity to use post hospital services by age or gender between the RAND studies and sample hospital data, and H₃: There will be no difference in the top 10 diagnoses for post hospital use (rehabilitation, skilled mursing facility and home health care). Tables 5-7 examine age, gender and diagnosis as factors effecting the propensity to use post-hospital care. Average age varies according to discharge destination, the older patients utilizing skilled nursing facilities and younger beneficiaries utilizing home health. Females continue over time to use more post hospital services than males. Diagnoses were similar but not identical for all three post hospital services (rehabilitation, skilled nursing facility, and home health).

Table 8 portrays the discharge planners rating of screening criteria to answer

H₄: There will be no difference in how the discharge planners rate criteria used to screen patients in need of post hospital care. The discharge planners did not rate gender as an important criteria. But the data analysis indicates that females utilize post hospital services to a greater extent than do males.

H₅: There will be no statistical difference between time spent on discharge planning activities, value placed on those activities, or the degree to which those activities were stressed as part of the discharge planners collegiate curriculum. Table 9 examines the survey responses in relationship to the value placed on discharge planning activities (which the planners felt were all important with the exception of documentation) and time spent on those activities (which varied dramatically even though all activities but one were viewed as important). The surveys reveal that a curriculum issue is surfacing as the respondents indicate the areas where they spend majority of their time were stressed the least during their collegiate education.

In summary, hospitalized Medicare patients are being managed with shorter hospital lengths of stay and increase post hospital use post implementation of the Prospective Payment System form of reimbursement. The change in reimbursement has reordered the discharge planners/social workers activities. The discharge planners/social workers are spending more time on securing post hospital services, optimizing DRG reimbursement and communication. These changes in role expectation will require changes in how these professionals are educated.

CHAPTER 5

CONCLUSIONS

The conclusions drawn from this study are described in three parts. The first phase suggests changes in the management of patients over time as a result of how hospitals are reimbursed. The second and third phase suggest that there are patient characteristics that result in a greater propensity to use post hospital care and finally concludes that changes need to occur in the curriculum for discharge planners as a result of how hospitals are operating in the current reimbursement and cost containment environment.

Clearly, the American people must determine what type of system they wish to put in place to continue to reduce health care costs. Many initiatives are occurring without public debate or medical input. Until this issue is resolved at the federal level, the social worker and registered nurse discharge planners will continue to respond to those hospital administrative initiatives which keep their institutions in acceptable financial standing. Under the current DRG and managed care system that means meeting prescribed lengths of stay and continuing to discharge patients earlier during their hospital stay.

The analyses developed for this investigation attempted to trend changes in patterns of care from the pre-PPS period through 1994-1995 for the sample hospital. Within this study, the available evidence is more suggestive than conclusive in measuring trends in patient care management. However, some patterns observed occur repeatedly and are reinforced by the findings in the RAND/UCLA data analysis. The sample hospital did follow the RAND/UCLA trends to a much greater extent. That may be due to the lag time between the published results of the RAND/UCLA study and the timing of this investigation some years later. Those findings are summarized in this chapter.

Implications

The sample hospital is following trends identified in the RAND/UCLA study. Changes have occurred in hospital lengths of stay and post-hospital use since the implementation of the PPS form of reimbursement for hospitals. Short-term acute hospital lengths of stay have become shorter, and the use of post-hospital services has increased. Skilled nursing facility (SNF) users for the RAND/UCLA and sample hospital were "sicker" than nonusers of those services, in that they experienced significantly longer lengths of hospital stay. This observation held for home health care users as well. Average short-term acute hospital lengths of stay have declined more significantly for SNF and home health care users than for nonusers. This observation supports the notion that hospitals are moving toward earlier discharging of patients into post-hospital services. Medicare patients in particular are being discharged from short-term acute hospitals "quicker." We have noted that hospital lengths of stay for patients using SNF care decline dramatically when the overall use of SNF care increases. According to Steiner (1993), a 10 percent drop in length of stay was associated with a 6.4 percent increase in the proportion of SNF admissions that were Medicare reimbursed. This condition may indicate a substitution effect for the last few days of the acute hospital stay. In 1981, SNF users from the RAND/UCLA study showed lengths of stay 2.2 times as long as those of nonusers. By 1984-1985, the ratio had declined to 1.9. Patients at the sample hospital who used skilled care had lengths of stay twice as long as those of nonusers.

Corresponding to the decline in hospital length of stay for home health discharges was an observed increase in the average number of home health visits per user for the sample hospital and the RAND/UCLA data as well. As with SNF use, this pattern

suggests a substitution effect, with the increase in home health visits per user possibly substituting for the last few days of the hospital stay.

The average age of SNF users rose slightly for both the RAND/UCLA analysis and the sample hospital, though somewhat less than the average age of nonusers. This result may indicate that younger Medicare patients from the RAND/UCLA study showed a greater increase in propensity to use SNF care and older Medicare patients utilized SNF care more from the sample hospital; it would also be consistent with the hospitals' incentive under PPS to discharge Medicare patients (regardless of age) to post-hospital settings sooner, providing skilled beds are available. Furthermore, this result would reflect a change in the use of SNFs for more routine care and less chronic care. However there has been wide variance in the utilization of skilled beds observed across states. This may be due to availability and if skilled beds are in short supply, the sample hospital may be using them for the more long term aged patients.

The proportion of females using SNF and home health care increased over time for both the RAND/UCLA study and the sample hospital. Not only has the utilization increased, but female use rates are higher than males overall.

The top 10 DRGs representing the highest post-hospital care utilization are similar for all three post-hospital sites (home health, SNF, and rehabilitation). Severity of illness, which was not measured in either the RAND/UCLA or sample hospital study, would appear to be the predictor of which post-hospital service the patient will use within those top 10 DRGs. Severity of illness being the measure that determines the level of professional surveillance required by the patient. The discharge planning/social work staff that facilitate post-hospital care for the acute hospital patients were represented by a

higher complement of registered nurses (for the sample hospital survey) than the literature would indicate is the norm. According to Kadushin and Kulys, "discharge planning in hospitals is still performed primarily by social workers despite the growing tendency of others to assume this responsibility" (Kadushin and Kulys, 1993, p.713). The sample hospital has two social workers out of 15 staff members available to the medical/surgical population. If discharge planners/social workers are spending more time on triaging patients to post-hospital settings, then it would follow that more frequent assessment with the clinical staff and earlier patient discharges are the plan of business, in order to optimize DRG reimbursement. This conclusion is consistent with the respondents' estimate of the average amount of time spent on DRG optimization/utilization management. Respondents rated this activity highest, at 23 percent of time spent, indicating a significant degree of effort and success in moving patients to post-hospital settings and decreasing lengths of stay (and thereby improving reimbursement for the hospital). Counseling, which is a cornerstone of professional social work, had lower estimates for time allowed. This lack may account for the decreased number of social workers represented in the survey and the department overall. The discharge planners / social workers rated all activities as moderately to highly important, with the exception of documentation. However, the average amount of time estimated as spent on specific kinds of tasks varied greatly, from an average of 12 percent to 23 percent of time expended across tasks. While all tasks were rated as important there is still a prioritization assigned in terms of time spent on those tasks. All of the respondents had training in the previous five years in utilization review; all respondents but one had training in pathway or case management; seven out of eight had no training in rehabilitation or SNF reimbursement; two out of eight had training

in home health reimbursement. While the staff may not have had reimbursement training in all post-hospital services, they still were successful in managing DRGs and reducing hospital lengths of stay.

One of the tasks requiring the most amount of respondents' time—optimizing DRGs/utilization management, at 23 percent of time—was one of the activities stressed the least during the respondents' collegiate preparation. A secondary activity, not greatly stressed during the respondents' collegiate education, was securing resources for post-hospital care. This activity could be regarded as an output of optimizing DRGs (preparing the patient for discharge). It should be noted that the sample hospital provided an extensive training course on DRG optimization (improving reimbursement) and utilization management for the discharge planning/social work department. All but one of the respondents answered in the affirmative when asked if they had any training or education in DRG reimbursement in the last five years. This educational effort coupled with an administration that encourages the management of patients within their respective Medicare budgets contributes to the successful reduction in hospital lengths of stay.

The survey respondents estimated the leastamount of their time was spent on the quality assessment of post-hospital services and documentation. Given the changes in patterns of patient care management (especially increased use of post-hospital care and declining lengths of hospital stays), one would expect that an ongoing measure of the quality and effectiveness of post-hospital services to be an urgent priority as well as the documentation of how these events occur. One source of measurement of quality of post-hospital services would be the readmission rate to the hospital following discharge to the post-hospital setting, as well as mortality rates in the post hospital settings.

Study Recommendations

There are indications that the curriculum for preparing discharge planners and social workers needs to be reviewed and revamped to better serve learner needs. Health care funding has been declared a national priority, and reimbursement methods will surely change, with a significant resulting impact on the professional practice of the respondents as well as patient outcomes. The results of the survey suggest that the professional curriculum will need to examine the impact reimbursement has on the function and philosophy of discharge planners/social workers in their health care role, just as many other health care professionals and educators must be aware of how health care funding drives the design of their professional function. Otherwise, learning not only how to function within the system (professional knowledge), but how the system functions across settings. Academic/University Centers must take initial responsibility in laying the educational foundation. Certainly, hospital providers will be responsible for ongoing updates on reimbursement and benefit changes and how that effects hospital operations. As new reimbursement rules are promulgated, particularly as they relate to state and federal programs, the education departments of hospitals will need to take a more aggressive role in disseminating information. According to Brobst, Gunzburger, Schwartz, Tresbolini and Jay (1995), there are two types of knowledge in health care today, "professional" and "improvement" knowledge. " Professional knowledge constitutes subject matter knowledge or discipline specific knowledge that is traditionally taught in health profession education. Improvement knowledge comprises knowledge of the system, of variation, or the psychology of work and change and theory of knowledge" (p. 711). It would seem necessary for professionals to gain improvement knowledge in

between professional and improvement knowledge is to link education with practice (Brobst, Gunzburger, Schwartz, Tresbolini, Jay 1995 p. 715). The educational domains that need new emphasis are reimbursement, securing resources for post-hospital care, and quality assessment of post-hospital settings. Regardless of the type of future reimbursement methods, all three of these areas clearly need to remain priority educational issues for registered nurses and social workers. Academic centers must begin to seriously examine the rapid changes that are occurring in the professional practice of social work and nursing. The ultimate output of an ideal curriculum is that it will match the educational service and professional needs of the learner.

Significance of the Study

The significance of the study is in its ability to demonstrate the changes in patient care management as a result of how hospitals are reimbursed and how that has affected the way discharge planners (registered nurses and social workers) are spending their time with patients. This has significance for both the discharge planners and the academicians that develop their curriculum. The research has revealed that these professionals are spending a significant amount of time (23 percent) on assisting the institution in maintaining profitability. Yet, this area was not stressed as significantly during their educational preparation (stressed to highly stressed for 25 percent of the respondents) as other activities, such as assessment (stressed to highly stressed for 100 percent of the respondents). The responses of the discharge planners supported the patient level data which exposed the declining lengths of stay after the implementation of the PPS form of reimbursement. Hospitals are incentivized to discharge patients sooner (an overall decline

in average length of stay of 3 days) with no loss of revenue. However, with the PPS form of reimbursement, hospitals could be subject to severe financial disincentives if they do keep patients longer than prescribed by the diagnosis related group. The source of health care funding must become a fundamental understanding as an aspect of the core curriculum. Ongoing efforts at the academic level must be initiated to produce the skills and understanding necessary for staff to function effectively in the discharge planning/case management role. The continued significance of the study are two-fold. First, learner needs must be met so that practitioners are prepared to function within the reimbursement environment. Curriculum design must meet the needs of the new evolving role of discharge planning. Secondly, the preparation of practitioners must meet the needs of the providers employing their services. If health care providers feel practitioners are ill prepared to carry out their functions, then several outcomes may occur. Hospitals will higher fewer social workers and registered nurses for this role, or, a hospital can opt to provide an in-house curriculum that adequately prepares professionals for this function. The latter is less desirable on the part of providers due to the added expense of extending the training/education period. Some of the changes suggested for curriculum development would be more instruction on health care funding, benefit structures, reimbursement, case management models that managing patients across a continuum of services, monitor resource use and clinical outcomes.

Recommendations for Further Research

The limitations of the study actually generate recommendations for further study.

The number of respondents to the survey was low in total numbers. Expanding this phase of the research to a larger group could enlighten us in two ways. First, it would increase

the validity of the study time spent on discharge planning activities, and to what degree these activities were stressed during their collegiate education. Secondly, it may clarify whether the number of social workers performing discharge planning tasks is on the decline across the industry. The sample hospital may be unique in its representation of social work as a discipline performing this function (only two represented in a department of fifteen). It may also indicate that the social work curriculum has not kept up with the expectations the hospital has in performing this function. Hospital operations are changing as a result of changes in reimbursement. Further work in the area of predicting which patients will require the use of post-hospital services will be very important. Timely movement of patients into these services will be crucial in a managed care future. Efforts to reduce health care costs will only continue to tax hospital providers. Hospitals must continue to create strategies that will maintain financial viability.

It will be challenging for the academic environment to keep pace with the rapidly changing health care environment. Discharge planning departments are utilizing both social workers and registered nurses in this role, and both curriculums must incorporate the reality of practice into their respective curriculum designs.

A larger sample of hospital discharges (from multiple hospitals) and an increase in the number of corresponding discharge planning survey respondents may reveal a wider variance in discharge planning practice (hospital length of stay and post hospital use) as well as educational preparation of the staff across hospitals. A correlation could be made between the time spent on specific discharge planning activities and the financial viability of the study hospitals.

Another area of interest for further study would be to examine the quality of care and clinical outcomes of patients utilizing post hospital care for the total episode of illness. Shorter lengths of stay in the hospital with corresponding increase utilization of post hospital services should be examined for efficacy in terms of costs and outcome. Patients are being discharged from hospitals sooner and into post hospital services. Are post hospital services able to achieve similar clinical outcomes to those achieved prior to the implementation of PPS and how has the professional staff and patients reacted to this change in management? When one is well and not utilizing the health care system it may seem logical that shorter stays in the hospital are the right approach. When one is experiencing an illness, utilizing the system may look quite different. Attitudes will need to change in terms of the patients' expectation that a total acute episode will be managed in the hospital setting. It appears that only a short segment of the episode will be in the hospital and the rest will be with home health care, rehabilitation and/or skilled care. Professionals managing the episode will need to change their expectations as well. Curriculum development in this area will be necessary for new clinicians entering the health care system. One approach to educating existing practitioners would be to offer a standardized curriculum that would prepare the professionals for a university based certification exam. Part of this education would be to begin to prepare existing staff currently working within the system to change their attitudes and expectations to better function in the current proprietary oriented climate.

This is an opportune time for academicians to demonstrate the value of curriculum design as having a direct contribution to the survival of the discharge planning profession and subsequently the hospitals as well.

Appendix A

Sample DRG Table Illustrates Reimbursement by Case

	EFFECTIVE 10/1/85		
		DRG	PAYMENT
DRG #	DISCRIPTION	WEIGHT	W/O CAP
_			3677.78
	CRANIOTOMY AGE > 17 EXCEPT FOR TRAUMA	3.0932	\$11.376
	CRANIOTOMY FOR TRAUMA AGE /17	3.0095	,
_	CRANIOTOMY AGE 0-17	1.8848	6.932
	SPINAL PROCEDURES	2.3296	8,568
	EXTRACRANIAL VASCULAR PROCEDURES	1.5798	5,810
	CARPAL TUNNEL RELEASE	0.8124	2,988
7	PERIPH & CRANIAL NERVE & OTHER NERV. SYST PROC WITH CC	2.6017	9,568
8	PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W/O CC	1.1794	4,338
9	SPINAL DISORDERS & INJURIES	1.3047	4,798
10	NERVOUS SYSTEM NEOPLASNS WITH CC	1.2299	4,523
11	NERVOUS SYSTEM NEOPLANSMS W/O CC	0.8000	2,942
12	DEGENERATIVE NERVOUS SYSTEM DISORDERS	0.9891	3,638
13	MULTIPLE SCLEROSIS AND CEREBELLAR ATAXIA	0.7858	2,890
14	SPECIFIC CEREBROVASCULAR DISORDERS EXCEPT TIA	1.2065	4.437
15	TRANSIENT ISCHEMIC ATTACH & PRECEREBRAL OCCLUSIONS	0.7227	2.658
16	NONSPECIFEC CEREBROVASCULAR DISORDERS W CC	1.0639	3,913
17	NONSPECIFIC CEREBROVASCULAR DISORDERS W/O CC	0.6026	2,216
18	CRANIAL & PERIPHERAL NERVE DISORDERS WITH CC	0.9242	3.399
19	CRANIAL & PERIPHERAL NERVE DISORDERS WO CC	0.5990	2.203
20	NERVOUS SYSTEM INFECTION EXCEPT VIRAL MENINGITIS	2.1157	7,781
21	VIRAL MENINGITIS	1.5350	5,645
	HYPERTENSIVE ENCEPHALOPATHY	0.8127	2,989
23	NONTRAUMATIC STUPOR AND COMA	0.8090	
24	SEIZURE AND HEADACHE AGE >17 W CC	0.9908	2.975
25	SEIZURE AND HEADACHE AGE >17 WO CC		3,644
26	SEIZURE AND HEADHEADACHE AGE 0-17	0.5681	2,089
20	TRAUMATIC STUPOR AND COMA >1 HR	0.5993	3,307
		1.3476	4,956
20	TRAUMATIC STUPOR AND COMA. < 1 HR AGE >17 WITH CC	1.2001	4,414
20 -	TRAUMATIC STUPOR AND COMA < 1 HR >17 W.O CC	0.6217	2,286
30	TRAUMATIC STUPOR AND COMA <1 HR AGE 0-17 CONCUSSION AGE >17 WITH CC	0.3187	1,172
31 (CONCUSSION AGE >17 WITH CC	0.7934	2,918
32 (CONCUSSION AGE >17 W/O CC	0.4819	1,772
	CONCUSSION AGE 0-17	0.2003	737
34 (OTHER DISORDERS OF NERVOUS SYSTEM WITH CC	1.0569	3,887
35 (OTHER DISORDERS OF NERVOUS SYSTEM W/O CC	0.5914	2,175
30 1	RETINAL PROCEDURES	0.5930	2,181
37 (ORBITAL PROCEDURES	0.8821	3,244
38 1	PRIMARY ISRIS PROCEDURES	0.4243	1,560
39 (LENS PROCEDURES W OR WIO VITRECTOMY	0.5036	1,852
40 L	EXTRAOCULAR PROCEDURES EXCEPT ORBIT AGE >17	0.7000	2.574
41 (EXTRAOCULAR PROCEDURES EXCEPT ORBIT AGE 0-17	0.3244	1,193
42 1	NTRAOCULAR PROCEDURES EXCEPT RETINA, IRIS AND LENS	0.5615	2,065
43 i	HYPHEMA	0.3665	1,348
	ACUTE MAJOR EYE INFECTIONS	0.6150	2,262
45 1	NEUROLOGICAL EYE DISORDERS	0.6460	2,376
46 (OTHER DISORDERS OF THE EYE AGE >17 W CC	0.7593	2,793
47 (OTHER DISORDER OF THE EYE AGE >17 W/O CC	0.4539	1.669
48 (OTHER DISORDERS OF THE EYE AGE 0-17	0.2859	1,051
49 N	MAJOR HEAD AND NECK PROCEDURES	1.7701	6.510
50 8	SIALOADENECTOMY	0.7522	2,766
51 3	SALIVARY GLAND PROCEDURES EXCEPT SIAL DADENIECTOMY	0.7325	2.694
52 0	CLEFT LIP AND PALATE REPAIR	0.7323	
53 S	SINUS AND MASTOID PROCEDURES AGE > 17	0.9392	3.123 3.454
		V.3332	J,93 9

	CI COTTAC IGUES	DRG	PAYMENT
DRG #	DISCRIPTION	WEIGHT	WO CAP
		WEIGHT	3677.78
9	4 SINUS AND MASTOID PROCEDURES AGE 0-17	0.4634	1,704
	5 MISCELLANEOUS EAR NOSE AND THROAT PROCEDURES	0.7238	2.662
	6 RHIOPLASTY	0.8195	
5	7 T&A PROC. EXCEPT TAND A ONLY, AGE >17	1.0450	3.843
5	B TAND A PROC EXPEPT TAND A ONLY, AGE 0-17	0.2631	988
5	TONSILLECTOMY AND OR ADENOIDECTOMY ONLY, AGE > 17	0.5963	
6	TONSILLECTOMY AND OR ADENOIDECTOMY ONLY AGE 0-17	0.2004	
6	1 MYRINGOTOMY W TUBE INSERTION AGE >17	1.2221	
6.	MYRINGOTOMY W TUBE INSERTION AGE 0-17	0.2837	1.043
6	OTHER E.N. AND TO.R. PROCEDURES	1.1462	4.215
_	DYSEQUILIBRIUM	1.1867	4.372
	S EPISTAXIS	0.5162	1.896
	EPIGLOTTITIS	0.5306	
	EPIGLOTTITIS	0.8060	2.964
61	OTITIS MEDIA AND URI AGE .17 W CC	0.7094	2,609
61	OTITIS MEDIA AND URI AGE >17 W/O CC	0.5270	1,938
	OTITIS MEDIA KAND URI AGE 0 -17	0.3129	1,151
	LARYNGOTRACHEITIS	0.7206	
	NASAL TRAUMA AND DEFORMITY	0.6419	2.361
73	OTHER EAR. NOSE AND THROAT DIAGNOSES >17	0.7730	2.843
74	OTHER EAR NOSE AND THROAT DIAGNOSES ANG 0-17	0.3223	1.185
75	MAJOR CHEST PROCEDURES	3.1034	11,414
76	OTHER RESP SYSTEM O. R. PROCEDURES W CC	2.5601	9.415
77	OTHER RESP SYSTEM O. R. PROCEDURES WO CC	1.1219	4.126
78	PULMONARY EMBOLISM	1.4136	5,199
: 79	RESPIRATORY INFECTION AND INFLAMMATIONS AGE >17 W CC	1.6625	6,114
80	RESPIRATORY INFECTIONS AND INFLAMMATIONS AGE >17 WIG	0.9508	3.497
81	RESPIRATORY INFECTIONS AND INFLAMMATIONS AGE DO-17	0.9558	3.515
82	RESPIRATORY NEOPLASMS	1.3166	
83	MAJOR CHEST TRAUMA WITH CCF	0.9557	3.515
84	MAJOR CHEST TRAUMA W/O CC	0.5002	1.840
85	PLEURAL EFFUSION WITH CC	1.1917	
两	PLEURAL EFFUSION WIO CC	0.6848	2.519
87	PULMONARY EDEMA AND RESPIRATORY FAILURE	1.3589	
75	CHRONIC OBSTRUCTIVE DISEASE	1.0018	3.684
	SIMPLE PNEUMONIA AND PLEURISY AGE > 17 WITH CC	1,1211	4.123
90	SIMPLE PNEUMONIA AND PLEURISY AGE >17 WO CC	0.6996	2.573
91	SIMPLE PNEUMONIA AND PLEURISY AGE 0-17	0.8366	3.077
82	INTERSTITIAL LUNG DISEASE WITH CC	1.2000	
93	INTERSTITIAL LUNG DISEASE WIO CC	0.7550	2.777
94	PNEUMOTHORAX WITH CC	1.2378	4,552
35	PNEUMOTHORAX W/O CC	0.6242	2.296
	BRONCHITIS AND ASTHMA AGE >17 WITH CC	0.8390	3.086
97	BRONCHITIS AND ASTHMA AGE 0-17	0.6069	2.239
96	BRONCHITIS AND ASTHMA AGE 0-17	0.6696	2,463
70	RESPIRATORY SIGNS AND SYMPTONS WITH CC	0.6959	2.559
100	RESPIRATORY SIGNS AND SYMPTOMS WIO CC	0.5034	1.851
101	OTHER RESPIRATORY SYSTEM DIGNOSES WITH CC	0.9120	3.354
102	OTHER RESPIRATORY SYSTEM DIAGNOSES WIO CC	0.5595	2.058
103	HEART TRANSPLANT	13.8273	50.854
104	CARDIAC VALVE PROCEDURE W CARDIAC CATH	7.3143	26,900
100	CARDIAC VALVE PROCEDURE W PUMP AND WO CARDIAC CATH	5.6310	20,710
100	CORONARY BYPASS W CARDIAC CATH	5.6187	20.664

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		DRG	PAYMENT
DRG #	DISCRIPTION	WEIGHT	WO CAP
			3677.78
	CORONARY BYPASS WIO CARDIAC CATH	4.1803	15.374
	OTHER CARDIOTHORACIC OR VASCULAR PROCEDURES, W PUMP	5.9455	21.866
	OTHER CARDIOTHORACIC PROCEDURES W.O PUMP	0.0000	0
	MAJOR RECONSTRUCTIVE VACULAR PROC. W/O PUMP W CC	4.1308	
	MAJOR RECONSTRUCTIVE VASCULAR PROC W/O PUMP W/O CC	2.2584	-,
	VASCULAR PROCEDURES EXCEPT MAJOR RECONSTRUCTION WIO	1.9922	7,327
	AMPUTATION FOR CIRC SYSTEM DISORDERS EXCEPT UPPER LIM	2.7536	
	UPPER LIMB AND TOE AMPUTATION FOR CIRC SYSTEM DISORDER	1.5363	5,658
	PERM CARDIAC PACEMAKER IMPLANT WAMI. HEART FAILURE OR	3.5513	13,061
· · · · · · · · · · · · · · · · · · ·	PERM CARDIAC PACE MAKER IMPLANT W.O AMIL HEART FAILURE	2.3949	8,808
	CARDIAC PACEMAKER REVISION EXCEPT DEVICE REPLACEMENT	1.1454	4,213
	CARDIAC DEVICE REPLACEMENT	1.5260	5.612
119	VEIN LIGATION AND STRIPPING	1.1247	4,136
	OTHER CIRCULATORY SYSTEM O.R. PROCEDURES	1.9531	7,183
121	CIRCULATORY DISORDERS W AMI AND C.V. COMP DISCH ALIVE	1.6459	6,053
	CIRCULATORY DISORDERS W AMI W/O C.V. COMP DISCH ALIVE	1.1614	4,271
123	CIRCULATORY DISORDERS WAMI EXPIRED	1.4370	5,285
124	CIRCULATORY DISORDERS EXCEPT AMI W CARD CATH AND COMP	1.2933	4.756
125	CIRCULATORY DISORDERS EXCEPT AMI W CARD CATH W/O COMP	0.8767	3.224
126	ACUTE AND SUBACUTE ENDOCARDITIS	2.6049	9,580
127	HEART FAILURE AND SHOCK	1.0302	3.789
128	DEEP VEIN THROMBOPHLEBITIS	0.7929	2.916
129	CARDIAC ARREST, UNEXPLANIED	1.1376	4.184
	PERIPHERAL VASCULAR DISORDERS WITH CC	0.9384	3,451
	PERIPHERAL VASCULAR DISORDERS WO CC	0.6002	2.207
	ATHEROSCLEROSIS W CC	0.6861	2.523
	ATHEROSCLEROSIS WIO CC	0.5347	1.967
	HYPERTENSION	0.5800	2.133
	CARDIAC CONGENITAL AND VALVULAR DISORDER AGE > 17 WITH	0.8988	3,306
	CARDIAC CONGENITAL AND VALVULAR DISORDERS AGE >17 WIO	0.5789	2.129
	CARDIAC CONGENITAL AND VALVULAR DISORDERS AGE 0-17	0.3765	_•
_	CARDIAC ARRHYTHMIA AND CONDUCTION DISORDERS WITH CC		2,893
_	CARDIAC ARRHYTHMIA AND CONDUCTION DISORDERS WITH CC	0.8049	2,960
	ANGIA PECTORIS	0.4945	1,819
		0.6312	2,321
	SYNCOPE AND COLLAPSE WITH CC	0.7149	2,629
	SYNCOPE AND COLLAPSE W/O CC	0.5216	1,918
	CHEST PAIN	0.5159	1,897
	OTHER CIRCULATORY SYSTEM DIAGNOSES W CC	1.0689	3,931
	OTHER CIRCULATORY SYSTEM DIAGNOSES WIO CC	0.6204	2,282
146	RECTAL RESECTION WITH CC	2.5898	9,525
	RECTAL RESECTION W/O CC	1.5368	5,652
148	MAJOR SMALL AND LARGE BOWEL PROCEDURES WITH CC	3.3264	12,234
149	MAJOR SMALL AND LARGE BOWEL PROCEDURES WO CC	1.5654	5,757
150	PERITONEAL ADHESIOLYSIS WITH CC	2.6561	9,769
151	PERITONEAL ADHESIOYSIS WIO CC	1.2606	4.636
152	MINOR SM LARGE BOWEL PROCEDURES WITH CC	1.8860	6.936
153	MINOR SM AND LARGE BOWEL PROCEDURES WITH OUT CC	1.1257	4,140
154	STOMACH ESOPHAGEAL AND DUCCENAL PROCEDURES AGE > 17	4.2102	15.484
155	STOMACH ESOPHAGEAL DUODENAL PROCEDURES AGE > 17 WIO	1.3885	5,107
156	STOMACH ESOPHAGEAL AND DUODENAL PROCEDURES AGE 0-17	0.8101	2,979
157 .	ANALAND STOMAL PROCEDURES WITH CC	1.1048	4.063
158	ANAL AND STOMAL PROCEDURES W/O CC	0.5789	2,129
159	HERNIA PROCEDURES EXCEPT INGUINAL AND FEMORAL AGE >17	1.1707	4,306
		1.1707	7,300

		DRG	PAYMENT
DRG#	DISCRIPTION	WEIGHT	W/O CAP
			3677.78
160	HERNIA PROCEDURES EXCEPT INGUINAL AND FEMORAL AGE >17	0.6746	2.481
	INGUINAL AND FEMORAL HERNIA PROCEDURES AGE >17 W CC	0.9554	3,514
162	INGUINAL AND FEMORAL HERNIA PROCEDURES AGE >17 WIO CC	0.5365	1.973
	HERNIA PROCEDURES AGE 0-17	0.7578	2.787
164	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG WITH CC	2.2374	8.229
	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG WIO CC	1,2365	4,548
186	APPENDECTOMY WIO COMPLICATED PRINCIPAL DIAG WITH CC	1,3695	5,037
	APPENDECTOMY WIO COMPLICATED PRINCIPAL DIAG WIO CC	0.7892	2,903
	MOUTH PROCEDURES WITH CC	1.1761	4.325
	MOUTH PROCEDURES WIO CC	0.6434	2.366
	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES WITH CC	2.7116	9,973
	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES WIO CC	1.1628	4.277
	DIGESTIVE MALIGNANCY WITH CC	1.2896	4.744
	DIGESTIVE MALIGNANCY W/O CC	0.6569	2,416
	G.I. HEMORRAGE WITH CC	0.9880	3,634
• • •	G.I. HEMORRHAGE WIO CC	0.5457	2.007
	COMPLICATED PEPTIC ULCER	1.0563	3,885
	UNCOMPLICATED PERPTIC ULCER	0.8270	3.042
	UNCOMPLICATED PERTIC ULCER W/O CC	0.5990	2.203
	INFLAMMATORY BOWEL DISEASE	1.0993	4.043
	G.I. OBSTRUCTION WITH CC	0.9240	3.398
	G.I. OBSTRUCTION WIO CC	0.5231	1,924
	ESOPHAGITIS. GASTROENT MISC DIGEST DISORDERS AGE .17 WIT	0.7794	2.868
	ESOPHAGITIS GASTROENT MISC DIGEST DISORDERS AGE > 17 W	0.5480	2,015
	ESOPHAGITIS GASTROENT MISC DIGEST DISORDERS AGE 0-17	0.3910	1.438
	DENTAL AND ORAL DIS EXCEPT EXTR. AND RESTOR, AGE >17	0.8892	3.270
	DENTAL AND ORAL DIS EXCEPT EXTRACTIONS AND RETOR AGE 0-	0.3088	1,136
	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE > 17 WITH CC	0.6473	2,381
	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 WITH CC	1.0458	3.846
	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W/O CC	0.5438	2,000
	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE 0-17	1.2379	4.553
	MAJOR PANCREAS, LIVER AND SHUNT PROCEDURES	4.4495	16,364
	MINOR PANCREAS, LIVER AND SHUNT PROCEDURES	1.7103	6.290
	BILIARY TRACT PROC EXCEPT TOT COLECYSTECTOMY W CC	3.2131	11.817
	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE . 17 W/O CC	1.6937	6.229
	TOTAL CHOLECYSTECTOMY W.C.D.E.W.CC	2.6147	9.616
	TOTAL CHOLECYSTECTOMY W.C.D.E. WO.CC	1.5695	5.772
	TOTAL CHOLECYECTOMY WIO C.D.E. WICC	2.2034	8,104
	TOTAL CHOLECYSTECTOMY WIO C.D.E. WIO CC	1.1355	4,176
	HEPATOBILIARY DIAGNOSTIC PROCEDURE FOR MALIGNANCY	2.3309	8.573
	HEPATOBILIARY DIAGNOSTIC PROCEDURE FOR NON-MALIGNANC	3.0158	11.091
	OTHER HEPATOBILIARY OR PANCREAS O.R. PROCEDURES	3.2951	12.119
	CIRROSIS AND ALCOHOLIC HEPATITIS	1.3177	4.846
	MALIGNANCY OF HEPATOBILIARY SYSTEM OR PANCREAS	1.2187	4.482
	DISORDERS OF PANCREAS EXCEPT MALIGNANCY	1.2020	4.421
	DISORDERS OF LIVER EXCEPT MALIG. CIRR. ALC HEPA W.CC	1.2276	4,515
	DISORDER OF LIVER EXCEPT MALIG. CIRR ALC HEPA WO CC	0.6801	2,501
	DISORDERS OF THE BILLIARY TRACT WITH CC	1.0287	3,783
	DISORDERS OF THE BILIARY TRACT WIO CC	0.5943	3,763 2,186
	MAJOR JOINT AND LIMB REATTACHMENT PROCEDURES	2.2707	2,100 8,351
	HIP AND FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE > 17 W	1.8616	6,331 6,847
	HIP AND FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE > 17 W	1.2893	4.742
	HIP FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE 0-17	1.1296	
616	···· · ········· · · · · · · · · · · ·	1.1290	4,154

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-		DRG	PAYMENT
DRG #	DISCRIPTION	WEIGHT	WO CAP
			3677.78
	AMPUTATION FOR MUSCULOSKELETAL SYS AND COMM TISSUE DI	1.7196	6.324
214	BACK AND NECK PROCEDURES W CC	1.9184	7.055
215	BACK AND NECK PROCEDURES W/O CC	1.0924	4,018
216	BIOPSIES OF MUSCULOSKELETAL SYS AND CONNECTIVE TISSUE	2.1075	7.751
	WAID DEBLA SKIN GRFT EXC.FOR MUSCKELET & CONN TISS DIS	2.8975	
218	LOWER EXTREM AND HUMER PROC EXCEPT HIP ,FOOT FEMUR AG	•	10.656
210	LOWER EXTREM HUMER PROC EXCEPT HIP FOOT FEMUR ANG >17	1.4231	5.234
210	LOWER EXTREM HUMER PROC EXCEPT HIP FOOT FEMUR AGE 0-1	0.9179	3.376
		0.5611	2.064
	KNEE PROCEDURES W CC	1.8463	6.790
222	KNEE PROCEDURES WIO CC	0.9747	3.585
223	MAJOR SHOULDER/ELBO PROC. OR OTH UPPER EXTREMITY PROC	0.8364	3.076
224	SHOULEDER, ELBO OR FOREARM PROC. EXC MAJOR JOINT PROC.	0.6963	2.568
	FOOT PROCEDURES	0.9504	3.495
226	SOFT TISSUE PROCEDURES W CC	1.3656	5.022
	SOFT TISSUE PROCEDURES WO CC	0.7273	
	MAJOR THUMB OR JOINT PROC. OR OTH HAND OR WRIST PROC W		2.675
229	HAND OR WRIST PROC. EXCEPT MAJOR JOINT PROC. WO CC	0.9315	3.426
220	1 OCAL EXCIPION AND DEMONAL OF BEEN BEING ON THE ARREST	0.5965	2,194
230	LOCAL EXCISION AND REMOVAL OF INT FIX DEVICES OF HIP &FEM	1.0399	3.825
231	LOCAL EXCISION AND REMOVAL OF INT FIX DEVICES EXCEPT HEP	1.2131	4,462
	ARTHROSCOPY	1.0578	3.890
233	OTHER MUSCULOSKELET SYS AND COMM TISS O.R. PROC WITH C	1.9275	7.089
234	OTHER MUSCLOSKELET SYS AND COMM TISS O.R. PROC WO CC	1.0039	3.692
	FRACTURES OF FEMUR	0.8501	3,126
236	FRACTURES OF HIP AND PELVIS	0.7818	
237	SPRAINS STRAINS DISLOCATIONS OF HIP PELVIS AND THIGH		2,875
	OSTEOMYELITIS	0.5711	2,100
		1.4356	5,280
240	PATHOLOGICAL FRACTURES AND MUS. CONN. TISS MALIGNANCY	1.0219	3,758
240	CONNECTIVE TISSUE DISORDERS W. CC	1.1900	4,377
241	CONNECTIVE TISSUE DISORDERS W/O CC	0.5986	2.202
	SEPTIC ARTHRITIS	1.1295	4,154
243 (MEDICAL BACK PROBLEMS	0.7248	2.666
244 (BONE DISEASE AND SPCIFIC ARTHROPATHIES W CC	0.7446	2,738
245 (BONE DISEASES AND SPECIFIC ARTHROPATHIES W/O CC	0.5050	
246	NON-SPECIFIC ARTHROPATHIES	0.5646	1.857
247	SIGNS & SYMP. OF MUSCUL SYS. AND CONN TISSUE		2,076
248	FENDONITIS MYOSITIS AND BURSITIS	0.5534	2,035
249	AFTERCARE MUSCULOSKELETAL SYS CONN TISSUE	0.7275	2,676
250 1	TENOME MUSCULUSNELE IAL 575 CUNN TISSUE	0.6558	2,412
250	TENDONITIS MYOSITIS AND BURSITIS	0.71 93	2.645
251 /	VFTER MUSCULOSKELETAL SYS. AND CONN TISSUE	0.4423	1.627
252 !	X SPRN STRN AND DISL OF FOREARM HAND FOOT AGE > 17 W C	0.2438	897
253 F	X SPRN STRN AND DISL OF UPARM LOWLEG EX FOOT AGE >17	0.7637	2,809
254 F	X SPRN STRN AND DISL OF LIPARM LOWLEG EX FOOT AGE >17 W	0.4365	1,605
255 F	X SPRN STRN AND DISL OF UPARM LOME FOR EX FOOT AGE 0.17	0.4338	-,
256 (OTHER MUSCLOSKELETAL SYST CONN TISSUE DIAGNOSES		1,044
257 1	OTAL MASTECTOMY FOR MALIGNANCY W CC	0.6419	2,361
258 1	OTAL MASTECTOMY FOR MALIGNANCY WIO CC	0.8997	3.309
250 5	FUBTOTAL MASTECTOMY FOR CC	0. 696 5	2.562
200 (HIBTOTAL MACTECOMY FOR CC	0.8765	3.224
29U 3	SUBTOTAL MASTECTOMY FOR MALIGNANCY WO CC	0.5749	2,114
201 E	REAST PROC FOR NON-MALIGNANCY EXCEPT BIOPSY AND LOCA	0.8080	2.972
1	MEAST SICESY AND LOCAL EXCISION FOR MICH 4641 MICHARITY	0.7115	2.817
253 8	KIN GRAFT & IOR DEBID FOR SKN LILCER OR CELLINGREW CC	2.2344	8.218
204 3	KIN GRAFT &/OR DEBRID FOR SKN LILCER OR CELLIN ITIE WAS CC	1.1633	
265 S	KIN GRAFT & OR DEBRID EXCEPT FOR SKIN ULCER OR CELLULITI		4.278
		1.4131	5,197

	Bi : 201112 14 1144	DRG	PAYMENT
DRG#	DISCRIPTION	WEIGHT	W/O CAP
		VEIGHT	3677.78
264	SKN GRAFT & OR DEBRID EXCEPT FOR SKIN LILCER OR CELLULITI	0.7451	2.740
	PERIANAN AND PILONIDAL PROCEDURES	0.8022	2.950
	SKIN SUBCUTANIOUS TISSUE AND BREAST BLASTIC PROCEDURE	0.9068	3.335
	OTHER SKIN SUBCUT TISS AND BREAST PROCEDURE W.C.C		
	OTHER SKIN SUBCT TISS, AND BREAST PROCEDURE W/O CC	1.6495 0.6796	6.066
	SKIN ULCERS		2.499
	MAJOR SKIN DISORDERS W CC	1.1157	4.103
	MAJOR SKIN DISORDERS WIO CC	1.0208	3.754
	MALIGNANT BREAST DISORDERS W CC	0.6403	2.355
	MALIGNANT BREAST DISORDERS WO CC	1.0741	3.950
2/3	NON-MALIGNAT BREAST DISORDERS	0.4845	1.782
		0.6418	2.360
_	CELLULITIS AGE >17 W CC	0.8703	3,201
	CELLULITIS AGE > 17 W/O CC	0.5822	2,141
	CELLULTIS AGE 0-17	0.7070	2,600
	TRAUMA TO THE SKIN SUBCUT TISS AND BREAST AGE > 17 W CC	0.6847	2,518
	TRAUMA TO THE SKIN SUBCUT TISS AND BREAST AGE > 17 WIO C	0.4523	1,663
	TRAUMA TO THE SKIN SUBU TISS AND BREAST AGE 0-17	0.2467	907
	MINOR SKIN DISORDERS W CC	0.7171	2,637
	MINOR SKIN DISORDERS WIO CC	0.4307	1,584
	AMPUTAT FO LOWER LIMB FOR ENDOCRINE NUTRIT AND METABO	2.3880	8,783
	ADRENAL AND PITUTIARY PROCEDURES	2.3163	8,519
	SKIN GRAFT AND WOUND DEBRID FOR ENDOC NUT METAB DISOR	2.1126	7,770
	O.R. PROCEDURES FOR OBESITY	2.0397	7,502
	PARATHYROID PROCEDURES	1.0385	3,819
	THYROID PROCEDURES	0.8537	3,140
291	THYROGLOSSAL PROCEDURES	0.4657	1,713
	OTHER ENDORCRINE NUT METAB O.R. PROC. W CC	2.6301	9,673
293	OTHER ENDORCRIN NUT AND MET O.R. PROC W/O CC	1.1866	4.364
294	DIABETES AGE >35	0.7579	2.787
	DIABETS AGE 0-35	0.7634	2,806
296	NUTRITIONAL AND MISC METABOLIC DISORDERS AGE >17 W CC	0.9166	3,371
297	NUTRITIONAL AND MISC METABOLIC DISORDERS AGE > 17 W/O CC	0.5353	1,969
298	NUTRITIONAL AND MISC METABLOLIC DIS AGE 0-17	0.4756	1,749
	INBORN ERRORS OF METABOLISM	0.9790	3,601
300	ENDOCRIN DISORDERS W CC	1.0919	4.016
	ENDROCINE DISORDER W/O CC	0.5181	2.273
302	KIDNEY TRANSPLANT	4.1370	15.215
303	KINDNEY URETER AND MAJOR BLADDER PROC FOR NEOPLASM	2.6171	9.625
304	KIDNEY URETER AND MAJOR BLADDER PROC FOR NON-NEOPL W	2.3715	8,722
	KIDNEY URETER AND MAJOR BLADDER PROC FOR NON-NEOPL W	1.1600	4.266
306	PROSTATECTOMY W CC	1.2441	4.576
307	PROSTATECTOMY WIO CC	0.6839	2.442
308	MINOR BLADDER PROCEDURES W CC	1.4848	5.461
	MINOR BLADDER BROCEDURES W/O CC	0.8061	2.965
310	TRANSURETHRAL PROCEDURES W.CC	0.9694	2.565 3.565
311	TRANSURETHRAL PROCEDURES WIO CC	0.5486	2.018
312	URETHRAL PROCEDURES AGE >17 W CC		
313	URETHRAL PROCEDURES AGE >17 WIO CC	0.8891 0.5008	3.270
314	URETHRAL PROCEDURES AGE 0-17		1.842
315	OTHER KIDNEY URINARY TRACT O.R. PROCEDURES	0.4756	1.749
316	RENAL FAILURE	2.0612	7.581
	ADMIT FOR RENAL DIALYSIS	1.2996	4.780
318	KIDNEY AND URINARY TRACT NEOPLASMS W CC	0.6556	2.411
	AND THE SUITANT INVESTIGATIONS MICE	1.1007	4.048

	EFFECTIVE 10/1/85		
		DRG	PAYMENT
DRG#	DISCRIPTION	WEIGHT	WO CAP
			<u>3677.78</u>
	9 KIDNEY URINARY TRACT NEOPLASMS W/O CC	0.5432	1.998
	O KIDNEY AND URINARY TRACT INFECTIONS AGE >17 W CC	0.9320	3.428
	1 KIDNEY AND URINARY TRACT INFECTIONS AGE >17 W/O CC	0.6104	2.245
	2 KIDNEY AND URINARY TRACT INFECTIONS AGE 0-17	0.6651	2,446
32	3 URINARY STONES WITH CC & OR ESW LITHOTRIPSY	0.7281	2,678
	4 URINARY STONES WIO CC	0.3992	1,468
	5 KIDNEY AND URINARY TRACT SIGNS AND SYMPTONS AGE >17 W C	0.6436	2.367
	B KIDNEY AND URINARY TRACT SIGNS AND SYMPTONS AGE >17 WIO	0.4233	1.557
	7 KIDNEY AND URINARY TRACT SIGNS AND SYMPTONS AGE 0-17	0.2302	847
	URETHRAL STRICTURE AGE >17 W CC	0.6672	2.454
	D URETHRAL STRICTURE AGE >17 W/O CC	0.4233	1,557
	URETHRAL STRICTURE AGE 0-17	0.3063	1,127
	OTHER KIDNEY URINARY TRACT DIAGNOSES AGE .17 W CC	1.0122	3.723
	OTHER KIDNEY AND URINARY TRACT DIAGNOSES AGE >17 WIO C	0.6176	2, 2 71
333	3 OTHER KIDNEY AND URINARY TRACT DIAGNOSES AGE 0-17	0.8701	3,200
	MAJOR MALE PELVIC PROCEDURES W CC	1.6948	6.233
-	MAJOR MALE PELVIC PROCEDURES WIO CC	1.3044	4,797
	S TRANSURETHRAL PROSTATECTOMY W CC	0.8802	3,237
	TRANSURETHRAL PROSTATECTOMY W/O CC	0.6128	2,254
	TESTES PROCEDURES FOR MALIGNANCY	1.0260	3,773
	SURG TESTES PROCEDURES NON MALIGNANCY AGE >17	0.9330	3,431
340	TESTES PROCEDURES NON-MALIGNANCY AGE 0-17	0.2723	1,001
	PENIS PROCEDURES	1.0699	3,935
342	CIRCUMCISION AGE >17	0.7360	2,707
343	CIRCUMCISION AGE 0-17	0.1479	544
	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROCEDURDS FOR M	1.0209	3,755
345	OTHER MALE REPORDUCTIVE SYSTEM O.R. PROC EXCEPT FOR M	0.8435	3,102
346	MALIGNANCY MALE REPROCTIVE SYSTEM W CC	0.9626	3,540
347	MALIGNANCY MALE REPRODUCTIVE SYSTEM W/O CC	0.4853	1,785
348	BENIGN PROSTATIC HYPERTROPHY W CC	0.7106	2,613
349	BENIGN PROSTATIC HYPERTROPHY WIO CC	0.4241	1,560
350	INFLAMMATION OF THE MALE REPRODUCTIONE SYSTEM	0.6810	2,505
351	STERILIZATION MALE	0.2271	835
352	OTHER MALE REPRODUCTIVE SYSTEM DIAGNOSES	0.5932	2,182
353	PELVIC EVISCERATION RADICAL HYSTERECTOMY & RADICAL VUL	1.9483	7,165
354	UTERINE ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W.C.	1.4609	5,373
355	UTERINE ADNEXA PROC FOR NON-OVARIAN / ADNEXAL MALIG W/	0.8881	3,266
356	FEMALE REPRODUCTIVE SYSTEM RECONSTRUCTIVE PROCEDURE	0.7323	2,693
357	UTERINE ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIG	2.3679	8,709
358	UTERINE AND ADNEXA OPROC FOR NON-MALIGNANCY W CC	1.1458	4.214
359	UTERINE AND ADNEXA PROC FOR NAO MALIGNANCY W.O CC	0.8072	2.969
360	VAGINA CERVIX AND VULVA PROCEDURES	0.8739	3.214
361	LAPAROSCOPY AND INCISIONAL TUBAL INTERRUPTION	1.1964	4,407
	ENDOSCOPIC TUBAL INTERUPTION	0.2902	1.067
363	D&C CONIZATION AND RADIO IMPLANT FOR MALIGNANCY	0.6881	2.531
364	D&C CONIZATION EXCEPT FOR MALIGNANCY	0.6667	2.452
365	OTHER FEMAL REPRODUCTIVE SYSTEM O.R. PROCEDURES	1.7739	6.524
386	MALIGNANCY FEMALE REPRODUCTIV SYSTEM WITH CC	1.1405	4,195
367	MALIGNANCY FEMALE REPRODUCTIVE SYSTEM WIO CC	0.5179	1,905
368	INFECTIONS FEMALE REPRODUCTIVE SYSTEM	0.9641	3.619
369	MENSTRUAL AND OTHER FEMAL REPRODUCTIVE SYSTEM DISORD	0.5130	1,887
	CESAREAN SECTION W CC	0.9573	3.521
371	CESAREAN SECTION WIO CC	0.6531	2.402
			-1700

	ELLEGING IT WAS		
		DRG	PAYMENT
DRG #	DISCRIPTION	WEIGHT	WO CAP
			3677.78
372	VAGINAL DELIVERY W COMPLICATION DIAGNOSES	0.5558	2.044
373	VAGINAL DELIVERY WIO COMPLICATIN DIAGNOSES	0.3446	1.257
	VAGINAL DELIVERY W STERLIZATION AND OR D AND C	0.5721	
• • •	VAGINAL DELIVERY WO.R. PROCE. EXCEPT STERIL AND OR D.AN		2,472
		0.6587	2.423
	POSTBARTUM AND POST ABORTION DIAG. W/O O.R.PRO.	0.4418	1.625
	POSTPARTUMA AND POST ABORTION DIAG. W O.R. PROC	0.8181	3.009
	ECTOPIC PREGNANCY	0.740 9	2.725
379	THREATENED ABORTION	0.3962	1,457
380	ABORTION WIO D.A.C.	0.3742	1,376
381	ABORTION W D&C ASPIRATION CURETTAGE OR HYSTYERTOMY	0.4673	1.719
	FALSE LABOR	0.1922	
	OTHER ANTEPARTUM DIAGNOSES W MEDICAL COMPLICATIONS		707
		0.4587	1,687
	OTHER ANTERPARTUM DIAGNOSES W/O MEDICAL COMPLICATION	0.2818	1.036
	NEONATES DIED OR TRANSFERRED TO ANOTHER ACUTE CARE FA	1.3219	4.862
386	EXTREME IMMATURITY OR RESPIRATORY DIS SYN NEONATE	4.3591	16,032
367	PREMATURITY W MAJOR PROBLEMS	2.9772	10.949
	PREMATURITY WIO MAJOR PROBLEMS	1.7964	6.607
	FULL TERM NEONATE W MAJOR PROBLEMS	2.3785	
	NEONATE W OTHER SIGNIFICANT PROBLEMS		8,748
		0.6218	2.287
	NORMAL NEWBORN	0.1465	539
	SPLENECTOMY AGE >17	3.1906	11,735
393	SPLENECTOMY AGE 0-17	1.2949	4.762
394	OTHER O.R. PROC OF THE BLOOD AND BLOOD FORMING ORGANS	1,6252	5.977
	RED BLOOD CELL DISORDERS AGE >17	0.8359	3.C74
	RED BLOOD CELL DISORDERS AGE 0-17	0.5960	2.199
	COAGULATION DISORDERS		
		1.2825	4,717
	RETICULOENOOTHELIAL AND IMMUNITY DISORDERS W CC	1.2360	4,546
	RETICULOENDOTHELIAL AND IMMUNITY DISORDERS W/O CC	0.6934	2,550
400	LYMPHOMA AND LEUKEMIN MAJOR O.R. PROCEDURE	2.6034	9,575
401	LYMPHOMA AND NON-ACUTE LEUKENIA W OTHER O.R. PROC WIO	2.4533	9.023
	LYMPHOMA AND NON-ACUTE LEUDEMIA W OTHER O.R. PROC WIO	0.9428	3.467
	LYMPHOMA LYMPHOMA AND NON-ACUTE LEUKEMA W CC	1.6823	6,187
	LYMPHOMA AND NON-ACUTE LEUKEMIA W/O CC		
		0.8140	2,994
	ACUTE LEUKEMIA WIO MAJOR O.R. PROCEDURE AGE 0-17	1.8358	6,752
405	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R. PROC	2.6558	9,767
407	MYELOPROLIF DIS OR POORLY DIFF NEOPL W MAJ O.R. PROC WIO	1.1626	4,276
406	MYELOPROLIF DISORD OR POORLY DIFF NEOPL WOTHER O.R. PR	1.6840	6,193
409	RADIOTHERAPY	0.9475	3.485
410	CHEMOTHERAPY	0.7172	2.638
	HISTORY OF MALIGNANCY WIO ENDOSCOPY	0.5015	
	HISTORY OF MALIGNANCY W ENDOSCOPY		1,844
		0.4530	1,666
	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W CC	1.3422	4,936
414	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG WID CC	0.7285	2,679
415	O.R. PROCEDURE FOR INFECTIOUS AND PARASITIC DISEASES	3.4769	12,787
416	SEPTECEMA AGE >17	1.4770	5.432
417	SEPTECEMIA AGE 0-17	0.8764	3.223
	POSTOPERATIVE AND POST -TRAUMATIC INFECTIONS	0.9777	3,596
410	FEVER OF UNKNOWN ORIGIN AGE >17 WITH CC	0.9223	3,392
494	ESVED OF THINKING ORDER AND THE PARTY OF THE		
460	FEVER OF UNKNOWN ORIGIN AGE >17 WOCC	0.6258	2,302
	VIRAL ILINESS AGE >17	0.6982	2,568
422	VIRAL ILLNESS AND FEVER OF UNKNOWN ORIGIN AGE 0-17	0.5446	2.003
423	OTHER INFECTIONS AND PARASITIC DISEASES DIAGNOSES	1.5828	5,821
424	O.R. PROCEDURE W PRINCIPAL DIAGNOSES OF MENTAL ILLNESS	2.4543	9.026

	ELLECTIAS IM 1/20		
		DRG	PAYMENT
DRG #	DISCRIPTION	WEIGHT	WO CAP
			<u>3677.78</u>
425	ACUTE ADJUST REACT AND DISTURBANCES OF PSYCHOLOGIAL D	0.7129	2,622
426	DEPRESSIVE NEUROSES	0.5949	2,188
427	NEUROSES EXCEPT DEPRESSIVE	0.5794	2,131
428	DISORDER OF PERSONALITY AND IMPULSE CONTROL	0.6847	2.518
429	ORGANIC DISTURBANCES AND MENTAL RETARDATION	0.9537	3,507
430	PSYCHOSES .	0.8670	3,189
431	CHILDHOOD MENTAL DISORDERS	0.6362	2.340
	OTHER MENTAL DISORDER DIAGNOSES	0.7018	2.581
	ALCOHOL / DRUG ABUSE OR DEPENDENCE LT AMA	0.3060	1,133
	ALC DRUG ABUSE OR DEPENDENCE DETOX OR OTHER SYMPT TR	0.7373	2.712
	ALC/DRUG ABUSE DEPENDENCE DETOX OR OTHER SYMPT TRT W	0.4249	1.563
	ALC/ DRUG DEPENDENCE W REHABILITAITON THERAPY	0.8384	3.083
	NLC/ DRUG DEPENDENCE COMBINED REHAB AND DETOX THERAP	0.7972	2,932
	NO LONGER VAILD	0.0000	2,532
	SKIN GRAFTS FOR INJURIES	1.6599	
	WOUND DEBRIDEMENTS FOR INJURIES		6,105
		1.7792	6,544
	HAND PROCEDURES FOR INJURIES	0.8785	3,231
_	OTHER O.R. PROCEDURES FOR INJUIEES W CC	2.0636	7,663
	OTHER O.R. PROCEDURES FOR INJURIES WIO CC	0.8130	2,990
	MULTIPLE TRAUMA AGE > 17 WITH CC	0.7290	2,681
	MULTIPLE TRAUMA AGE >17 W/O CC	0.4664	1,715
	MULTIPLE TRAUMA AGE 0-17	0.2846	1,047
447	ALLERGIC REACTIONS AGE >17	0.4976	1,830
448	ALLERGIC REACTIONS AGE 0-17	0.0696	330
	POISONING AND TOXIC EFFECTS OF DRUGS AGE >17 WITH CC	0.7886	2,900
	POISONING AND TOXIC EFFECTS FO DRUGS AGE >17 W/O CC	0.4329	1,592
451	POISONING AND TOXIC EFFECTS OF DRUGS AGE 0-17	0.2527	929
	COMPLICATIONS OF TREATMENT W CC	0.9127	3,357
	COMPLICATIONS OF TREATMENT WIO CC	0.4752	1.748
	OTHER INJURY POISONING TOXIC EFF DIAG W CC	0.4702	3.275
	OTHER INJURY POISONING AND TOXIC EFF DIAG W/O CC	0.4589	
	BURNS TRANSFERRED TO ANOTHER ACUTE CARE FACILITY		1,725
457	EXTENSIVE BURNS WID O.R. RPOCEDURE	1.9410	7,139
73/ 460	NONCENTENDE & BURNE MA CONTROL	1.5849	5,829
435	NONOEXTENSIVE BURNS W SKIN GRAFT	3.4645	12,742
439	NON-EXTENSIVE BURNS W WOUND DEBRIDEMENT OR OTHER O.R.	1.9396	7.134
460	NON-EXTENSIVE BURNS WIO O.R. PROCEDURE	0.9369	3,446
	O.R. PROC W DIAGNOSES OF OTHER CONTACT W HEALTH SERVIC	1.0104	3,716
	REHABILITATION	1.4731	5,418
	SIGNS AND SYMPTONS W CC	0.7416	2,727
464	SIGNS AND SYMPTONS WIO CC	0.4972	1.829
465	AFTERCARE W HISTORY OF MALIGNANCY AS SECONDARY DIAGN	0.4362	1.604
405 .	AFTER CARE WIO HISTORY OF MALIGNANCY AS SECONDARY DIA	0.5601	2,060
467	OTHER FACTORS INFLUENCING HEATH STATUS	0.4291	1.578
468	UNRELATED OPERATING ROOM POCEDURES	3.5391	13.016
460	PRINCIPAL DIAGNOSIS INVALID AS DISCHARGE DIAGNOSIS	0.0000	0.5.51
470	UNGROUPABLE	0.0000	ŏ
	BILATERAL OR MULT. MAJOR JOINT PROCS OF LOWER EXTREMIT		
479	EXTENSIVE BURNS W O.R. PROCEDURE	3.6458	13,408
472	ACUTE LEUKEMIA WIO MAJOR O.R. PROCEDURE AGE >17	10.6993	39,350
474	PERSIDATABLE EVETEM PMOUNT U.R. PRUCEDUNE AGE 217	3.4797	12,798
478 :	RESPIRATORY SYSTEM DIAGNOSIS W TRACHEOSTOMY	0.0000	0
713 (RESPIRATORY SYSTEM DIAGNOSIS W VENTILATOR SUPPORT	3.7015	13,613
7/0	PROSTATIC O.O. PPOCEDURE UNRELATED TO PRINCIPAL DIAGNO	2.2703	8.350
477	NON-EXTENSIVE O.R. PROCEDURE UNRELATED TO PRINCIPAL DIA	1.5682	5.767

DRG	DISCRIPTION	DRG	PAYMENT
UNG -	DISCRIPTION	WEIGHT	WO CAP
47	8 OTHER VASCULAR PROCEDURES WICC		<u>3677.78</u>
47	O OTHER VASCULAR PROCEDURES WO CC	2.2709	8.352
49	LIVER TRANSPLANT	1.3864	5.099
		16.3066	59,972
70	1 BONE MARROW TRANSPLANT	11.6796	42.955
46.	2 TRACHEOSTOMY W MOUTH, LARYNX OR PHARYNX DISORDER	3.6620	13.468
46	FRACHEUSTOMY EXCEPT FOR MOUNT LABOUR OR SUASION THE	16.1000	59.245
40	COUNDIUMY FOR MULTIPLE SIGNIFICANT TRAINA	5.4488	
48:	LINE REATTACH, HIP AND FEMLIR PROCE FOR MEETI CHANTENALING		20,039
486	OTHER O. R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA	3.2610	11,993
487	OTHER MULTIPLE SIGNIFICANT TRAUMA	4.8763	17,934
486	HIV W EXTENSIVE O.R. PROCEDURE	1.9932	7,331
480	HIV W MAJOR RELATED CONDITION	4.2177	15.512
490	HIVW OR WIN CENTED COUNTY ON	1:7856	6.567
404	HIV W OR WIO OTHER RELATED CONDITION	1.0476	3,853
401	MAJOR LIMB OR JOINT REATTACHMENT UPPER EXTREMITIES	1.6088	5.917
482	CHEMO W ACCUTE LEUKEMIA AS SECOMPARY PLACHORIE	4,1529	
783	DAPAROSCOPIC CHOLECYSTECTOMY WIN CIN R WILCO	1.6501	15.273
494	LAPAROSCOPIC CHOLECYSTECTOMY W/O X.D.E. W/O CC		6,069
495	LUNG TRANSPLANT	0.8769	3.225
_	- · · · · · · · · · · · · · · · · ·	9.5678	35,188

Appendix B Sample Survey Instrument

Case Manager/Discharge Planner/Social Worker Acute Care Survey

DEMOGRAPHIC INFORMATION							
Please	chec	k which discipline you represent:		_			
		•	☲	LPN	2	Social Work Techinician	
		wer the following questions by e e number.	ntei	ring a check in t	he appro	priate box or entering the	
I.	Ed	ucational Level:					
		Diploma degree in numing					
		Associate degree in nursing					
		Bachelor degree in nursing or soc	ial v	voek			
		Masters degree in nursing or soci	al w	ork			
		Ph.D. or Ed.D.					
		Pursuing Bachelors					
		Pursuing Masters					
		Other					
		nat year did you graduate?			vork:	years	
IV.	W	nat group of hospital patients do yo	n 1.0	utinely manage o	m a daily	basis and how long have you	
	wo	cked with that group of patients?				·	
		Medical-surgical floors			years		
		Orthopedic			years		
		Neurological			years		
		Cardiac			years		
		Other (OB, Peds, Emergency Dep	L, et	c.)	years		
V.	Wh	nat areas of post-acute care do you p	rim	arily facilitate?			
		Long-term care hospital					
		Home health care/Home IV Infus	ion				
		Rehabilitation					
		Skilled nursing home placement					
		Hospice					
	_	Adult Foster Care					
		All of the above					

	-	vices, five (5) being very important and one	Very	Moderat	_	Not At A
		•	Important	Imports	_	Importa
	A.)	Type of insurance	5 	4 3	2	l
		,,	•		,	
	B.)	Doctors support in the discharge process	5 	4 3		
		••	5	4 3	2	1
	C.)	Age of petient	ř		 -	i
			5	4 3	2	1
	D .)	Hospital length of stay				
			5	4 3	2	1
	E.)	Where the patient lives		++-		
			5	4 3	2	1
	F.)	Gender of patient	 			
	~\	Petient lives alone	5	4 3	2	1
	G .)	Patient lives alone	 			
	H)	Patient has had previous hospitalizations	5	4 3	2	1
	,	1 and the last brevious suspensions		· · · · ·		1
	L) Medical diagnosis	5	4 3	2	1	
		_				
	J.) Insurance benefits	5 	4 3	2	l	
	• •		•	•	•	•
VII.	Hav	ve you had any formal education or training	g (orientation,	inservice educa	tion) in the	e last five yo
	in t	he following areas?				
	QM	ick all that apply.				
		DRG hospital reimbursement				
		Nursing home reimbursement				
		Home health care reimbursement				
	<u> </u>	Rehabilitation reimbursement				
		Pathway Management				
		Utilization Management				
	•••				_	
Щ.		at division does the discharge planning dep	sarument répor	t to? (Departm	ent means	
		fessional perspective or discipline.) Nursing				
		Social work				
		Administration				
	_	Finance				

•

X. List the number of paid hours you work in a week:____hours.

XI. Please note the amount of time spent on the following work activities defined below:

A.) ASSESSMENT

Assessing the patient and families' need for discharge planning services to include assessment of the patient and family's adjustment to the illness and hospitalization.

B.) DOCUMENTATION

Recording of assessment finding, tentative discharge plan, and potential referral sites. Certification of admission and continued stay.

C.) COUNSELING

Courseling is a function of mediating family, patient, and insurance disputes regarding the discharge plan. Provides therapeutic interviews for the patient and family. Coursel patients/family regarding Advance Directives Discharge Planning Option.

D.) SECURING RESOURCES

Coordinating aftercare services, phoning reports, faxing hospital documents, completing transfer forms, contracting agencies, arranging for patient transportation and qualifying patients for post-hospital services.

E) OPTIMIZING DRG REIMBURSEMENT/UTILIZATION MANAGEMENT

Monitoring patients' length of stay, DRG assignment, resource use, etc., with the intent of optimizing reimbursement on an individual case basis. Managing clinical pathways, utilization review, and coordinating inpatient care.

F.) QUALITY CARE ASSESSMENT

Time spent reviewing the quality of post-hospital discharge sites and overall efficiency.

G.) COMMUNICATING

Communicating the primary care physicians treatment plan with other physicians and health care team members

For a typical week, please estimate the percent of time spent on the following tasks with the total hours equaling your answer to question number ten. Estimate the percent of time on hours paid for the following activities using the definitions above.

See below

		Estimate percent of time per week
A.)	Assessment	C
B .)	Documentation	□
C)	Courseling	C
D.)	Securing Resources	C
E)	Optimizing DRG Reiznburnement Utilization Management	J
F.)	Quality Care Assessment	·
G.)	Communicating	=
	TOTAL HOURS	=

•

XII. As part of your collegiste education please rate the degree to which the following components were stressed as being most integral to the preparation for your professional role.

	Highly Stressed	Moderately Stressed	Stressed	Slightly Stressed	Not Stressed At All
A.) Assessment skills	5	4	3	2	1
B.) Courseling skills	5 	4	3	2	1
C.) Documentation skills	5 	4	3	2	1
D.) Securing resources	5 	4	3	2	1
E.) Health care reimbursement (i.e.; strategie	s 5 	4	3	2	1
on optimizing DRG reimbursement) Utilization Management	5	4	3	2	1
F.) Quality assessment of post-hospital care efficacy	5	4	3	2	l 1
G.) Communication with hospital health care team members and physicians	 		 		

XIII. Please rate the following functions as to their importance in your professional role as a discharge

planner/case manager.	Very Important	Moderately Important	Important	Somewhat Important	Not At All Important
	5	4	3	2	1
A.) Assessment	5	4	3	2	1
B.) Counseling	5	4	3	2	1
C.) Documentation	5	4	3	2	1
D.) Securing resources	6	A	3	,	1
E.) Health care reimbursement (i.e.; strateg on optimizing DRG reimbursement) Utilization Management	ies	— 		i	i 1
F.) Quality assessment of post-hospital care efficacy	5	4	3	2	1
G.) Communication with hospital health care team members and physicians					•

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Abstract

A STUDY OF HEALTH CARE REFORM EFFECTS ON THE FUNCTION AND PHILOSOPHY OF DISCHARGE PLANNERS: A PROPOSED CHANGE IN THE CURRICULUM OF HOSPITAL DISCHARGE PLANNERS.

by

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December 1997

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Results and Implications

The Medicare data used for the study comes from previous RAND studies and data from a sample community hospital for comparisons of average lengths of stay, post hospital utilization, characteristics of patients who have a propensity to use post hospital care by gender, age and diagnosis. The study examines how reimbursement has effected patient care management therefore changing the hospital discharge planners priorities. The activities where discharge planners spend the majority of their time were stressed the least during their collegiate preparation as rated by the discharge planners through a survey instrument. Patients are experiencing shorter hospital lengths of stay, increase use of post hospital care and discharge planners find themselves spending the majority of their time on DRG optimization/utilization management, communication, securing resources and quality care assessment which totaled 60 percent of their time in an average work week. These areas were less stressed during the discharge planners collegiate education. Only 25 percent to 63

percent of the respondents stated these activities were stressed to highly stressed during their professional education. Changes in the curriculum of registered nurses and social workers who wish to become discharge planners must occur in the areas of health care reimbursement, communication, and particularly in the area of measuring quality of care across a continuum of services. A review of university sample curriculums by title indicates that very little attention is given explicitly to proprietary content which will be driving how our health care system functions now and well into the future. One approach to educating existing staff would be to offer a standardized university curriculum and certification exam to demonstrate proficiency in the new proprietary climate. Education is regarded as a primary strategy for transitioning practitioners into the new roles created by changes occurring in how our health care services are funded.

AUTOBIOGRAPHICAL STATEMENT

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Education

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Wayne State University, Detroit, Michigan.

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Professional Background

Significant experience in strategic planning, facility design, and program development and implementation for long-term care hospitals, acute rehabilitation units, subacute care units, comprehensive outpatient rehabilitation facilities, skilled nursing facilities, assisted living, home care, and case management across the continuum.

Skilled in conducting the process of medicare certification for long-term care hospitals and rehabilitation units as well as the Commission on Accreditation of Rehabilitation Facilities certification for acute rehabilitation units.

Significant consulting experience consists of strategic post-acute planning based on computer modeling, including bed need methodologies, designing pro formas, establishing resource utilization monitoring systems, and developing clinical and financial patient profiles through software support.

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Workshop for the Development of Outpatient Rehabilitation Programs and Services," Global Research, Orlando, Florida, 1996.

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