EXPLORING THE EFFECT OF POST-ACUTE CARE SERVICES ON HOSPITAL LENGTH OF STAY IN NEW JERSEY'S MEDICARE POPULATION

Final Report

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Report of the Post-Acute Care Work Group

Submitted to:

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EXECUTIVE SUMMARY

New Jersey Medicare beneficiaries were in acute-care hospitals nearly 30 percent longer, on average, than their counterparts in all states but one in 1998. Excessively long Medicare stays are costly to hospitals. Thus, finding ways to appropriately discharge Medicare patients earlier in the continuum from acute- to post-acute care is an important step toward improving the financial performance of New Jersey hospitals. The Post Acute Care Work Group examined ways in which New Jersey's Medicare length of stay (LOS) may be affected by the State's post-acute care delivery system. Where possible, the work group compared characteristics of New Jersey's system with those of four states (Connecticut, Florida, Illinois, and Massachusetts) that have below-average Medicare LOS but are otherwise similar to New Jersey. The work group's findings suggest a number of steps that providers and the State could take to facilitate Medicare beneficiaries' transitions from acute-care hospitals to appropriate post-acute care services.

FINDINGS

New Jersey's average Medicare LOS in acute-care hospitals is excessive. Several factors help explain the State's high Medicare LOS, but none convincingly justify it.

New Jersey Medicare beneficiaries use less Medicare-covered skilled nursing care than do their counterparts in other states. Admission rates to skilled nursing facilities were 33 percent lower in New Jersey than they were in Connecticut and 40 percent lower than they were in Massachusetts. Once admitted to skilled nursing care, Medicare beneficiaries receive fewer days of care in New Jersey than they do in Connecticut or Massachusetts.

New Jersey Medicare beneficiaries use less Medicare-covered home health care than do their counterparts in other states. Relatively few New Jersey Medicare beneficiaries receive Medicare-covered home health services; those who do have relatively few visits. This finding is particularly striking because most New Jerseyans live in metropolitan areas, where high rates of use would be expected. Unfortunately, widespread shortages of nurses and nurse's aides hinder efforts to increase the supply of home health services.

Limits on post-acute care choices may contribute to New Jersey's excessive Medicare LOS. Some patients, who lack family or community support to return home upon hospital discharge but want to avoid nursing home placements, may prolong their acute-care stays for lack of other choices. Expanding consumer choice might positively affect hospital LOS.

The work group was deeply divided as to whether different types of post-acute care facilities serve different populations. National data show that different types of facilities serve Medicare patients in many of the same diagnostic-related groups (DRGs). However, the data do not show whether those patients have similar acuity levels, which some group members believe are better indicators of care needs. Some work group members were concerned that expanding the range of post-acute providers or capacity would reduce the use of already-established providers. Furthermore, expanding services could increase demand for those services, resulting in new cost pressures on payers other than Medicare, including New Jersey Medicaid.

Factors other than post-acute care range and capacity probably contribute to New Jersey's long Medicare LOS.

- While New Jersey hospitals are operating effectively on some measures (relative to hospitals in other states), other measures suggest relatively weaker management. As some hospitals continue to adjust to the more market-driven environment that succeeded hospital rate-setting, their Medicare LOS might drop somewhat.

- Managed care penetration is lower in New Jersey than it is in Connecticut or Massachusetts. Hospitals in areas of high managed care penetration tend to have shorter Medicare LOS, a likely spillover effect.

- The predominance of solo and two-person physician practices presents barriers to physician education and incentives affecting Medicare LOS. Relative to hospitals in other states, New Jersey hospitals report fewer contractual arrangements that may align the incentives of hospitals and physicians.

- Procedures for determining Medicaid eligibility when Medicare patients are discharged to long-term nursing care may contribute to the State's excessive Medicare LOS. Although only about 11 percent of Medicare patients are eligible for Medicaid, delayed determinations can potentially add days to a Medicare LOS, increasing the overall average.

- The State's regulatory environment, which intentionally acts as a brake to rapid change in the post-acute care delivery system, may contribute to the Medicare LOS problem. New Jersey's Certificate of Need (CN) and licensure requirements are designed to assure quality and equitable access to services. The February 2000 report of the Certificate of Need Study Commission affirmed these values and recommended retaining CN for various services, including all post-acute care services. However, as long as State law restricts entry into the post-acute care market, growth and change will likely lag behind changes in market conditions. The public process to permit growth and change also occasions considerable debate, adding to the lag time.

RECOMMENDATIONS

Promote growth in the supply of nurses and nurse's aides. The lack of nurses and certified nurse's aides in New Jersey limits many post-acute care providers' ability to provide appropriate care. If the supply of such caregivers increased, it would be easier to reduce Medicare LOS by increasing beneficiaries' use of post-acute care services.

Improve discharge-planning processes. Physicians, patients and their families, rely on hospital discharge planners to help them make decisions about post-acute care. Thus, hospitals are urged to make effective discharge-planning processes an institutional priority, if it is not one already.

Promote Medicare home health services more aggressively. Medicare beneficiaries' use of home health care is relatively low in New Jersey. The work group recommends that home health agencies more actively educate hospital physicians and discharge planners about the appropriate uses of home health care for post-acute patients.

Support efforts to align the financial incentives of hospitals and physicians. Efforts to reduce New Jersey's Medicare LOS would be more effective if Medicare reimbursement policies offered similar incentives to physicians and hospitals to manage inpatient LOS. As a first step, efforts should focus on working with the Medicare program on a demonstration to estimate the impact of hospital-sponsored, LOS-related financial incentives for physicians.

Permit new types of post-acute care providers and facilitate greater choice for consumers. Allowing certificates of need and licenses for long-term acute care hospitals (LTACs), specialty hospitals that exist in many states but not in New Jersey, could help reduce Medicare LOS by meeting the post-acute care needs of patients with complex medical conditions. In addition, the market for Medicare-certified home health agencies should be evaluated. Increasing the number of agencies and fostering a higher level of competition could have beneficial results. Similarly, reducing restrictions on the types of patients providers can serve may also result in earlier discharges.

Enhance coordination between the State and hospitals when both parties are involved in the discharge process. New Jersey might shorten some Medicare patients' hospital stays if the State and hospitals worked more closely to assure timely discharges, particularly when Medicare beneficiaries apply for Medicaid-covered long-term care.

I. INTRODUCTION

A. PROBLEM STATEMENT

During a time of financial profitability for U.S. acute-care hospitals, New Jersey acute-care hospitals have been losing money. In 1998, the median operating profit margin for U.S. hospitals was 2.77 percent, while in New Jersey, it was negative 0.61 percent (Health Care Investment Analysts, Inc. 2000).[1] More recent analysis shows that the financial performance of New Jersey hospitals continued to decline the following year. New Jersey hospitals' mean operating margin fell from negative 1.6 percent in 1998 to negative 2.3 percent in 1999, making 1999 the worst year, financially, for New Jersey hospitals in two decades (*American Health Line* 2000). Many stakeholders—most important, New Jersey hospital patients—stand to lose if the state's healthcare system is unstable.

A 1999 report prepared by the Advisory Commission on Hospitals (the Commission) for New Jersey's Commissioner of Health and Senior Services identified several factors that contributed to the deteriorating financial performance of hospitals in the state. The commission made comprehensive recommendations for actions to be taken by all parties, including the State. During 2000 the State followed through on a wide range of actions, including introduction of the FamilyCare program with presumptive eligibility for eligible hospital patients, increased funding for charity care subsidies, and the creation of a hospital asset transformation program to facilitate reduction in excess capacity. In addition, State agencies worked with the Medicare Fiscal Intermediary and hospitals to assist hospitals in claiming substantial one-time retroactive Medicare disproportionate share (DSH) funds for care provided to the uninsured. Finally, it

[1]"Operating profit margin" and other terms used in this report are defined in the glossary that begins on page 41.

should be noted that one acute care hospital transitioned to other uses, and three more were approved to cease acute care operations. These measures should have a positive effect on the industry's financial performance.

The Commission also identified several legacy items which required further study before recommendations could be made. The Advisory Commission, citing a PriceWaterhouseCoopers report commissioned by the New Jersey Health Care Facilities Financing Authority in 1999, noted that one major contributing factor to the poor financial performance of New Jersey hospitals was the higher than average hospital length of stay (LOS) for New Jersey Medicare patients (PricewaterhouseCoopers 1999). More specifically, the Commission found that, in 1997, the average Medicare LOS was 1.6 days longer in New Jersey than it was nationally. The report estimated that New Jersey hospitals incur very substantial additional costs as a result of those excess patient days.

Commission members, particularly those representing hospitals, seeking to explain the source of New Jersey's longer Medicare LOS, hypothesized that characteristics of New Jersey's post-acute care delivery system were contributing to its excessive Medicare LOS. In particular, they theorized that because patients could not access post-acute care services, these patients remained longer in the acute-care setting. The Commission, which did not have representation from the post-acute industry, was unable to examine this hypothesis in any depth and recommended convening a separate group that would have the different elements of this industry well represented. Accordingly, the New Jersey Department of Health and Seniors Services convened, in June 2000, the New Jersey Post-Acute Care Work Group to investigate this hypothesis.

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The work group is chaired by Marilyn Dahl, the Department's Senior Assistant Commissioner for Health Planning and Regulation. It consists of representatives of approximately 25 New Jersey organizations and associations involved in providing, financing, planning, and evaluating acute and post-acute care services in New Jersey, as well as other state agencies. (Appendix A includes a complete list of work group members and their organizational affiliations.)

This report is the culmination of the work group's investigation and consideration of the possible relationship between New Jersey's post-acute care delivery system and the average Medicare LOS in the State's hospitals. As indicated above, the report's underlying goal has been to contribute to improvements in New Jersey hospitals' financial performance by bringing hospitals' Medicare LOS more in line with national averages. To this end, the work group was charged with five main objectives:

- Determine whether there are barriers to using available post-acute care services
- Assess whether the State has appropriate post-acute care alternatives and capacity
- Identify factors that limit the availability of or access to post-acute care services
- Determine how New Jersey compares with the nation as a whole, with states in the region, and with states presumed to be confronting a similar Medicare population or to have introduced innovative post-acute care initiatives
- Recommend ways to overcome identified barriers (if any) to reducing Medicare LOS

Although the work group's focus was the relationship between Medicare hospital LOS and the post-acute care system in New Jersey, members were conscious throughout the process that their recommendations must be consistent with the overarching goals of maintaining and/or improving access to and quality of post-acute care services for New Jersey's senior citizens.

To help the work group meet its objectives, individual members were expected to provide relevant quantitative and qualitative data, and other evidence, from their areas of expertise. In addition, the NJHCFFA retained Mathematica Policy Research, Inc., an independent public

policy research firm, to assist the work group in data collection and analysis and in preparing this report.

B. METHODOLOGICAL APPROACH

The work group's main research question about Medicare LOS is not "What makes one patient different from another patient?" but rather "What makes New Jersey different from other states?" By using the *state* as the primary unit of analysis, the work group avoids examining many of the innumerable factors that may explain the hospital LOS for any one Medicare beneficiary, while failing to explain why Medicare stays are longer *in New Jersey*, on average, than in 48 other states.[2,3] Such a state-level approach is more likely than an individual-level approach to lead to policy-oriented strategies for lowering the Medicare LOS.

The work group approached its main research question in three ways: (1) it considered five preliminary, or working, hypotheses and assessed evidence for and against each hypothesis; (2) it compared New Jersey's post-acute care system to those of other, selected states; and (3) it examined some in-state trends among New Jersey hospitals. Each of these three approaches is described below in greater detail.

1. Working Hypotheses

Early in the work group's efforts, five hypotheses about New Jersey's Medicare LOS and its possible relationship to post-acute care in the state were introduced. The hypotheses were intended to facilitate group discussion, rather than to anticipate findings and conclusions. The

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[2]An example helps illustrate this distinction. Factors such as family preferences about a patient's discharge destination, for instance, undeniably affect hospital LOS. Such preferences vary by family, however, more than they do by state. Thus, such factors are not likely to affect average Medicare LOS from state to state, but only from patient to patient. Across all states, the effects of family preferences and similar factors probably "average out."

[3]New Jersey ranks 49th among states in average Medicare LOS. New York ranks 50th.

work group discussed each hypothesis in turn during an early meeting, returning to them later as evidence and new ideas mounted. The hypotheses were:

- New Jersey's Medicare LOS stay should not exceed the national average.
- New Jersey has sufficient capacity and distribution of post-acute care providers to accommodate reductions in Medicare LOS.
- Different types of post-acute care providers serve different populations.
- Noncapacity issues account for New Jersey's general acute-care hospitals' excess Medicare LOS.
- Medicare patients with excess LOS require discharge to post-acute care.

2. State Comparisons

Using available data, the work group considered evidence for and against the above hypotheses by comparing New Jersey with four states that have shorter case-mix adjusted Medicare LOS. The comparison states—Connecticut, Florida, Illinois, and Massachusetts—were chosen for their likeness to New Jersey on percent elderly, income and unemployment levels, percent non-English speaking, percent without health insurance, and percent of state expenditures on health care and hospitals (See Appendix B for state characteristics). The work group purposely avoided comparing New Jersey to states with vastly different approaches to health care, such as California, which has a long history of managed care and extensive managed care penetration.[4]

3. In-State Trends

Using hospital-level inpatient billing data (known as Uniform Billing or UB data), the work group briefly examined possible relationships between case-mix adjusted Medicare LOS and (1) patients' discharge destinations; and (2) hospital characteristics such as urban/rural,

[4]California's HMO penetration rate was 49 percent in 1998, compared with 29 percent in New Jersey (AARP 1999).

teaching/nonteaching, the income level of discharged patients, and the presence of a gerontologist on a hospital's staff. In examining such in-state data, the work group's objective was to determine whether New Jersey's Medicare LOS problem is statewide and pervasive, or whether it is driven by hospitals in different parts of the state or with certain defining characteristics. When not compared to data from states with higher or lower case-mix adjusted Medicare LOS, however, it is difficult to interpret how these characteristics may contribute to New Jersey's Medicare LOS problem.[5] For example, if we find that urban hospitals have longer lengths of stay, on average, one could conclude that New Jersey's urban areas are the source of the problem. Alternatively, it could be that urban areas across the country have longer lengths of stay than rural areas, which would fail to explain why New Jersey's LOS is longer than other states' LOS.

The next chapter of this report presents the results of the approaches just described. Findings are presented according to the hypotheses they support or refute.

(continued)

[5]For discharge destination data, in particular, another limitation must be noted. Place-of-discharge data are seldom of high quality on inpatient bills. Inpatient bills are completed by hospital financial staff for the purpose of obtaining payment from insurance sources. Because "discharge destination" does not affect reimbursement, hospital financial staff have little incentive to record it accurately. In addition, the patient's decision to use post-acute care services is sometimes made after he or she leaves the hospital, and thus cannot be recorded on the bill records. As a result, routine discharges (those in which no post-acute care is required) tend to be overreported. (Information provided by consultant.)

II. WORK GROUP FINDINGS

Throughout its meetings and research, the work group confronted the fact that discharging Medicare patients from acute-care hospitals is a complex process. Moreover, it is a process prone to a wide range of potential complications, including many that are not under the control of the health care system. The findings presented in this chapter suggest a number of steps that planners, regulators, and providers could take to contribute to a reduction of the state's Medicare LOS.

A. EXTENT OF NEW JERSEY'S MEDICARE LOS PROBLEM

In 1998, New Jersey's average, case-mix adjusted Medicare LOS (5.3 days) was 29 percent longer than the national average (4.1 days) (New Jersey Hospital Association 1998). Moreover, the problem is pervasive. Ninety-four percent of New Jersey acute-care hospitals (78 out of 83 facilities) had Medicare LOS at or above the national average of 4.1 days in 1998 (New Jersey Department of Health and Senior Services 2000).

1. Working Hypothesis Number 1. New Jersey's Medicare LOS should not exceed the national average.

The above caveat about the complexity of hospital discharge processes notwithstanding, the work group agreed—both at the outset and at the conclusion of its work—that New Jersey's average Medicare LOS should not exceed that of the nation. The work group identified several factors that help *explain* the state's high Medicare LOS, but none that convincingly *justify* it. Though an exceptional state in many respects, New Jersey is not so different from all others, in the work group's opinion, that its acute-care hospitals should experience excessively long Medicare patient stays to the detriment of their financial viability.

The Medicare LOS of the work group's comparison states support this view. As Table II.1 shows, hospitals in Connecticut, Florida, Illinois, and Massachusetts have an average Medicare LOS below that of hospitals in the rest of the country, on average, and well below that of hospitals in New Jersey. As noted earlier, New Jersey and the four comparison states have a number of demographic, economic, and health insurance status characteristics in common (See Appendix B). As a result, broad state population characteristics do not help explain the variation in Medicare LOS between New Jersey and the comparison states.

Through an examination of in-state and national hospital data, the work group found that, although Medicare LOS does vary from hospital to hospital throughout New Jersey, the variation mirrors national trends. Thus, such variation does not help explain New Jersey's poor Medicare LOS ranking. The work group found, for example, that New Jersey hospitals that serve relatively large proportions of low-income patients have longer Medicare LOS than do hospitals that serve more high-income patients. But, in the United States as a whole, disproportionate-share hospitals (those that serve areas with high concentrations of Medicaid enrollees) have longer Medicare LOS than all hospitals (see Table II.2).[6] Likewise, New Jersey's major teaching

TABLE II.1

AVERAGE MEDICARE LOS, CASE-MIX ADJUSTED, 1998

State	Case-Mix Adjusted LOS (in Days)
New Jersey	5.3
Connecticut	3.7
Florida	3.7
Illinois	4.0
Massachusetts	3.9
U.S.	4.1

TABLE II.2

AVERAGE LOS CASE-MIX ADJUSTED, BY SELECTED HOSPITAL CHARACTERISTICS FOR NEW JERSEY AND THE U.S.

[6]Though this is an admittedly imperfect comparison—measuring a hospital by its disproportionate-share status is not exactly the same as measuring the income brackets of its patients—it adequately illustrates that relationships between LOS and local economic indicators run in the same direction in New Jersey and nationally.

	New Jersey Hospitals	U.S. Hospitals
All Hospitals		3.16
Disproportionate Share		3.40
Income Levels		
High	5.51	
Medium	6.32	
Low	6.37	
Teaching Hospitals		
Major	4.94	3.05
Minor	5.78	3.08
Non-teaching	6.16	3.20
Location[a]		
Urban	5.85	3.10
Rural	5.66	3.23
Managed Care		
High		2.76
Medium		3.17
Low		3.26

NOTE: Medians were calculated to make the New Jersey data as comparable as possible to national data.

[a]This comparison is not technically valid, as all of New Jersey's population resided in a Metropolitan Statistical Area in 1998.

hospitals have, on average, shorter case-mix adjusted Medicare LOS than minor teaching and nonteaching counterparts in the State, just as major teaching hospitals throughout the country have shorter case-mix LOS than nonteaching hospitals. With regard to other hospital characteristics it examined, the work group did not observe clear relationships between Medicare LOS and the presence of a gerontologist on a hospital's staff, or between Medicare LOS and hospital occupancy rates. (These comparisons were made with New Jersey data only, as national data were not readily available.)

B. WHAT IS CONTRIBUTING TO THE PROBLEM?

1. Working Hypothesis Number 2: Does New Jersey have sufficient capacity and distribution of post-acute care to accommodate reductions in the hospital LOS for Medicare patients?

The committee investigated four different types of post-acute services for Medicare beneficiaries: skilled nursing care, comprehensive rehabilitative care, custodial care in a nursing home and home health care.

- Skilled nursing care is a Medicare-reimbursed service provided to beneficiaries who had at least a three-day hospital stay and had skilled care needs upon hospital discharge; about nine percent of all Medicare patients nationally are discharged to a skilled nursing facility (Gage 1999). Medicare-reimbursed skilled nursing care is provided in a Medicare-certified skilled nursing facility, but not all beds within that facility have to be certified for skilled nursing care. Furthermore, beds that are certified for skilled nursing care can be occupied by patients with different levels of care needs, whose care is reimbursed by other sources.

- Comprehensive rehabilitative care is an intensive, multidisciplinary program of inpatient care designed to restore a disabled person to the highest attainable level of functioning. This care is also reimbursed by Medicare, but nationwide less than 1 percent of Medicare patients are discharged to a rehabilitation facility. In New Jersey, a patient is screened before admission to comprehensive rehabilitation to ensure that (1) his/her treatment will result in increased functional abilities and an improved quality of life, and (2) the patient can tolerate at least three hours of therapy per day upon admission.

- Long-term custodial nursing home care is generally not considered to be a post-acute care service and is not reimbursed by Medicare. However, a patient may be discharged to a long-term care facility for custodial care if (1) the patient entered the hospital from the long-term care facility; or (2) the patient will need long-term care after post-acute care, the facility can provide the necessary care, and the patient, family, and health care provider believe this is the best solution. While Medicare does not cover long-term custodial care in a nursing home, if the patient meets the requirements, the Medicaid program pays for the service.

- Home health care is a Medicare-reimbursed service provided to beneficiaries who are both homebound and have skilled care needs. Approximately 20 percent of Medicare patients nationwide are discharged to home health.

a. Skilled Nursing Care

New Jersey has a substantial nursing home industry. Statewide, 356 licensed, long-term care facilities operate 54,628 beds—for an average of just over 150 beds per facility. The

majority of the beds are both Medicare and Medicaid certified—only 15 facilities are not. In addition, there are 7 hospital-based long-term care units with 1,226 beds that are also certified for Medicare and Medicaid.

The work group found that, in 1997, New Jersey had the same number of Medicare-certified skilled nursing beds per beneficiary (16.6) as found nationally, but had fewer skilled nursing beds than did two of its comparison states, Connecticut and Massachusetts (see Table II.3). New Jersey beneficiaries use less skilled care—New Jersey had 44 Medicare-covered admissions to skilled nursing facilities per 1,000 beneficiaries, compared with a national average of 50 admissions per 1,000 beneficiaries—a 12 percent difference. Furthermore, New Jersey had a lower admission rate than any of the four comparison states, and substantially lower than Connecticut (33 percent lower) and Massachusetts (40 percent). Once admitted, New Jersey beneficiaries stay in care for one day less than the national average (23 versus 24 days) and less than beneficiaries in either Connecticut or Massachusetts.

TABLE II.3

MEDICARE-CERTIFIED SKILLED NURSING BEDS AND USE, BY STATE

	NJ	CT	FL	IL	MA	U.S.
Skilled Nursing Facility Beds per 1,000 Enrollees, 1997	16.6	40.8	9.3	10.4	25.9	16.6
Covered Admissions to Skilled Nursing Facilities, per 1,000 Enrollees, 1998	44	66	55	66	74	50
Covered Days per Admission, 1998	23	34	23	22	26	24

b. Comprehensive Rehabilitation Services

The work group considered whether New Jersey had more comprehensive rehabilitation hospital beds, and, if so, whether this was the reason beneficiaries received less skilled nursing care. However, as Table II.4 shows, New Jersey had fewer short-term rehabilitation beds than found nationally or in any of the comparison states.[7] Since 1995 the State has approved the addition of substantial numbers of comprehensive rehabilitation beds that would increase the number of licensed beds to 532, more than 50 percent over the existing 316 beds. However, 216 of these approved beds have not yet been built and licensed, and are not, therefore, reflected in the comparisons with the other states.

TABLE II.4

SUPPLY OF SHORT-TERM REHABILITATION SERVICES, BY STATE, 1997

	NJ	CT	FL	MA	U.S.
Number of Rehabilitation Care Beds Set Up, per 10,000 Persons	2.0	5.5	3.5	9.4	7.2

Source: Area Resource File.

c. Long-Term Custodial Care

Turning to long-term custodial care services, which are *not* covered by Medicare, the work group concluded that New Jersey has an adequate number of beds. New Jersey had fewer licensed long-term care beds per elderly resident in 1998 than either the nation or three of the comparison states (see Table II.5), but the number of licensed long-term care beds in Connecticut and Massachusetts is decreasing, suggesting that these states may be overbedded.

[7]This data is from the American Hospital Association Survey, and is likely to be under-reported. Short-term rehabilitation is provided in hospitals where the average length of stay is less than 30 days.

TABLE II.5

SUPPLY OF LICENSED NURSING FACILITIES AND BEDS, 1998
(Unless a Different Date Is Noted)

	High Medicare LOS	Low Medicare LOS				
	NJ	CT	FL	IL	MA	U.S.
Licensed Nursing Facilities						
Facilities per 1,000 age 65 and Over	.32	.68	.26	.54	.12	NA
Licensed Nursing beds per 1,000 age 65 and over	45	68	30	72	64	53
Percent change in number of nursing beds, 1997-1998	0.36	-0.20	1.57	1.07	-5.92	NA
Other Facilities[a]						
Facilities per 1,000 age 65 and over	0.40	0.24	0.89	0.03	0.30	NA
Beds per 1,000 age 65 and over	17	7	25	5	15	26
Percent change in number of beds, 1997-1998	14.84[b]	-0.32	3.39	0.51	-0.06	NA

SOURCES: HCFA 1997; HCFA 1998a; American Health Care Association 1997; Harrington et al. 1999.

[a]In addition to nursing facilities, states provide different types and combinations of residential care for adults and the aged. New Jersey has residential health care facilities, boarding homes, and comprehensive personal care and assisted-living facilities. New York has adult homes, enriched housing, family-type homes, public homes, and assisted-living facilities. Connecticut has homes for the aged. Florida has assisted-living facilities and adult family care homes. Illinois has sheltered-care facilities. Massachusetts has rest homes and assisted-living facilities.

[b]Although the number of residential health care facilities and boarding homes in New Jersey decreased between 1997 and 1998, the number of assisted-living facilities increased from 21 to 50. The overall increase in the state's residential beds is driven by assisted-living beds, which increased from 1,633 beds in 1997 to 4,303 in 1998.

NA = not available.

An alternative to licensed long-term care beds that has become increasingly popular in recent years is assisted living facilities. For individuals who do not have high-level nursing care needs and/or are not eligible for Medicaid coverage of long-term custodial care, assisted living facilities can be a less expensive alternative to licensed long-term care facilities. In New Jersey, at least 20 percent of an assisted living facility's residents are required to have nursing home-level needs and thus assisted living beds may partially substitute for licensed long-term care beds.[8] The data showed that, while New Jersey has fewer residential beds than the national average, it has more than three of the four comparison states, including Connecticut and Massachusetts.[9] This finding further supports the work group's conclusion that the State has an adequate number of licensed nursing beds.

[8]This requirement must be met within 36 months of licensure.

[9]Residential facilities include assisted living facilities, residential health care facilities, and boarding homes.

The work group believed that, even though New Jersey's use of skilled nursing facilities may be lower than in comparison states, it has enough skilled nursing beds to meet residents' needs. Members indicated that there is plenty of competition both within and across provider types for patients discharged from the hospital. Furthermore, recent changes in the marketplace due to the implementation of the Balanced Budget Act of 1997 (BBA), the growth of assisted living facilities in New Jersey since 1998, and the implementation of the State's Community Choice initiatives to support seniors' remaining in their homes and communities have reduced nursing home occupancy rates in ways the 1998 data could not reflect.

d. Home Health Care

New Jersey has two different types of home care providers. The first type of provider, a Medicare-certified home health agency, is licensed by the Department of Health and Senior Services. These agencies provide preventive, rehabilitative, and therapeutic services to patients in the patient's home. These services can be paid by the Medicare or Medicaid programs, or by private sources. The number of these agencies is limited by the State's Certificate of Need requirements. Currently, there are 55 agencies.

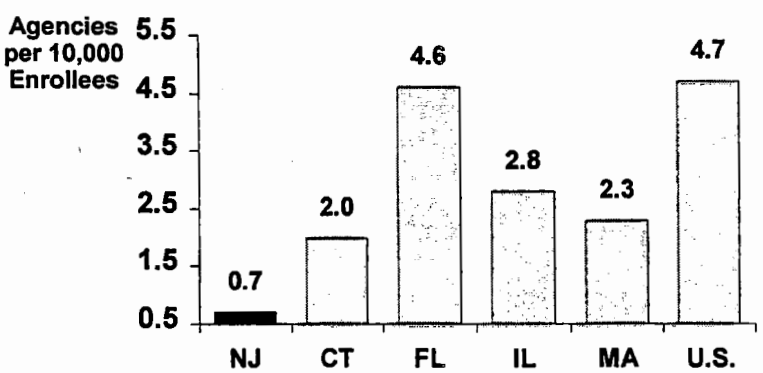
The second type of home care provider is registered by the Division of Consumer Affairs (in the Department of Law and Public Safety) as a "health care service firm" and provides any service meant to maintain or restore physical or mental health, or any health-related service for which licensure is required. These services are paid for privately—either through private insurance or self-pay. A health care service firm may provide Medicare or Medicaid reimbursed services only if a Medicare-certified agency subcontracts with them, or through special waiver programs. Currently, 238 registered firms provide home care from 321 operating sites.

Since the Medicare-certified agencies are presumed to provide the majority of the post-acute care to recently discharged Medicare patients, the work group focused on them. The work group found that, in 1998, New Jersey had far fewer home health agencies per beneficiary than found

nationally or in any of the comparison states. New Jersey had less than one home health agency per 10,000 beneficiaries—85 percent less than the number found nationally and threefold less than the number of agencies in Connecticut and Massachusetts (See Figure II.1). Some members of the work group pointed out that the number of agencies is not a good supply indicator since agency size varies significantly, and New Jersey agencies are larger than average. However, members did not dispute the finding that Medicare beneficiaries in New Jersey receive less home health care. In 1996, New Jersey averaged 89 home health users per 1,000 beneficiaries—compared with a national average of 102 users per 1,000 beneficiaries, and averages in Connecticut and Massachusetts of 119 and 142 users per 1,000 Medicare beneficiaries, respectively (see Table II.6). New Jersey's lower use rate is particularly striking, since New Jersey residents primarily live in metropolitan areas, and home health is generally used more in urban than in rural areas. Furthermore, among those who were receiving services, New Jersey beneficiaries received fewer visits.[10]

FIGURE II.1

NUMBER OF MEDICARE-CERTIFIED HOME HEALTH AGENCIES PER BENEFICIARY, 1998



[10]Some work group members suggested that the lower number of visits for those receiving care is not necessarily a sign that patients are receiving too few visits. It could be that New Jersey agencies are relatively more efficient, achieving the same health outcome with fewer visits. However, the work group did not review any evidence that could be used either to support or refute this view.

TABLE II.6

MEDICARE-REIMBURSED HOME HEALTH USE, BY STATE

	NJ	CT	FL	IL	MA	U.S.
Home Health Users per 1,000 Beneficiaries						
1996	89	119	121	100	142	102
1999	84	106	92	78	115	80
Home Health Visits per 1,000 Users						
1996	44	55	79	54	85	73
1999	31	40	43	32	46	41

In 1999, Congress made significant changes in the Medicare home health program that decreased utilization across the country. Other areas of the country reduced the number of home health recipients more than New Jersey did; thus, the number of users per 1,000 beneficiaries was slightly higher in New Jersey than nationwide (84 users in New Jersey, compared with 80 users nationwide). However, the number of visits per user was still much lower in New Jersey than in the rest of the country (31 versus 41). Furthermore, compared with Connecticut and Massachusetts, many fewer New Jersey beneficiaries are receiving home health services (84 users out of 1,000 beneficiaries in New Jersey, compared with 106 in Connecticut and 115 in Massachusetts).

The work group concurred that the reason for the small number of agencies is that Medicare certification is available only to agencies licensed by the State health department and in New Jersey home health agencies are subject to Certificate of Need (CN) requirements. The group also agreed this could be contributing to the relatively low use of Medicare home health care services. The work group noted that the February 2000 report of the Certificate of Need Study Commission recommended that the state continue to require CN for home health agencies, in part because of the recent changes in Medicare payments that were anticipated to restrict home health care even further. However, unlike the CN Study Commission, this work group has had the opportunity to observe what happened to home health utilization following the payment

changes mandated by the BBA. It found that, even though utilization in other states fell during the post-BBA period, it appears that New Jersey residents are still receiving less Medicare home health services than beneficiaries in other states.

Finally, the work group concurred that a shortage of nurses and certified nurse's aides is the key restriction to increasing supply in the present economy. Currently, home health providers indicate that they are constrained from providing more services because they cannot hire the necessary staff. Work group members representing nursing homes and hospitals echoed that they, too, are constrained by a shortage of these personnel.

2. Working Hypothesis Number 3: Do different types of post-acute care facilities serve different populations?

The work group was deeply divided on whether post-acute care facilities serve different populations. As a result, the group was also divided as to whether various stakeholders would benefit from policies that would permit the introduction of new types of post-acute care providers (such as long-term care hospitals) or relax restrictions on existing providers. The work group's discussion of both issues is summarized below.

Representatives of current post-acute care providers indicated that they were competing with each other for some types of patients, and national data showed that there is considerable overlap in Medicare Diagnostic Related Groups (DRGs) treated across skilled nursing facilities, rehabilitation facilities, and long-term acute-care hospitals (LTACs). (See Table II.7.) Some members of the work group, however, pointed out that DRGs fail to capture the acuity of patients and mask significant differences in the characteristics of patients treated in each type of facility. Furthermore, in interviews, LTAC officials in other states expressed their belief that LTACs attract very different types of patients than rehabilitation hospitals or skilled nursing facilities. Studies by the Health Care Financing Administration found that patients in long-term acute care hospitals were more functionally impaired than patients in rehabilitation hospitals or skilled

TABLE II.7

THE 10 MOST COMMON DRGs AT LONG TERM ACUTE CARE HOSPITALS ALSO PREVAIL IN OTHER POST-ACUTE CARE SETTINGS

Leading LTAC DRGs	DRG Descriptions	Also Leading in SNFs, HHAs, and IRFs?
483	Tracheostomy Except For Face, Mouth & Neck Diagnoses	
014	Specific Cerebrovascular Disorders Except Tia	SNF, HHA, IRF
209	Major Joint & Limb Reattachment Procedures of Lower Extremity	SNF, HHA, IRF
475	Respiratory System Diagnosis with Ventilator Support	
079	Respiratory Infections & Inflammations Age >17 W CC	SNF
210	Hip & Femur Procedures Except Major Joint Age >17 W CC	SNF, IRF
088	Chronic Obstructive Pulmonary Disease	SNF, HHA
127	Heart Failure & Shock	SNF, HHA, IRF
089	Simple Pneumonia & Pleurisy Age >17 W CC	SNF, HHA
416	Septicemia Age >17	SNF

SOURCE: Medicare Payment Advisory Commission (MedPAC). "Report to the Congress: Context for a Changing Medicare Program." Washington, DC: MedPAC, June 1998.

NOTE: Cases where the patient died or was transferred to another acute-care hospital were excluded from MedPAC's determination of the most prevalent DRGs. DRGs are listed in descending order by number of discharges.

DRG = diagnosis related group; LTAC = long-term acute care hospital; CC = complication and/or comorbidity; SNF = skilled nursing facility; HHA = home health agency; IRF = inpatient rehabilitation facility.

nursing facilities. Furthermore, LTACs tend to have more cases of patients with specific conditions such as diabetes, respiratory conditions, and renal failure. However, they also found a number of health status similarities among the patients in different facilities (*Federal Register* 2000). On the other hand, other members of the work group indicated that, while some differences in patient characteristics not captured by the DRG system certainly exist, some overlap also certainly exists. National policymakers are also investigating what they perceive to be overlaps in care (Korbin et al. 1999). They are concerned that Medicare differential payment and coverage policies for post-acute providers may encourage admissions to more costly settings than is necessary.

Some members representing post-acute care providers expressed considerable concern that expanding the capacity of usage of one type of post-acute care provider would come at the expense of reduced usage of other providers. Work group members generally agreed, however,

that limited, incremental increases in capacity could be accommodated without significantly harming existing post-acute providers. A large increase in capacity of the post-acute care system, however, would likely result in financial harm to existing providers. Work group members suggested that, if the State chooses to expand post-acute services, it must do so with caution and ongoing evaluation of the positive and negative impacts on existing providers, consumers, and health care costs, including costs to the State Medicaid program. A small minority of members argued that the state should eliminate Certificate of Need (CN) regulations for home health, which would allow unlimited expansion of this service.

The work group also discussed whether limits on the types of post-acute care services available to consumers may contribute to the problem of excessive LOS in acute-care hospitals. The underlying issue is that although post-acute providers may be available to care for patients, some patients prefer to remain in the hospital because they do not feel the available choices meet their needs. If these patients were given other choices, they might not resist leaving the hospital sooner. For example, New Jersey does not have LTACs. Access to hospital-based subacute care is limited by New Jersey's regulations regarding LOS and diagnostic exclusions. Likewise, admission to comprehensive rehabilitative hospitals is limited by stringent criteria for admission to rehabilitation hospitals. It is possible that some patients who do not have the community or family support to return to their homes may fear nursing home placements to such an extent that they resist efforts to discharge them on a timely basis due to lack of other choices. Having more alternatives might alleviate this problem and help reduce the LOS for Medicare patients.[11]

Despite the general agreement that more post acute choices had the *potential* to lower LOS, the work group members were skeptical about whether such a solution would actually be implemented effectively. They agreed that additional choice would certainly not add to the

[11]More effective discharge planning could also help alleviate this problem.

problem, but whether it would effectively decrease hospital LOS would depend on how well the new service was implemented at the local level. The work group mentioned that the following will all play a critical role: (1) whether physicians are convinced that the new choices are optimal for their patients, (2) how hard it is for physicians to monitor their patient's progress in the new types of facilities, and (3) the accessibility of the new facilities for the patients and their families. The work group thought that, if the alternative choices were implemented well at the local level, these choices would have the ability to reduce the length of the acute-care stay.

3. Working Hypothesis Number 4: Noncapacity issues account for New Jersey's general acute-care hospitals' excessive LOS.

The work group concluded that factors other than post-acute care capacity probably contributed to the excessive LOS in New Jersey's general acute-care hospitals. A number of committee members cited issues such as patients' preferences for specific service settings and services funded by third party payers, and the lack of incentives for physicians to discharge patients in as timely a manner as possible, as potential contributing factors to excessive lengths of stay. As noted earlier, however, other states that have much shorter lengths of stay presumably also face these issues; thus, these issues fail to explain why New Jersey hospitals are so different from those in the rest of the country in terms of Medicare LOS.

The work group identified five key factors that may be different in New Jersey that may contribute to the problem: (1) hospital management practices, (2) relatively low managed care penetration, (3) the higher proportion of small physician practices, (4) delays in determining Medicaid eligibility for patients requiring long-term care after hospitalization, and (5) New Jersey's regulatory environment.

a. Hospital Management Practices

The work group hypothesized that the unique history of New Jersey hospitals may have resulted in hospital management that is not as well prepared as its counterparts in other states to

reduce the length of a hospital stay. Management is not as well prepared because until 1992, New Jersey hospitals operated under a State hospital rate-setting system that, some would argue, failed to reward efficient management. Since hospital management in other states has 10 more years of experience working toward reducing the LOS, it seems plausible that they would be more effective.

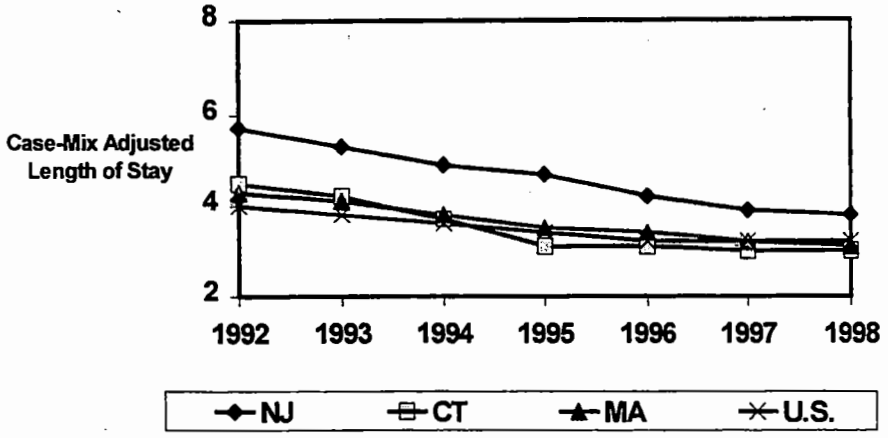
To investigate this issue, the group compared data on a number of different measures to assess whether New Jersey hospital management consistently shows signs of weakness, or if it is only the LOS that is the problem. If New Jersey hospitals perform poorly in a number of different areas, it is likely that weak hospital management is contributing to the excessive Medicare LOS. However, if LOS is the *only* measure where New Jersey hospital performance is comparatively worse, then it is probable that factors other than hospital management are causing the problem.

The work group found that, while New Jersey hospitals are operating effectively on some measures relative to hospitals in the comparison states, other measures suggest relatively weaker performance that might be suggestive of management issues. The data indicated that New Jersey hospitals reduced their Medicare LOS by 33 percent since the end of the rate-setting system in 1992, whereas states that remained on an all-payer system did not (see Figure II.2). However, this 33 percent reduction just allowed them to keep pace with other states whose hospitals were paid under Medicare's prospective payment system. Examining measures of hospital staff size, financial productivity, and pricing strategies, the work group found that the typical New Jersey hospital used fewer staff per adjusted daily census and maintained a strong total asset turnover ratio (suggesting that they were using their assets to produce a healthy amount of revenue). The work group also found that, since the end of 1992, the typical New Jersey hospital had increased its ancillary services price markup to a level similar to those found nationally and in our

comparison states (see Figures II.3, II.4, and II.5). All these numbers suggest that hospital management has adjusted to the Medicare prospective payment system. However, the data also

FIGURE II.2

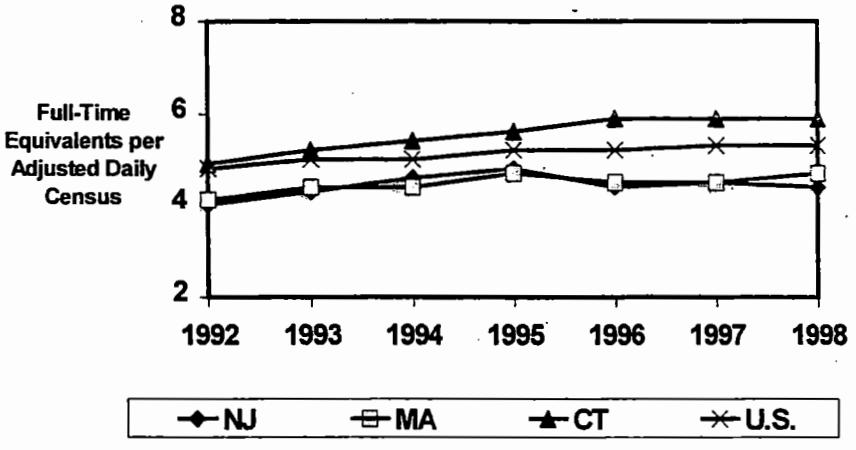
CASE-MIX ADJUSTED LENGTH OF STAY, BY STATE



Source: Health Care Investment Analysts, Inc.

FIGURE II.3

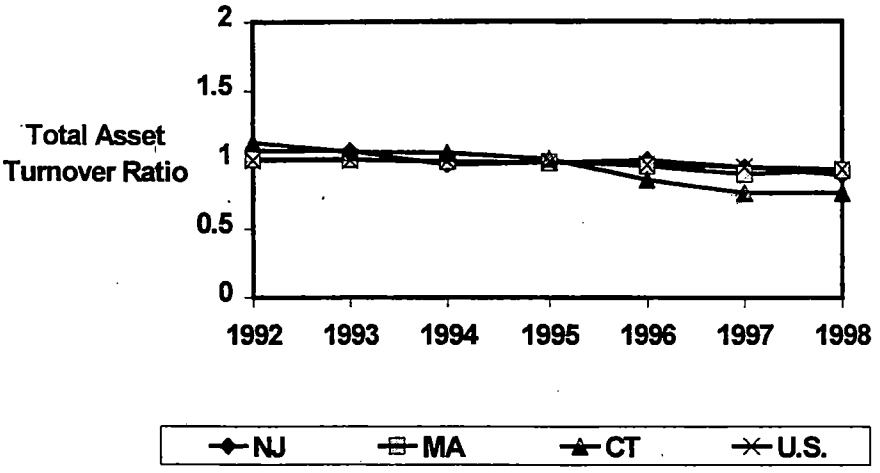
HOSPITAL FULL-TIME-EQUIVALENT STAFF, PER ADJUSTED DAILY CENSUS, BY STATE



Source: Health Care Investment Analysts, Inc.

FIGURE II.4

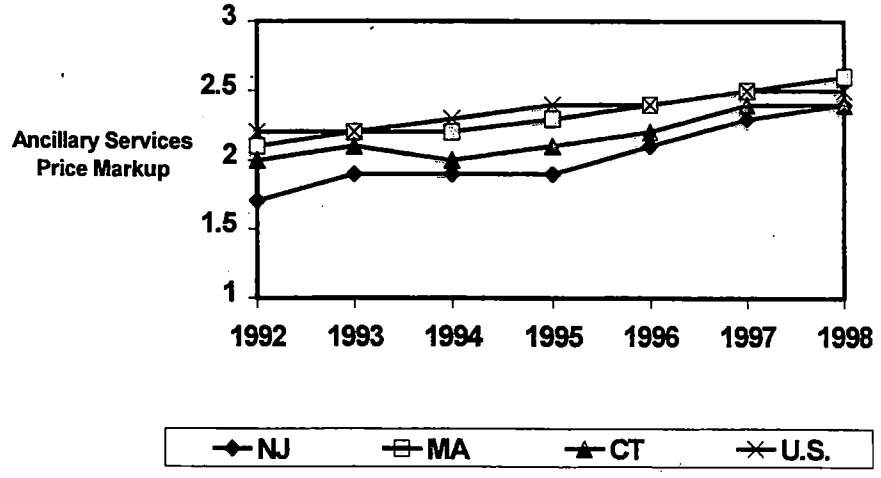
HOSPITALS' TOTAL ASSET TURNOVER RATIO, BY STATE



Source: Health Care Investment Analysts, Inc.

FIGURE II.5

ANCILLARY SERVICES PRICE MARKUP, BY STATE

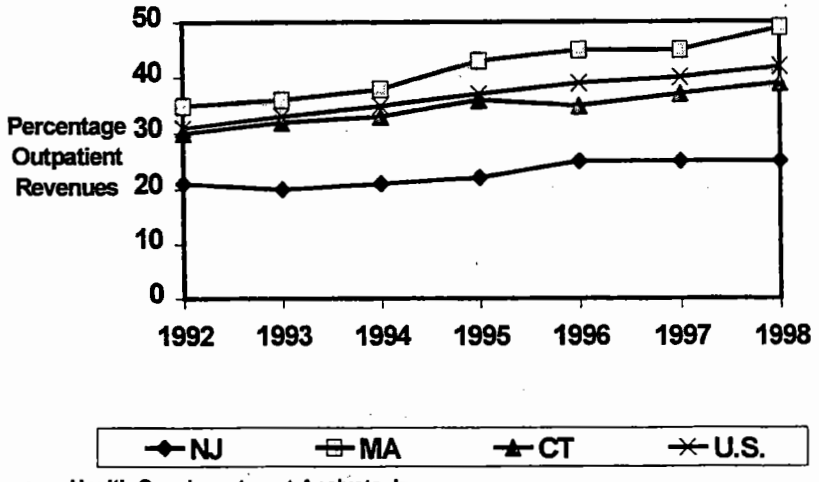


Source: Health Care Investment Analysts, Inc.

shows that New Jersey hospitals may collect their revenues slightly more slowly than hospitals nationwide and in our comparison states. Furthermore, New Jersey hospitals failed to diversify their revenues by increasing the percent of revenues derived from outpatient services—a key method hospitals nationwide have used to ensure that services are available to allow for early discharge (see Figures II.6 and Table II.8). Thus, these latter two measures suggest that hospitals may still need to adjust their operations to the more market-driven environment, and the excessive length of Medicare stay is probably another indication of that phenomenon.

FIGURE II.6

HOSPITAL PERCENTAGE OF OUTPATIENT REVENUES, BY STATE



Source: Health Care Investment Analysts, Inc.

TABLE II.8

HOSPITAL DAYS IN NET ACCOUNTS RECEIVABLE, BY STATE

	1992	1993	1994	1995	1996	1997	1998
NJ	84	68	63	65	68	64	72
CT	69	65	59	63	56	60	62
FL	72	68	63	59	61	63	66
IL	83	79	73	69	64	65	66
MA	68	65	61	57	60	61	60
U.S.	72	69	65	63	62	63	66

Source: HCIA.

One key area the work group indicated that hospitals may need to improve is in developing a well-trained and stable discharge-planning staff. Although the work group has no evidence that suggests New Jersey discharge-planning staffs are weaker relative to other states, discharge planning is a critical step in moving patients from the hospital to the post-acute setting. Many physicians and patients rely on discharge planners to tell them what their post-acute options are for a particular patient. If the discharge-planning staff is constantly in flux, they are unlikely to know who qualifies for particular post-acute services and what post-acute services are available in the local market. As a result, because patients and physicians will not know their options, patients will likely remain in the acute-care setting longer.

b. Managed Care Penetration

Another factor that could contribute to the excess LOS for Medicare patients is the relatively limited growth of Medicare managed care in New Jersey. In 1999, 14.6 percent of New Jersey Medicare beneficiaries were enrolled in Medicare + Choice plans, compared with 16.5 percent nationwide (see Table II.9). Furthermore, the health maintenance organization (HMO) penetration rate for private insurance was 29 percent in New Jersey in 1998—about the same as nationwide, but much lower than the comparison states of Connecticut and Massachusetts, where the rates were 37 percent and 52 percent, respectively. As Table II.2 shows (on page 9), hospitals in areas with high managed care penetration have lower lengths of stay for Medicare patients, and this is likely attributable to spillover effects: in a managed care environment hospitals learn to discharge patients more quickly, and these lessons are then used when caring for patients in Medicare fee-for-service. When few patients are enrolled in managed care, however, there is less opportunity and incentive to learn these lessons, and thus the average length of a hospital stay may be a bit longer.

TABLE II.9

HEALTH INSURANCE STATISTICS

	NJ	CT	FL	IL	MA	U.S.
Insurance Source[a]						
Employer	69.3	74.0	57.1	71	69.7	64.0
Other Private	5.7	5.3	8.0	5.7	6.2	6.7
Medicaid	6.3	6.9	8.9	8.8	9.2	9.3
Other Public	.9	--	3.3	1.3	1.7	2.1
Uninsured	17.9	12.8	22.7	13.1	13.3	17.8
HMO Penetration Rate, 1998	29.0	37.3	31.3	20.5	51.6	29.2
Enrollment in Medicare + Choice, 1999 (as a percent of Medicare beneficiaries)	14.6	21.1	28.6	8.9	23.7	16.5
Medicaid Enrollment in Managed Care Plans, 1998 (as a percent of total Medicaid beneficiaries)	58.3	72.9	60.1	12.9	70.6	54.1

SOURCE: Reforming the Health Care System: State Profiles, 1999.

[a]For under 65 years old.

c. Predominance of Small Physician Practices

Some work group members suggest that another factor that may be contributing to the excessive LOS in New Jersey is that physician practices are organized in such a way that it may be more difficult for physicians to (1) accept financial risk linked to discharge practices, (2) participate more fully in discharge planning, and (3) follow their patients to a variety of post-acute care settings. The work group reviewed evidence indicating that fewer New Jersey physicians are based in group practices than in comparison states, and the groups that do exist are slightly smaller in New Jersey than in comparison states (see Table II.10). As a result, it may be more costly for hospitals, managed care plans, or post-acute care providers to develop risk-based contracts that give the physicians incentives to (appropriately) move patients to lower levels of care more quickly, or to provide these physicians with information about post-acute care options (for example, educating physicians about what home health services can do).

TABLE II.10

PHYSICIAN PRACTICE CHARACTERISTICS, BY STATE

	NJ	CT	FL	IL	MA	U.S.
Percent of Physician Positions in a Group Practice	18	30	29	36	20	32
Average Size of a Group Practice	6.1	7	9.1	10	8.3	9.3

Source: American Medical Association, 1999.

Furthermore, it may be cost-ineffective for solo physicians to follow their patients to a multitude of post-acute care sites.

Finally, the work group noted that Medicare reimbursement policy provides hospitals, but not physicians, incentives to discharge Medicare patients quickly. As a result, it is possible and understandable that physicians might be inclined to keep a patient in the hospital, where the physician can easily visit the patient, rather than discharge to another setting. As mentioned earlier, this is not a challenge peculiar to New Jersey, and efforts have been made elsewhere to address it. Two contractual methods that are sometimes used to align physician and hospital incentives are Open Physician-Hospital Organizations and Integrated Salary Models. However, relative to other states, New Jersey hospitals report fewer such arrangements (see Table II.11). Thus, physician incentives in New Jersey may not be tied to hospital incentives as much as they are in other states.

TABLE II.11

CONTRACTUAL METHODS REPORTED BY HOSPITALS
(PERCENT REPORTING)

	NJ	CT	FL	IL	MA
Independent Practice Associations	40	49	13	24	38
Open Physician Hospital Organizations	19	42	14	26	27
Integrated Salary Model	16	24	15	30	31

SOURCE: Hospital Statistics.

This divergence between hospital and physician incentives has been noted prior to formation of this work group, and the New Jersey Hospital Association has been working with the Health Care Financing Administration to develop a pilot program that will test whether restructuring incentives will have a positive impact on Medicare LOS.

d. Medicaid Eligibility Determinations

The work group considered the possibility that procedures for determining the clinical and financial Medicaid eligibility of Medicare patients seeking long-term nursing home care might be contributing to the State's long Medicare LOS. Through conversations with staff at the Department's Office of Long-Term Care Options and discharge planning staff at one hospital, the work group learned that such procedures may contribute to delayed discharges for a small percentage of patients at some hospitals.[12] While it is unlikely that procedural changes could greatly affect New Jersey's average Medicare LOS (because the procedures apply to approximately 11 percent of the patients), the work group's preliminary exploration suggests that the potential for delayed discharges may exist.[13]

There are distinct clinical- and financial-eligibility components of determining whether Medicare patients seeking long-term nursing home care upon discharge are eligible for Medicaid coverage. Clinical eligibility is determined through a comprehensive pre-admission screening of an individual's care needs. When a hospital discharge planner believes an individual patient warrants a pre-admission screening, he or she submits a clinical screening request to the

[12]Accurately assessing the nature and extent of any delays that may stem from eligibility-determination procedures would require a level of research beyond the scope of the work group, however.

[13]In 1997, HCFA estimated that 134,000 of New Jersey's 1,190,660 Medicare beneficiaries had Medicaid state buy-ins, suggesting that about 11 percent of the beneficiaries are dually eligible for both programs. While the percentage of dual-eligibles is probably higher among beneficiaries discharged from the hospital, it is likely to be a small minority of the population.

Department of Health and Senior Services. Then, within 72 working hours, the Department sends a regional staff nurse to the hospital to administer the clinical screen. Financial eligibility for Medicaid-covered long-term nursing care is determined by New Jersey's County Welfare Agencies (CWAs).[14] CWAs must complete assessments within 30 days of receiving applications for aged individuals, and within 60 days for blind or disabled individuals.

The work group does not have data to indicate whether the above procedures are implemented as intended. Even if one assumes they are implemented as intended, however, the timing of clinical pre-admission screens and financial eligibility determinations could clearly prolong hospital stays beyond what is medically necessary. For example, according to discharge planning staff at one hospital, a Department regional nurse visits that hospital about two times per week, so that many patients wait the full 72 working hours (plus weekend hours, depending on when the screen was requested) for a screen. In addition, according to staff in the Office of Long-Term Care Options, delays may also result from skilled nursing facilities' unwillingness to admit new patients until they have a Medicaid identification number or a guarantee of payment from another source if Medicaid eligibility is denied.[15] In summary, it appears that State procedures that apply to those Medicare beneficiaries who seek Medicaid-covered long-term nursing home care upon discharge from the hospital could, potentially, result in longer-than-necessary hospital stays. Without data on the number of patients that actually apply for Medicaid while in the acute care setting, however, it is impossible to accurately estimate the procedures' impact on Medicare LOS throughout the state. However, given that only 11 percent

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(continued)

[14]The Department provided information about financial eligibility processes; the work group did not interview County Welfare Agency staff in connection with this report.

of the Medicare beneficiaries are on Medicaid, it is likely that a majority of the acute care stays are unaffected by this issue.

e. New Jersey's Tight Regulatory Environment

Finally, the work group noted that New Jersey's tight regulatory environment may contribute to the excessive length of stay. New Jersey's regulatory environment is intentionally designed to brake rapid, unplanned change in the post-acute care delivery system. The comparison states represent a range of regulatory frameworks, and assessing and comparing the regulatory environment would be a difficult and time-consuming task. However, it is the case that current New Jersey licensure regulations do not provide for one type of provider—long term acute care hospitals. Furthermore, CN regulations regulate market entry for nursing homes, comprehensive rehabilitation services, and home health care, and strict regulations govern patient admission to some providers.[16]

Certificate of need and licensure requirements are designed to assure quality and access to health care services. As long as these regulations restrict the entry into the market or the use of different types of services, it is to be expected that both the array of available services and expansion in the number of licensed providers will lag behind changes in market conditions, as the rules will not be able to change as quickly as the market. Furthermore, any proposed changes in rules cause considerable public debate that requires time to resolve.

Many of the issues that deeply divided work group members revolve around questions of retaining or changing state policies and rules governing market entry. These issues have been

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(continued)

[15]Medicare pays in full for only the first 20 days of post-acute care. Between days 21 and 100, the patient is responsible for a copayment. After 100 days, the patient is responsible for all costs, unless he or she is Medicaid-eligible.

[16]It should be noted that the State is working on changing some regulations, such as the criteria for admission to a comprehensive rehabilitation hospital.

addressed before. In 1998, New Jersey eliminated certificate of need requirements for a great many, but not all, health care services. Public Law 1998, Chapter 43, called for a Certificate of Need Study Commission to make recommendations to the Governor and Legislature on whether the services that remained subject to CN—including nursing home, home health, and comprehensive rehabilitation services—should also be deregulated. In February 2000, Commissioner Grant issued the CN Study Commission's report, which called for retaining CN for these services. It concluded that the benefits in terms of quality and access outweigh disadvantages of a regulatory framework that can be cumbersome and slow. The work group did not take issue with this recommendation, but noted that a tight regulatory environment creates additional challenges to responding to changes in demand for health care services.

4. Working Hypothesis # 5: Medicare patients with excessive LOS require discharge to post-acute care.

The work group did not find evidence that either supported or refuted the idea that all patients with excessive LOS require discharge to post-acute care. Work group members noted that a number of different factors affected when a patient is discharged, including patient and family preference. These factors certainly cause some patients to remain in the hospital longer than they should. However, these issues presumably arise in the comparison states as well, so it is difficult to assess whether they play a disproportional role in New Jersey's excessive LOS.

III. POSSIBLE POLICY REMEDIES AND CONCLUSION

The work group concluded that the higher-than-average LOS of stay in New Jersey is a complex, multi-factorial problem that will be resolved only through efforts on the part of all stakeholders.

A. WHAT EVERYONE CAN DO

One recommendation that the work group has for all interested parties—including hospitals, skilled nursing facilities, home health agencies, and the state—is to promote the growth in supply of nurses and nurse's aides. The lack of nursing staff has limited the ability of many facilities, including post-acute care providers, to provide care. Until the supply of these caregivers increases, it will be difficult to make significant strides in increasing the use of post-acute care services.

B. WHAT PROVIDERS CAN DO

Hospitals and physicians need to focus more on discharge-planning practices. The work group concluded that few physicians are in a position to understand the post-acute care options available to them. Furthermore, few patients and families understand their options. As a result, many physicians and families depend on hospital discharge planners to make recommendations regarding post-acute placement. Unfortunately, discharge planners themselves have only a short time to learn the critical aspects of a patient's needs and family situation that will help them determine the best post-acute care option. Thus, physicians and hospitals must work together to make sure there is clear communication among all participants in the discharge process.

A second recommendation is that home health agencies do more outreach to physicians and discharge-planning staff about what types of patients home health care is suited for and what

home health can accomplish for patients. As discussed above, Medicare home health benefits have been underutilized in New Jersey compared with other states, perhaps in part because other health care providers have limited knowledge of the types of patients who can benefit from home health care services. Since home health agencies have the best knowledge of what they can offer a patient, they need to make certain this information is conveyed to those making the decisions about post-acute care.

A final recommendation is that hospitals and physicians should work with the New Jersey Hospital Association and The Medical Society of New Jersey to develop a pilot program that will test whether restructuring financial incentives related to Medicare patients will help decrease New Jersey's Medicare LOS. While it will be a challenge to align physician incentives without compromising quality or violating so called "anti-kickback" regulations, testing such programs and finding ways to make them work may help New Jersey make significant strides towards bringing its Medicare LOS in line with the experience in other states.

C. WHAT THE STATE CAN DO

The work group identified several actions that the state could take that might help alleviate the problem. These actions are (1) allowing the operation of a new type of service provider, Long-Term Acute Care Hospitals (LTACs); (2) changing home health market regulations to allow for greater entry into the Medicare home health market; (3) expanding access to comprehensive rehabilitation services; and (4) enhancing coordination between the State and hospital discharge staff with regard to the process of determining clinical eligibility for Medicare patients seeking post-acute placements who might also be eligible for Medicaid.

1. Introduce Long-Term Acute Care Hospitals (LTACs).

The majority of the work group agreed that introducing LTACs in New Jersey could help reduce the average acute care hospital LOS, but pointed out that the need for this type of facility

is limited and should be regionalized. A minority of members strongly disagreed that LTACs serve populations with different service needs than existing providers, and saw no need to add this type of provider to the mix of services in New Jersey.

LTACs are a class of acute-care hospitals that Medicare has designated for special reimbursement privileges. To qualify as an LTAC, a facility must serve patients in need of acute-care services and demonstrate an average LOS of at least 25 days. Currently, New Jersey has no LTACs because there is no separate licensure authority for them and until the problem of excessive Medicare LOS was identified, nobody requested such a licensure category. The State has, however, approved one LTAC as part of a broader certificate of need for a hospital converting from general acute-care services to an LTAC. Using cautious assumptions, the work group estimated that LTACs would reduce the number of acute care days by 20,000, or about one percent of the total number of Medicare-reimbursed days in 1998. Using more optimistic assumptions, the work group estimated that more than 211,000 days would be saved, for an eight percent reduction. The New Jersey Hospital Association, using more detailed data and a different set of assumptions, found that up to 10 percent of the acute-care days could be saved. Thus, regardless of the assumptions used, the work group found that LTACs could contribute to reducing the Medicare LOS in New Jersey. (See Appendix D for further details.)

The Committee noted that the key benefit of introducing LTACs is that doing so would provide Medicare beneficiaries with another choice for post-acute care services. Currently, beneficiaries who require a high level of skilled nursing services have two options: (1) remain in acute care, or (2) enter a skilled nursing facility. As skilled nursing facilities adjust to Medicare's recently implemented prospective payment system for these facilities, some patients with very high care needs may have difficulty gaining admission to them. If LTACs were an option in New Jersey, beneficiaries would have an additional choice of post-acute care providers who can handle high-need patients.

The work group acknowledges that the introduction of LTACs is likely to lead to increased competition among providers. However, it also recognizes that Medicare beneficiaries appear to underutilize the two main choices for post-acute care: skilled nursing services and home health care. To the extent that the present choices are not meeting some Medicare beneficiaries' needs, this new option may help fill the gap. And to the extent that weak competition among providers may result in reduced use of post-acute services, increasing competition could increase overall post-acute care use.

2. Evaluate the market for Medicare-certified home health agencies and possible increased entry and greater competition.

While the work group concurs that CN needs to remain in place for Medicare-certified home health and that unlimited competition would be counterproductive, it believes that increasing the number of Medicare-certified agencies and fostering a higher level of competition could have beneficial results for decreasing Medicare LOS. However, the work group noted that any attempts to increase supply and competition may be thwarted by the current perceived labor shortage of nurses and certified nurse's aides. The work group also took note of concerns that increasing the supply of Medicare-certified agencies might have a spillover effect to the State's Medicaid program, resulting in increased demands for Medicaid-reimbursed care.

3. Allow for greater access to currently authorized providers, such as has been proposed for rehabilitation hospitals.

The work group noted that, although the current supply of skilled nursing home beds and rehabilitation beds may be adequate for current needs, more choices among these providers for consumers may encourage greater use of these services by Medicare patients. Thus, a majority of the work group recommends fewer restrictions on the types of patients that providers can serve, as has been proposed for rehabilitation hospitals. In November 2000, the Department proposed modifying comprehensive rehabilitation hospital licensure standards to expand the

categories of patients eligible for admission. Currently, patients who cannot tolerate three hours per day of therapy on their first day may not be admitted. The proposed rule would allow admission of patients expected to tolerate this level of daily therapy within 10 days. The comment period for this rule recently closed, and the Department is assessing comments received. The work group's opinions on this issue were divided in much the same way as for LTACs.

4. Enhance coordination between the State and hospitals when both are involved in the discharge process.

The work group's exploration of discharge-planning processes in New Jersey's acute-care hospitals leads it to suggest that the State find ways to work more closely and effectively with hospital discharge planners when Medicare patients seek Medicaid-covered long-term nursing care.[17]

As described in Chapter II, current State procedures for determining patients' clinical eligibility for long-term nursing home care could contribute to delayed discharges, even when such procedures are implemented properly. In particular, relying on off-site, Department nurses to administer pre-admission screens, and allowing them 72 working (that is, non-weekend) hours to do so, could lead to a patient's remaining in the hospital longer than is medically necessary.[18]

The State is already taking steps that may help reduce instances of hospital stays that are prolonged by pre-admission screening requirements. For example, one objective of New Jersey's Community Choice Counseling Hospital Demonstration Project is to more closely coordinate the Department's pre-admission screening process with hospitals' discharge

[17]The work group notes that there is no apparent problem in promptly discharging patients deemed to need short-term post-acute care.

procedures. The demonstration intends to meet this objective by having on-site Department nurses participate in utilization review rounds and social services meetings. Such enhanced coordination is expected to help expedite the discharge process two ways: by providing early access to candidates targeted for discharge and by affording the opportunity to provide counseling for patients and families concerning long-term care options.

It may also be advisable for the State to investigate pre-admission procedures that seem to work well for other states, and that may be a less expensive option for hospitals with relatively few Medicaid-eligible discharges. For example, Massachusetts relies on hospital staff—rather than state-employed nurses—to determine patients' clinical eligibility for long-term nursing care. (Massachusetts implemented this procedure in the mid-1980s. It had previously used a system more like New Jersey's current system in its reliance on state nurses to assess clinical eligibility for long-term nursing care.)[19]

C. CONCLUSION

New Jersey's health care system will have to provide care for a growing number of elderly patients. This work group has taken the first step toward identifying incremental changes that could help rationalize the setting in which care is provided, to minimize inappropriate use of the most expensive providers (acute-care hospitals), moving care to potentially less expensive providers, or (in the case of LTACs) a provider who is reimbursed for longer periods of care. Such changes will also provide patients and their families more choice of settings in which they can use their Medicare benefits. New Jersey has taken other steps in this regard (for example,

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(continued)

[18]Some work group members indicated that determining financial eligibility may actually be a relatively larger barrier. The work group could not examine this issue exhaustively, and suggest that further work cold be done in this area.

introducing the Community Choice Initiative Program), and more such efforts will need to be undertaken in the future.

Acute-care hospitals as a whole can be expected to benefit financially, under Medicare's prospective payment system, from reductions in their Medicare patients length of stay. These reductions should translate into gains for many post-acute care providers who would now be offering Medicare-reimbursed services to more patients. Many post-acute care providers are concerned by the prospect of increased competition among a larger variety of providers. While it is likely that these recommended changes may create individual winners and losers among post-acute providers, a majority of the work group believes they will be constructive for New Jersey's post-acute care delivery system as a whole.

(continued)

[19]Information on discharge practices in Massachusetts hospitals was obtained through a telephone interview with the staff member in charge of long-term-care provider relations in the state's Division of Medical Assistance.

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GLOSSARY

Assisted Living Facility: A group residence offering a "coordinated array of supportive personal and health services, available 24 hours per day, to residents who have been assessed to need these services, including residents who require formal long-term care. Assisted living promotes resident self-direction and participation in decisions that emphasize independence, individuality, privacy, dignity and home like surroundings (NJAC 8:36-1.3) The level of care offered by assisted living facilities falls between that which is offered by retirement homes and that which is offered by nursing facilities (National Center for Assisted Living 2000). See Nursing Facility.

Case-Mix Adjusted Medicare Length of Stay (LOS): The total number of acute care inpatient days in a hospital divided by the total number of acute care discharges from the hospital. To adjust the average length of stay for the severity of cases treated, the ratio is further divided by the Medicare case mix index of the hospital (Health Care Investment Analysts, Inc. 2000).

Certificate of Need Process: In New Jersey, a review process conducted by the Department of Health and Senior Services to promote the rational development of health facilities and services by ensuring that new facilities are constructed or established in market areas with demonstrable needs for the facility's services.

Comprehensive Rehabilitation hospital: See Rehabilitation Hospital.

Days in Net Accounts Receivable: The number of days of net patient revenue that a hospital has due from its patient billings after all deductions. A hospital's net patient accounts receivable divided by its net patient revenue times 365 days (Health Care Investment Analysts, Inc. 2000).

Diagnostic Related Groups (DRGs): A patient classification system used to identify distinct types of hospital inpatient cases that should be priced separately because they are expected to require different amounts or types of providers' resources. The DRGs are the foundation of Medicare's hospital inpatient prospective payment system. Each DRG is intended to distinguish patients with similar clinical conditions who are treated with common medical or surgical treatment strategies. (MedPAC 2000). See Medicare Prospective Payment System.

Disproportionate-Share Hospital: A hospital that receives a payment adjustment under the Medicare prospective payment system or under Medicaid because it serves a relatively large volume of low-income patients (MedPAC 1998). See Medicare Prospective Payment System.

Home Health Agency: A facility which is licensed by the New Jersey Department of Health and Senior Services to provide preventive rehabilitative and therapeutic services to patients in the patient's home or place of residence. All home health agencies shall provide nursing, homemaker-home health aide and physical therapy services (NJAC 8:42-1.2).

Hospital Rate-Setting System: In New Jersey, a hospital payment system regulated by the State, which determined payment rates.

Long-Term Acute Care Hospital (LTAC): A type of specialty hospital that provides acute and post-acute hospital care to medically complex patients who are critically ill, have multisystem

complications and/or failure, and require hospitalization averaging more than 25 days. LTACs offer specialized treatment programs and therapeutic intervention on a 24-hour/7-day-a-week basis (American Hospital Association 2001). As it did with rehabilitation and some other specialty hospitals, Congress excluded LTACs from the hospital inpatient prospective payment system because they typically serve cases that involve lengths of stay that are longer or more costly than the DRG system would predict. To be PPS-exempt, LTACs must demonstrate an average length of stay of more than 25 days (MedPAC June 2000). See Rehabilitation Hospital, Medicare Prospective Payment System, and Post-Acute Care.

Long-Term, Custodial Nursing Home Care: Long-term services provided in a nursing facility that are expected to maintain (as opposed to improve) functional status for the duration of the patient's life. Medicare does not cover this form of nursing home care, and it is generally not considered a post-acute care service. See Nursing Facility and Post-Acute Care.

Major Teaching Hospitals: Hospitals with an approved graduate medical education program and a ratio of interns and residents to beds of 0.25 or greater (MedPAC 1998). See Teaching Hospitals.

Managed Care: Any system of health service payment or delivery arrangements where a health plan attempts to control or coordinate the use of health services by its enrolled members to contain health expenditures, improve quality, or both (MedPAC 1998).

Managed Care Penetration: The number of managed care enrollees divided by the sum of managed care enrollees plus fee-for-service enrollees for a given subscriber population (for example, Medicare enrollees) in a given market area (for example, a state). Expressed as a percentage.

Medicare + Choice: A program created by the Balanced Budget Act of 1997 to replace the existing system of Medicare risk and cost contracts. Beneficiaries have the choice during an open season each year to enroll in a Medicare + Choice plan or to remain in traditional Medicare. Medicare + Choice plans include managed care organizations, private fee-for-service plans, or high-deductible plans with medical savings accounts (MedPAC 1998).

Medicare Prospective Payment System (PPS): A method of paying health care providers for their services to Medicare beneficiaries according to a schedule of predetermined rates. Providers are paid these rates regardless of the costs they actually incur (MedPAC 1998). Medicare established PPS for inpatient hospitals in 1983, for skilled nursing facilities in 1998, and for home health care services in 2000. The Health Care Financing Administration is expected to implement prospective payment systems for inpatient rehabilitation hospitals and LTACs within the next few years. See Skilled Nursing Facility, Rehabilitation Hospital, and Long-Term Acute Care Hospital.

Minor Teaching Hospital: A hospital with an approved graduate medical education program and a ratio of interns and residents to beds of less than 0.25 (MedPAC 1998).

Nursing Facility: An institution that provides skilled nursing care and rehabilitation services to injured, functionally disabled, or sick persons. See Skilled Nursing Facility.

Operating Profit Margin: A measure of a hospital's profitability with respect to its patient care services and operations. The difference between a hospital's total operating revenue and total operating expense, expressed as a percentage of its total operating percentage of its total operating revenue (Health Care Investment Analysts, Inc. 2000).

Post-Acute Care: Recuperative or rehabilitative services provided to people after acute-care hospital stays. Skilled nursing facilities, home health care agencies, inpatient rehabilitation facilities and long-term acute-care hospitals may all provide Medicare-covered post-acute care services (The Urban Institute 1999). See Skilled Nursing Facility, Home Health Care, Rehabilitation Hospital, and Long-Term Acute Care Hospital.

Rehabilitation Hospital: A type of specialty hospital that provides inpatient care encompassing a comprehensive array of restoration services for the disabled and all support services necessary to help patients attain their maximum functional capacity (American Hospital Association 2001). Congress excluded inpatient rehabilitation hospitals from the hospital inpatient prospective payment system because they typically serve cases that involve lengths of stay that are longer or more costly than the DRG system would predict. To be PPS-exempt, rehabilitation hospitals must: (1) serve an inpatient population of whom at least 75 percent require intensive rehabilitation services for the treatment of one or more of 10 specified conditions; (2) have a multidisciplinary staff; and (3) adhere to specific procedures for preadmission screening and ongoing patient evaluations (MedPAC June 2000). The New Jersey Department of Health and Senior Services refers to such facilities as "comprehensive rehabilitation hospitals," and requires that patients be screened to assure their treatment in a facility will result in demonstrating increased functional abilities and improved quality of life after discharge.

Routine Discharge: Release from an inpatient acute-care hospital to a home or community setting in which the patient does not require post-acute care services. See Post-Acute Care.

Skilled Nursing Facility (SNF): An institution that has a transfer agreement with one or more hospitals, provides primarily inpatient skilled nursing care and rehabilitative services, and meets other specific certification requirements (MedPAC 1998). SNFs provide non-acute medical and skilled nursing services, therapy and social services under the supervision of a licensed registered nurse on a 24-hour basis (American Hospital Association 2001).

Subacute Care: A step-down unit for patients that don't need the intensive services of an acute hospital setting, but are not ready to be released to independent care at home (Medical Group Management Association 2000). In New Jersey, admission to subacute care is restricted to patients with particular care needs.

Teaching Hospital: A hospital with an approved graduate medical education program (MedPAC 2000).

Total Asset Turnover Ratio: Measures the amount of productivity a hospital achieves in relation to the assets that it controls. A hospital's net patient revenue divided by its total assets (Health Care Investment Analysts, Inc. 2000).

APPENDIX A

LIST OF COMMITTEE MEMBERS

MEMBERS OF THE POST-ACUTE CARE WORK GROUP

The table below lists (1) work group members (alphabetically by last name) and their representatives (if any), (2) Department staff who participated in work group meetings, and (3) work group consultants.

Work Group Members	
Name (Representative)	Professional Affiliation
Jean Allen-Bestafka	Home Health Services and Staff Association
Edie Behr (Steve Fillebrown, Jeanette Bergeron)	New Jersey Health Care Facilities Financing Authority
Gary Carter (Theresa Edelstein)	New Jersey Hospital Association
Frank Ciesla	Giordano, Haleran & Ciesla
Ken Dolan	Home Care Council of New Jersey
June Duggan	New Jersey Association of Non-Profit Homes for the Aging
Sonia Delgado	New Jersey Association of Health Plans
Barbara Bittenbinders	Amerihealth
Sue Grinikench	Visiting Nurse and Health Services
Jane Harky (Linda Schwartz)	New Jersey Association of Adult Day Care Providers
Suzanne Ianni	Hospital Alliance of New Jersey
John Jacobi	Seton Hall University
Carol Kientz	Home Health Assembly of New Jersey
Ann Kohler	New Jersey Department of the Treasury, Office of Management and Budget
Dave Kostinas	Dave Kostinas Associates
Paul Langevin	New Jersey Association of Health Care Facilities
Jonathan Metsch (Hazeline Pilgrim)	Jersey City Medical Center
Don Pendley	New Jersey Hospice and Palliative Association
Irving Ratner	Medical Society of New Jersey
Janet Sierzega	Society for Social Work Leadership
Karen Suter (Jane Majcher)	New Jersey Department of Banking and Insurance
Tom Terrill (Christine Carlson-Glazer)	University Health System
Ed Tetelman	New Jersey Department of Human Services
Neil Weisfeld (George Hare, M.D.)	Medical Society of New Jersey

Department of Health and Senior Services Staff	
Name	Title
John Calabria	Director, Certificate of Need and Acute Care Licensure
Marilyn Dahl	Senior Assistant Commissioner, Health Planning and Regulation
Barbara Goldman	Director, Long Term Care Licensing and Certification
Emmanuel Noggoh	Director, Research and Development, Division of Health Care Systems Analysis

Mathematica Policy Research, Inc. (Consultant to the Work Group)	
Name	Title
Valerie Cheh	Senior Health Economist
Leslie Foster	Research Analyst

APPENDIX B

COMPARISON STATE DATA

TABLE B.1

DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS BY STATE

	NJ	CT	FL	IL	MA
Percent of Population 65 Years Old and Older (1996)	13.8	14.3	18.5	12.5	14.1
Percent of Population, 85 Years Old and Older (1996)	6.2	6.8	8.4	5.8	6.7
Percent Linguistically Isolated, Non-English Speaking Individuals, 65 Years and Older (1989)	5.0	4.6	5.3	3.4	4.7
Per Capita Income (in Thousands) (1997)	32.4	35.9	24.8	27.7	31.2
Percent Poor (1994-95)	10	10	18	14	12
Percent Unemployed (1996)	6.4	4.7	5.0	5.2	4.8
Percent Uninsured (1996-98)	16.5	11.8	18.7	12.9	11.8
Expenditures on Health and Hospitals as a Percentage of Total State Expenditures (FY 1992-93)	4.9	7.7	10.2	6.5	8.9

SOURCE: AARP, U.S. Census.

APPENDIX C

MONTHLY COMMITTEE MEETING MINUTES

Post-Acute Care Work Group

September 13, 2000, Meeting Minutes

Attendees. Marilyn Dahl, Gina Bassiakos, Jeanette Bergeron, Jean Alan Bestafka, John Calabria, Valerie Cheh, Marty Dodoo, Theresa Edelstein, Steve Fillebrown, Leslie Foster, George Hare, Carol Kientz, Ann Clemency Koller, David Kostinas, Paul Langevin, Jane Majcher, Jonathan Metsch, Joanne Mrazik, Emmanuel Noggoh, Roger Sarao, Janet Sierzega, and Ed Tetelman

Upcoming Meetings and Final Report Schedule. Marilyn Dahl, Senior Assistant Commissioner for Health Planning and Regulation of the New Jersey Department of Health and Senior Services, announced the following plans for the remaining work group meetings.

On October 18, Valerie Cheh, a Senior Health Economist at Mathematica Policy Research, Inc., (MPR) will present findings and lead a discussion on key differences between post-acute care and length of stay (LOS) issues in New Jersey and other states.

On November 15, the work group will identify and review the areas of agreement and disagreement that emerged in previous meetings.

On December 20, the work group will review an outline of a final report, prepared by MPR.

MPR will prepare and circulate a draft report to work group members shortly thereafter. The final report reflecting member comments will be submitted in January.

Discussion of Working Hypotheses. The work group, led by Ms. Dahl, discussed five working hypotheses about the relatively long Medicare LOS in New Jersey hospitals and about post-acute care services in the state. Ms. Dahl reminded members that, except for the first hypothesis, the working hypotheses do not reflect the Department's views. They are intended to stimulate discussion.

1. New Jersey hospitals Medicare LOS should not exceed the national average. The group quickly reached consensus that New Jersey's case-mix-adjusted Medicare average length of stay (ALOS) should not exceed the national average.

2. Medicare patients with excess LOS require discharge to post-acute care. Group members both supported and refuted this hypothesis. Evidence supporting the hypothesis that unmet post-acute care needs are increasing LOS may be found in the 1998 UB Data on Medicare Cases by DRG, for example. A group member observed that DRGs with the greatest differences between ALOS and geometric mean LOS are many of the same DRGs that characterize patients in long-term acute care hospitals (LTACs). On the other hand, it was noted that HCFA's Region 2 states, including New Jersey, New York, and Puerto Rico, all have relatively long Medicare LOS, suggesting that there might be an administrative factor contributing to the excessive LOS. Another group member cited preliminary findings from the Department of Health and Senior Services' Community Choices demonstration,

which focuses on hospital discharge planning. Demonstration evaluators have already observed a decrease in LOS, which suggests that discharge planners have a role to play in lowering Medicare LOS. Another group member suggested that hospitals can control LOS through front-end means as well as discharge practices. At his hospital, a change in assignment of cases produced a 20 percent reduction in LOS in three months.

3. Different types of post-acute care serve different populations. Two main points were made challenging this hypothesis. First, MedPAC data have shown that different types of post-acute care providers serve patients with some of the same diagnostic related groups (DRGs). However, it was noted that DRGs do not reflect differences in acuity. Second, group members representing different types of providers described similar "desirable" clients (for example, those not expected to become Medicaid-eligible and those without need for multiple prescription drugs) and said that financial and reimbursement considerations forced them to be selective about admissions.

One member suggested that hospitals discharge patients too early and observed that most nursing homes lack staff with the skills needed to treat post-acute care patients at their time of discharge (that is, patients are not sufficiently recovered for care in a nursing home at the time of discharge).

It was also noted that LTACs, which do not currently operate in New Jersey, tend to serve higher acuity patients than other types of providers. If these are the same patients with excessively long hospital stays, it may be possible for New Jersey to develop LTACs and access an untapped source of Medicare revenues without taking market share from other types of providers, such as skilled nursing facilities.

4. New Jersey has sufficient capacity and distribution of post-acute care to accommodate reductions in Medicare LOS. Group members seemed to agree that New Jersey has sufficient physical capacity (enough nursing home beds, for example) to meet post-acute care needs, but insufficient labor supply. Other members noted shortages in less skilled health care workers, such as home health aides. Because other states are experiencing similar labor shortages, however, New Jersey's shortages would not seem to explain its above average Medicare LOS in acute-care hospitals. Finally, a group member commented that New Jersey has more one- and two-physicians practices than other states; as a result, New Jersey hospitals may have relatively more difficulty communicating with physicians about managing LOS.

5. Non-capacity issues account for New Jersey general acute-care hospitals' excess Medicare LOS. A number of group members argued that the state's excessive Medicare LOS is in part due to hospital inefficiency. Group members suggested that New Jersey's former rate-setting system--which was in place while other states moved to the DRG system--contributed to the inefficiency and did not encourage hospitals to lower their Medicare LOS. It was further noted that New York, which has similarly long Medicare LOS, abandoned rate-setting several years after New Jersey. Thus, LOS might be related to hospital efficiency.

Group members identified several other non-capacity factors that may be correlated with Medicare LOS, including cultural and family preferences and the incompatible financial incentives of health providers and consumers. While Medicare payment policies encourage *providers* to discharge patients as quickly as possible, *patients*□ private health insurance policies tend to encourage hospitalization over other types of care, including lengthy courses of post-acute care. Group members expressed interest in knowing whether New Jersey differs from other states in this regard. Most group members seemed to doubt that New Jersey differs greatly from other states with regard to cultural and family factors or financial incentives that may be related to Medicare LOS.

Objectives of the Comparative Analysis. Group members agreed that a comparative analysis should focus on policy-amenable variables. States with population characteristics that are similar to New Jersey's but Medicare LOS statistics that are different will be selected for comparison. It was agreed that states with vastly different care approaches, such as California with its long history of managed care, would not be suitable for comparative purposes. One member summarized Medicare LOS as a problem whose causes are not well understood, but which must be solved. Accordingly, a menu of □a thousand approaches□ is required to address the problem.

Sources of Data. In addition to collecting and analyzing comparative data from other states, MPR will assess the tables distributed at earlier work group meetings, including those showing Uniform Billing data compiled by the Department and the New Jersey Hospital Association. Group members requested data on occupancy rates in chronic long-term care ventilator units. The possibility of conducting or analyzing patient surveys was discussed and rejected because of time and resource constraints.

Handouts. (1) list of □Reasons Why Admissions from Hospitals Get Delayed□ from the New Jersey Association of Health Plans; (2) July 26, 2000, NJHA letter summarizing responses to a survey of hospital utilization and case managers, and (3) table of □Medicare ALOS in UHS Hospitals Sorted by Number of Gerontologists□; (3) list of barriers and recommendations from the New Jersey Society for Social Work Leadership in Health Care

Next Meeting. The Post-Acute Care Work Group will next meet on October 18 at 11:00 a.m. Group members were asked to RSVP to Jill Velez at (609) 984-3939.

Post Acute-Care Work Group

October 18, 2000, Meeting Minutes
REVISED

Attendees. The following work group members attended: Jean Alan Bestafka (Home Health Services and Staffing Association); Jeanette Bergeron, Steve Fillebrown (New Jersey Health Care Facilities Financing Authority); Valerie Cheh, Leslie Foster (Mathematica Policy Research, Inc.); Sonia Delgado (New Jersey Association of Health Plans); Theresa Edelstein (New Jersey Hospital Association); George Hare (Medical Society of New Jersey); Carol Kientz (Home Health Assembly of New Jersey); Paul Langevin (New Jersey Association of Health Care Facilities); Jane Majcher (New Jersey Department of Banking and Insurance); Joanne Mrazik (New Jersey Office of Management and Budget); Hazeline Pilgrim, (Jersey City Medical Center); and John Thornton (Horizon-Blue Cross/Blue Shield New Jersey). Marilyn Dahl, Emmanuel Noggoh, John Calabria, and Martey Dodoo represented the New Jersey Department of Health and Senior Services.

Presentation and Discussion. In a presentation to the work group, Valerie Cheh offered evidence for and against the work group's hypotheses about the excessive Medicare length of stay (LOS) in New Jersey hospitals by comparing New Jersey with four states that have better LOS. The comparison states, Connecticut, Massachusetts, Florida, and Illinois, were chosen for their likeness to New Jersey on several demographic, economic, and other characteristics.

Dr. Cheh's slides and some additional data tables were distributed at the meeting and are attached for those who could not attend. Her presentation is not recreated in these minutes. Rather, the minutes focus on the work group's discussion of Dr. Cheh's presentation. Research questions and key points are reiterated to provide context.

1. *Are New Jersey's hospitals less efficiently managed because of a history of rate setting?* New Jersey fared as well or worse than the comparison states on commonly used measures of hospital management. Overall, hospitals in the state seem to have adjusted appropriately to prospective payment for Medicare services, except that they have not diversified their revenues as much as hospitals in other states. Dr. Cheh concluded, and most of the work group agreed, that there was not enough strong evidence of hospital inefficiency to attribute all or most of the LOS problem to hospital management; other causes must be examined.

2. *Is there a lack of skilled nursing post-acute care services in New Jersey?* Dr. Cheh used the term "post-acute care" to describe services that are expected to be short-term and rehabilitative. By contrast, she used "long-term post-acute care" (discussed below) when referring to maintenance-level services that are expected to be provided for the remainder of a patient's life.

   The data available for Dr. Cheh's presentation suggested that in 1997 New Jersey had about the same number of skilled nursing beds as the national average, but had fewer beds than some of the comparison states. New Jersey also used skilled nursing beds less. Group members suggested that occupancy rates would be a more useful measure of capacity than the number of beds per 1,000 enrollees. Some suggested that New Jersey had unused bed capacity that could not be detected in the data

presented. It was noted that occupancy rates in skilled nursing facilities are lower today than they were in 1998, when the most recent data were available. The group seemed to agree that New Jersey has enough skilled nursing beds.

The data presented at the meeting also showed that New Jersey had fewer home health agencies per 1,000 Medicare enrollees in 1998 than other states. Even though agencies in New Jersey tend to be larger than those in other states, as one work group member observed, home health services were used less in New Jersey than in other states (as measured by visits per 1,000 users). State regulations restricting the types of services that can be provided at home (a group member noted that home health agencies cannot deliver insulin, for example) may contribute to lower levels of use.

3. *How does New Jersey compare in providing long-term care services?* The data showed that New Jersey seemed to have an adequate supply of nursing beds in 1998 (although it had relatively few beds per 1,000 elderly, states with more beds were eliminating beds between 1996 and 1999). Data also showed that New Jersey had more long-term residential care beds than other states, especially given the recent increase in assisted living facilities in the state. Group members expressed doubt that New Jersey's supply of long-term care, though apparently adequate, would greatly affect inpatient Medicare LOS because few patients enter long-term care directly from the hospital.

4. *Could the organization of physician practices contribute to longer lengths of stay?* The data suggested that, compared to other states, fewer physicians in New Jersey practice in groups; group practices that do exist are slightly smaller in New Jersey than elsewhere; and physician incentives may not be as strongly tied to hospital incentives in New Jersey as in other states. As a result, group members agreed, hospitals may have more difficulty educating physicians about post-acute care issues and encouraging physicians to implement practices that could decrease inpatient LOS. The group also noted that there are few financial incentives, such as risk-based arrangements, that would encourage New Jersey doctors to work toward lowering hospital LOS.

5. *General comments.* The work group seemed to agree that a multitude of factors contribute to the excessive Medicare LOS in New Jersey hospitals. While no leading cause emerged from the data Dr. Cheh presented, the group seemed willing to identify long-term care supply as the least important factor among those discussed. The work group faces the challenge of identifying causal factors that it does not share with states that have shorter LOS. In other words, while it is tempting to attribute New Jersey's LOS problem to patients' complex medical care needs, for example, New Jersey does not differ from other states in this regard. Connecticut and Massachusetts have similar patient populations but lower LOS.

Next Steps. Before the next meeting, the New Jersey Hospital Association will provide the Department with additional information on long-term acute care hospitals (LTACs). Mathematica Policy Research, Inc. will investigate regulatory differences that may be contributing to New Jersey's LOS problem.

Plans for the Next Meeting. The group agreed to discuss whether LTACs have the potential to lower Medicare LOS in acute care hospitals. The group will also begin developing an outline of

its final report. The meeting is scheduled for Wednesday, November 15, at 12:00 p.m., a change from the original schedule.

October 18 Handouts. Copies of slides and tables from Mathematica Policy Research, Inc.; GAO testimony on Medicare refinements and provider payments; a description of enhanced community option waivers from the Department; and ventilator facility data from 1997 - 1999. Handouts and minutes from previous meetings were also available.

Post Acute-Care Work Group

November 15, 2000, Meeting Minutes

Attendees. The following work group members attended: Barbara Bittenbinder (AmeriHealth); Valerie Cheh, Leslie Foster (Mathematica Policy Research, Inc.); Frank Ciesla (Giordano, Haleran & Ciesla); Sonia Delgado (New Jersey Association of Health Plans); Ken Dolan (Home Care Council of New Jersey); June Duggan (New Jersey Association of Nonprofit Homes for the Aging); Theresa Edelstein, Roger Sarao (New Jersey Hospital Association); Steve Fillebrown (New Jersey Health Care Facilities Financing Authority); George Hare (Medical Society of New Jersey); Jane Harkey (New Jersey Association of Adult Day Care Providers); Susan Ianni (Hospital Alliance of New Jersey); Ann Kohler, Joanne Mrazik (New Jersey Office of Management and Budget); David Kostinas (David Kostinas Associates); Paul Langevin (New Jersey Association of Health Care Facilities); Jane Majcher (New Jersey Department of Banking and Insurance); Janet Sierzega (New Jersey Society for Social Work Leadership in Health Care): Tom Terrill (University Health System); Ed Tetelman (Department of Human Services); and John Thornton (Horizon-Blue Cross/Blue Shield New Jersey).

Marilyn Dahl, John Calabria, Frances Costa, Martey Dodoo, Anthony Kobylarz, and Emmanuel Noggoh represented the New Jersey Department of Health and Senior Services.

Discussion of October 18 Meeting Minutes. The work group reviewed and discussed the minutes of its October 18 meeting, both to assess their accuracy and to debate how certain points should be made in the work group's final report. Of four key points addressed in the minutes, the work group agreed to make changes to two of them. (1) Work group members noted that the minutes' discussion of hospital billing practices was incomplete, but nor was the discussion related closely enough to length of stays issues to have to be included in the minutes. (2) Work group members noted that the minutes omitted a point about physician incentives.

New Jersey Hospital Billing Data on Discharges to Post-Acute Care. At Marilyn Dahl's request, Valerie Cheh commented on New Jersey hospital inpatient billing data that had been distributed to the work group several meetings ago. Dr. Cheh gave two reasons the data would not help explain New Jersey's Medicare length of stay problem: (1) there is no comparison data, such as from another state; and (2) hospitals' place-of-discharge data is seldom of high quality. Because discharge data does not affect reimbursement, hospitals have little incentive to record it accurately. In addition, the decision to use post-acute care services is sometimes made after a patient leaves the hospital. As a result, routine discharges tend to be over-reported.

One work group member suggested that we examine the discharge practices of hospitals that own post-acute care units. Because the data that was distributed to the work group was blinded, members are not in a position to examine this issue.

Discussion of Long-Term Acute Care

- *Introduction.* In her introductory remarks about long-term acute care (LTAC) hospitals, Marilyn Dahl made several points, including:
  - LTAC hospitals are a class of acute care hospitals that is exempt from Medicare's prospective payment system (PPS) for inpatient hospital services.

- There were 207 LTAC hospitals nationwide as of June 1998 (as reported by the Medicare Payment Advisory Commission in its June 2000 report to Congress).
- The operating margins of LTAC hospitals fluctuated between 1990 and 1998. Margins were negative from 1990 through 1993. Between 1994 and 1997, they grew from 0.3 to 4.9. They then dropped to –1.8 in 1998, following the implementation of the Balanced Budget Act of 1997.
- The average cost per discharge in LTAC hospitals was about $17,000 in 1998, which is considerably higher than the average cost per discharge in inpatient rehabilitation hospitals. Both types of hospitals had similar costs per diem, however (at about $600 per day in 1998).
- The average length of stay in LTAC hospitals was 27.9 days in 1998. An average length of stay of at least 25.0 days is required for PPS exemption.
- The average LTAC hospital has about 75 beds.
- Geographically, LTAC hospitals are concentrated in the northeastern United States, although none exist in New Jersey.
- The Department has received some certificate of need applications seeking to convert some beds at closed hospitals into long-term acute-care beds.
- The Department is interested in the work group's views on whether LTAC hospitals could contribute to reductions in Medicare LOS in short-term acute-care hospitals, and whether they duplicate or overlap other types of post-acute care providers.

- *New Jersey Hospital Association's White Paper on Long-Term Acute Care Hospitals.* Theresa Edelstein summarized the NJHA's position on the potential of long-term acute-care hospitals to be part of the solution to New Jersey Medicare length of stay problem. She referred group members to the paper itself for a more detailed discussion. Ms. Edelstein suggested, among other points, that some of New Jersey's outlier patients—whom she said tend not be placed in skilled nursing facilities or rehabilitation hospitals—could be well-served by LTAC hospitals. Patients in LTAC hospitals tend to have multiple, complex needs and often require nursing, respiratory, and therapy services each day.

  Ms. Edelstein suggested that LTAC hospitals could be a good source of Medicare revenue for New Jersey. The NJHA estimates a need for about 1,500 LTAC beds statewide, for a total of about 400,000 patient days. (The work group noted that these would be "shifted" days, not additional days of care.) Research conducted for the NJHA estimates that the Medicare caps on LTAC hospitals would be approximately $25,000 per discharge in New Jersey. Ms. Edelstein also noted that, despite the requirement in the Balanced Budget Act of 1997 to implement PPS for LTAC hospitals by 2002, HCFA has told Congress that it is unlikely to implement such a system until 2003 or 2004. She hypothesized that LTAC financial viability under PPS would be similar to current circumstances.

  While the NJHA believes LTAC hospitals would be beneficial in New Jersey, it advises limited development. Expenses during the first six months of operation are high because the hospitals, like any other acute care hospital, would be subject to

Medicare PPS until they demonstrate that their average length of stay is at least 25 days. To be financially successful, an LTAC hospital and the area it serves must meet many criteria, such as sufficient DRG volume. The NJHA has identified only a handful of areas throughout the state that meet all the criteria, with most of those located in Hudson and Essex Counties.

Asked, later in the meeting, about potential staffing issues at LTAC hospitals, Ms. Edelstein said that staffing across all health care institutions was becoming progressively more difficult. On the other hand, she suggested that an LTAC approach to care could appeal to staff who value the opportunities for provider/patient relationships that long-term care affords.

Members of the work group noted that in some cases, moving an acute-care patient who has an excessive length of stay to a LTAC hospital may be a better financial alternative (that is, it would generate more Medicare revenues) than leaving him or her in an acute care setting. In other cases, it would be more financially advantageous to the system to continue to treat outlier patients wherever they are currently treated (for example, in an acute-care hospital, skilled nursing facility or rehabilitation hospital). Ms. Edelstein noted that each hospital would have to assess the costs and benefits of using LTAC services, and carefully consider such issues as the amount of cost outlier revenues received from Medicare. It was also noted that fiscal intermediaries (under contract with HCFA's regional offices) are responsible for utilization review at LTAC hospitals; that is, they do or do not certify that patients admitted to LTAC hospitals are acutely ill and in need of LTAC services.

Group members were cautioned against assuming that Medicaid would pay for patients in LTAC hospitals under a different basis than it currently reimburses hospital care. Medicaid is unlikely to adopt Medicare's approach.

One group member argued that some New Jersey hospitals might try to establish LTAC units in an effort to avoid closing, and questioned the legitimacy of such a strategy. Other group members did not appear to share this view. For example, one noted that acute-care hospitals have had to diversify their services. For financial reasons, many hospitals have transformed themselves into full-service "medical centers" by opening home health care agencies, community health clinics, long-term care (nursing) homes, and other types of facilities. New Jersey hospitals are justifiably working for their survival, as are hospitals throughout the country, the group member said.

- *DRG Overlap with Other Post-Acute Care Providers.* Valerie Cheh presented a table showing that eight of the 10 diagnosis-related groups (DRGs) that are most common in LTAC hospitals—accounting for 50 percent of admissions—also prevail in other post-acute care settings. Two DRGs relating to ventilator support, however, are not commonly found in other post-acute care settings. A work group member requested that the DRGs in the table be ranked to show the proportion of discharges in each DRG. (MPR will change the table in this way.)

  At least one work group member found the table overly simplistic for several reasons: A list of DRGs commonly found in various care settings masks differences in intensity among individual patient needs, as well as the financial incentives of the various providers. Thus, it would be dangerous to conclude from the table that

providers compete for those 10 DRGs. At least one other group member questioned New Jersey's need for LTAC hospitals, however, pointing to their potential to divert patients from skilled nursing facilities. The work group did not reach a consensus on the potential for DRG overlap across types of providers if New Jersey were to introduce LTAC hospitals.

- *Hypothetical Impact on Hospital ALOS.* Leslie Foster presented data that estimated the potential of LTAC hospitals to reduce short-term acute-care hospital length of stay for Medicare patients. Her premise was that introducing LTAC hospitals would reduce the LOS for at least the 10 DRGs most commonly found in LTAC hospitals by some amount. She presented two hypothetical scenarios. The first scenario assumed that the introduction of LTAC hospitals would allow New Jersey short-term acute-care hospitals to lower length of stay for the 10 DRGs to the national average. Under this assumption, New Jersey short-term acute-care hospitals would eliminate (that is, shift to LTAC hospitals) over 200,000 acute-care patient days, reducing the average length of stay by 8 percent.

  The second scenario assumed that LTAC hospitals would allow for the reduction of length of stay in these 10 DRGs to the same level as found in other DRGs in New Jersey. In other words, the length of stay for the 10 DRGs remain 31 percent higher than the national average. Under this less optimistic scenario, the number of acute-care patient days declined by about 20,000 days, or 1 percent.

  The work group noted several limitations to this analysis. Some thought too few DRGs had been used to estimate the potential reduction in days. Others said that the analysis did not account for providers' financial incentives, or that it equated, erroneously, the incentives of doctors and hospitals.

- *DHSS Regulatory Approach.* Marilyn Dahl said the Department has heard considerable interest in LTAC hospitals from providers around the state. She outlined the approach the Department is planning to take. LTAC hospitals will be treated as a subcategory of special hospitals and will be required to offer many, but not all, of the same services as short-term acute care hospitals. Decisions about what type of certificate of need review will be required for LTACs not resulting from hospital closure remain to be worked out. Ms. Dahl indicated that LTAC hospitals would likely be ineligible for state charity care subsidies.

Plans for the Next Meeting. The group will review a draft outline of the final report. The meeting is scheduled for Wednesday, December 20, at 11:00 a.m.

November 15 Handouts. (1) Meeting agenda; (2) "Overview of Office of Long Term Care Options Field Office Operations"; and (3) Three tables prepared by Mathematica Policy Research, Inc.: "The Ten Most Commons DRGs at Long-Term Care Hospitals Also Prevail in Other Post-Acute Care Settings," "Changes in Long-Term Care Hospital Performance, 1990-1998," "Could Long-Term Care Hospitals Reduce the Medicare Length of Stay in New Jersey Hospitals?"

Post Acute-Care Work Group

December 20, 2000, Meeting Minutes

Attendees. The following work group members attended: Jean Alan Bestafka (Home Health Services and Staff Association); Barbara Bittenbinder (AmeriHealth); Valerie Cheh, Leslie Foster (Mathematica Policy Research, Inc.); Frank Ciesla (Giordano, Haleran & Ciesla); Theresa Edelstein, Roger Sarao (New Jersey Hospital Association); Steve Fillebrown (New Jersey Health Care Facilities Financing Authority); George Hare (Medical Society of New Jersey); Jane Harkey (New Jersey Association of Adult Day Care Providers); Susan Ianni (Hospital Alliance of New Jersey); Carol Kientz (New Jersey Home Health Assembly); Paul Langevin (New Jersey Association of Health Care Facilities); Jane Majcher (New Jersey Department of Banking and Insurance); Christine Carlson-Glazer (University Health System); and Jonathan Metsch (Jersey City Medical Center).

Marilyn Dahl, John Calabria, Frances Costa, Martey Dodoo, Barbara Goldman, and Emmanuel Noggoh represented the New Jersey Department of Health and Senior Services.

Minutes from Previous Meetings. Revised October 18 minutes and draft November 15 minutes were distributed to work group members during the week of December 11. Marilyn Dahl invited group members to forward any comments on or corrections to the minutes to her; none were made during the December 20 meeting itself.

Next Steps for the Work Group. The work group agreed to review as much of the draft report outline as possible during the December 20 meeting and forward comments on the remainder of the outline to Marilyn Dahl via e-mail by Friday, January 5 (mdahl@doh.state.nj.us). Valerie Cheh and Leslie Foster will prepare a draft report, based on members' comments, by late January. The draft will be distributed to the entire work group. The group agreed to meet to finalize the draft on **Wednesday, February 7, from 11:00 a.m. to 1:00 p.m.** at its usual meeting place. Work group members were asked to submit copies of any documents that they would like to attach to the report as appendices. Marilyn noted that the final report will be circulated to stakeholders.

NJHA Analysis of Long-Term Acute Care Medicare Payments. Theresa Edelstein and Roger Sarao of the New Jersey Hospital Association (NJHA) presented an analysis of the potential revenue-generating effect of long-term care hospitals (LTACs). One hypothetical scenario suggested that LTACs would generate $66 million in Medicare revenues beyond current Medicare payments for what the analysis defined as potential LTAC patients. To reach this projection, NJHA assumed that a certain proportion of "outlier" acute-care patients (those whose stays exceed the national geometric mean) would be transferred to LTACs.

It was noted that although NJHA and Mathematica Policy Research, Inc. (MPR) used different kinds of assumptions in analyzing the potential effects of LTACs on revenues and Medicare acute-care length of stay (LOS), respectively, their conclusions were not dissimilar. The work group agreed that its final report should include a discussion of both analyses and how they compare with each other.

Some group members went on to note factors, such as physician acceptance of LTACs, that had not been accounted for in either the NJHA or MPR analyses. Most of the work group seemed to

agree that individual hospitals, or other facilities considering converting to LTACS, would have to take such factors into account during their own cost-benefit analyses. It was further noted that questions about such issues as practice patterns and capacity were rightly left to the delivery system, while the state addressed issues such as quality, access, and the impact of new initiatives on the state budget.

Discussion of Draft Outline. The work group began reviewing the draft outline point by point, leaving off at the final chapter, on possible policy remedies. Marilyn asked the group to e-mail to her their feedback on the final chapter (as well as additional comments on previous chapters). In particular, she seeks comments on the section titled, "What Providers Can Do."

The work group's comments on the draft outline will be incorporated into the draft report (to be prepared by MPR). A summary of comments appears below.

- Chapter I, Parts A and B
  - No comments.
- Chapter I, Part C
  - Include Pennsylvania and New York as comparison states, if possible.
  - Include comparison data on and discussion of managed care penetration rates.
  - Examine comparative data on costs per Medicare admission, if possible, to explore the hypothesis that New Jersey physicians practice differently (for example, do not discharge patients until all medical tests are complete). The "Dartmouth Atlas" was suggested as a possible source of such data. Include other comments about differing physician practices (as set forth in previous minutes and written comments of Dr. George Hare).
  - Note that New Jersey's in-state LOS differences (by hospital type, for example) mirror national patterns.
- Chapter II, Part A
  - In addressing working hypothesis # 1 (New Jersey's Medicare LOS should not exceed national average) and discussing what makes New Jersey different from other states, report should distinguish between factors beyond and within its control.
- Chapter II, Part B
  - It was noted that discharge decisions are frequently made by doctors, bed availability, or source of coverage in cases requiring transitional sub-acute care. In cases requiring lifetime placements, however, consumer choice is more often exercised.
  - In its discussion of New Jersey home health care, the report should note the bifurcation of the state's CN regulations, the state's historical practice patterns, and the emphasis New Jersey places on care quality (as evidenced through its licensing regulations, for example).

- The report should avoid broad statements such as, "A majority concluded that the expansion of post-acute care options is [is not] likely to harm existing post-acute care providers." It should take a more nuanced approach, emphasizing that it is impossible to gauge the potential for harm without knowing what "expansion" means exactly. It was also noted that the extent of patient overlap across provider types will affect providers' viability.
- The report should warn that some initiatives that would lower Medicare LOS in acute-care hospitals might have unintended consequences in other parts of the state's health system.
- The report should explain why the work group examined hospital management indicators, as they were not meant to be direct predictors of LOS.

- Chapter III
  - The work group was asked to e-mail comments on this section to Marilyn Dahl.

- General Comments
  - The report should use more explanatory language than the outline suggests it might, and it should include a glossary of terms.

December 20 Handouts. Various NJHA materials on LTACs.

APPENDIX D

SUBMISSIONS BY COMMITTEE MEMBERS

January 5, 2001

Marilyn Dahl
Senior Assistant Commissioner
NJ Department of Health & Senior Services
PO Box 360
Trenton, NJ 08625-0360

Dear Ms. Dahl:

You have requested members of the Post Acute Care Work Group to provide comments on the draft outline circulated via your December 26th memo. Following please find my comments on the outline.

There is certainly agreement on the fact that the Medicare LOS for New Jersey Hospitals exceeds the national average. However, it is problematic to base a need to solve the issue on the negative impact it has on hospital financial performance. It appears from the outline that there is no regard for concern on patient outcome or improved health care delivery systems.

The outline fails to acknowledge lack of reimbursement for services throughout the continuum. Reductions in reimbursement have restricted access to services for patients. There may be services or resources available but these services may not be accessible due to limitations on reimbursement.

The inability to influence physician discharge patterns should not be basis upon which a new service provider is developed.

The outline states that Medicare beneficiaries appear to use less post acute services. It does not acknowledge the fact that a review of the data reflects what may be inconsistent coding of discharges. Additionally, the grouping of certain types of discharges under certain categories is also misleading and fails to acknowledge services that may be provided at home or in other health systems (i.e.: VA).

The outline indicates that skilled nursing facilities and home health agencies need to promote the growth in the supply of nurses and home health aides, respectively. This is a cavalier statement given the state's effort to cut reimbursement for services through the Medicaid program. Many nursing homes care for a significant portion of Medicaid patients in their facilities. Reimbursement does not cover all cost of services and the state has delayed the

payment of additional reimbursement for staffing costs in the last budget cycle until the last quarter of the fiscal year. This is exacerbating the staffing issue. Additionally the Governor has contributed to the public image problems of nursing homes on the state by repeatedly stating that "no one should have to go to a nursing home." While I support the concept that only those individuals who require nursing home care should be in one, the services provided in these facilities will continue to be a vital part of the healthcare delivery system. The negative images and inequitable regulation contribute heavily to the staffing problem.

I look forward to a fuller discussion on the completed report.

Sincerely,

June A. Duggan
President, CEO

CAMDEN COUNTY
HEALTH SERVICES CENTER

Woodbury-Turnersville Road
P.O. Box 1639
Blackwood, NJ 08012
856.374.6500

November 16, 2000

Ms. Marilyn Dahl
Senior Assistant Commissioner
Health and Senior Services
John Fitch Plaza, 8th Floor
P. O. Box 360
Trenton, NJ 080625

Dear Ms. Dahl:

I have found the meetings regarding post acute care very interesting, but also frustrating. Although statistics and research are vital in health care delivery, the answers to why ALOS is higher in New Jersey than the rest of the country will only be found with some degree of accuracy by meeting with the clinical people who do this on a daily basis. Surveys, comparisons with other states, will not define New Jersey. New Jersey, I believe, as an example still has a senior population greater than that of Florida. We are an eastern state that practices a different type of medical practice and management. Tend to more studies as an example.

From a physician's perspective I would have you entertain the following reasons that may be associated with increased length of stay and what we really need to know. This is obviously a multifactorial problem.

1. The senior patient being admitted to the acute care facility and then discharged into the community or to other facilities has significant co-morbidities. This usually dictates greater care needs regardless of where they go.

2. We need to know the social structure of the patient being discharged to home. We need to have discussions early in the course of the hospitalization to determine the feasibility of community care, assisted living, or long-term care. This does not enter into the discussion obviously, of LTAC.

3. We need to know the economic status of the family when we consider sending the patient back into the community, and what are the support mechanisms available within the family. Again, early discussion.

4. What are the resources available in the community?

5. Patients are being discharged earlier from hospitals and then being re-admitted to the acute care facility within one to two days, sicker. This requires a longer, second hospitalization, usually. These are particularly patients from long-term care facilities.

6. Families requested discharge be held up for another "day or two" since they have not made that decision on where their loved one will go. This again deals with placement in a long-term care facility. They do not make these visitations when requested.

7. Physicians do keep patients longer in acute care facilities, particularly if it means completion of one or two days more of intravenous drug therapy. This is not a money situation, but one of trying to make a sick patient's transition into the community simpler.

8. Physicians do keep patients longer in order to complete x-rays in the hospital facility rather than attempt to discharge and do as an out-patient. This would be the frail, elderly who just recovered from an acute illness. This only deals with a specific type of patient.

9. An acute care facility not discussing early in the course of admission the needs of the patient going back to a long-term care facility is a problem. Many are readmitted with the need for high-acuity care. Long-term care facilities may not be able to meet those needs. As a result, refusal of readmission because of the inability to meet patient needs occurs, and until the patient is more stable.

10. Ambulance availability is a problem at times, particularly knowing that return to a long-term care facility especially is last on the transfer late. Lateness of return occurs frequently and is not acceptable because of staffing and the acuity of needs, e.g. medication availability.

11. Communication in all areas is frequently poor.

12. If abuse of discharge parameters, and I believe from the discussion this is the northern counties, they should address the issue on a hospital-hospital basis, as I noted at the last meeting. The responses that were given are really not valid in my mind and somewhat insulting.

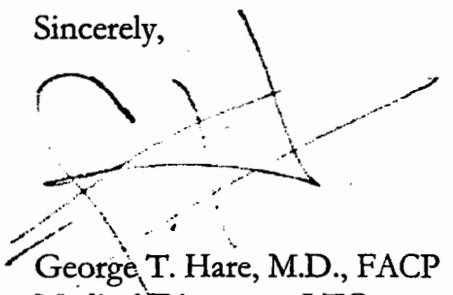
13. No matter what is discussed, reimbursement is an issue. It is increasingly difficult to recruit and retain staff so that a facility may function in a quality manner. To be able to meet the financial requests of applicants (compared to other states) is important. To be able to open new programs whether within a facility or in the community is vital. To keep our resources open in the community to provide outpatient care is essential.

The above are some reasons and needs to be known if length of stay is to be decreased. As I noted in the beginning it is hard to compare us with other states such as California. Only by hearing and knowing the problems from those who face them will answers surface. Remember, these are problems on local levels.

Finally, I take exception to the comments that are made about physicians. Physicians are not the problem here and certainly it is insulting to be told that this is on a monetary-reward basis. It is incredulous. Today, because of reimbursement, managed care organizations, physicians cannot afford to do this. Many physicians go to more than one hospital, multiple long-term care facilities, assisted living facilities and they don't have time to keep patients long term within any acute care facility. This is especially true if there is only one or two patients in an acute care facility while in other areas they have multiple.

I send this to you as my thoughts. What you are attempting to do I believe is important. I believe, as I stated, that at some point sitting down with the clinical people, physicians, nurses, social workers may be extremely valuable. I thank you for taking the time to read this and I would be glad to discuss this with you.

Sincerely,



George T. Hare, M.D., FACP
Medical Director – LTC

cc: Commission Grant
Board of Trustees, MSNJ
GTH:mer

Home Health Assembly

February 7, 2001

To: Marilyn Dahl
Sr. Assistant Commissioner
NJ Dept. of Health & Sr. Services

From: Carol Kientz, RN, MS
Executive Director
Home Health Assembly of NJ

Re: Comments on Post Acute Care Work Group Report

The Home Health Assembly of N. J. thanks the Department for this opportunity to clarify the perspective of our home health and home care provider members regarding aspects of the PACWG Report relative to their services.

While New Jersey has fewer Medicare-certified home health agencies per Medicare beneficiary than the national average, the patient care capacity of our state's Medicare-certified agencies is significantly greater than in most other states – by as much as five to 10 times more, on average. A correlation between number of agencies and utilization or visits per client is not proven. As an assumption, it remains open to consideration of other variables including practice patterns, hospital/ physician referral patterns, and discharge planning capabilities.

Data from 1996 through 1998 also does not reflect the many changes nationwide which have taken place in Medicare home health utilization since the inception of the Medicare Interim Payment System in 1998, and the Medicare Prospective Payment System in late 2000. The first true year of Medicare home health prospective payment system activity is 2001, and thus we can only speculate on the utilization patterns which home health agencies will need to develop throughout the country to adapt to this major change – equivalent to the inception of the DRG system of payment for acute care hospitals. Within the industry, it is anticipated that other states will continue to look more and more like New Jersey.

Any conclusion that this problematic data should drive the state to reconfigure its Certificate of Need process for home health agencies is therefore open to much debate. Suffice to say that the Home Health Assembly heartily concurs with the recommendation that expansion of any such post-acute care options be considered only with appropriate caution, oversight, and ongoing evaluation of the positive and negative impacts on existing providers, consumer needs, and health care system costs.

In addition, it is crucial to recognize that no official (or unofficial) data exists on current capacity, utilization, and referral activities of New Jersey home health agencies. The Dept. of Health put such data collection "on hold" in 1993 and nothing further has happened since that time. No regulatory action as major as revision of the Certificate of Need process can be undertaken without some data platform to support that action.

It is also vital to recognize the important role played by non-certified home care agencies in New Jersey. We have approximately 250 such agencies, both non-profit and proprietary, licensed by the Division of Consumer Affairs and delivering significant volume of skilled professional services as well as paraprofessional home health aide services to Medicaid PCA and waiver program clients, private clients, and other special category clients. Many Medicare patients do not meet Medicare home care criteria at the point of hospital discharge, and thus non-certified agencies may appropriately be called upon to meet their needs. Unfortunately, New Jersey also lacks any data whatsoever on service delivery and utilization patterns of non-Medicare certified agencies.

Finally, serious consideration must be paid to the very real shortage of healthcare workers – both professional and paraprofessional – confronting this and other states. The shortage has been growing over the past year, and research predictions indicate it will increase over the next decade. Reasons are many and varied, but one of the unavoidable factors is inadequate health system reimbursement from Medicare, Medicaid, managed care and other payers over the last several years. The shrinking ability of home care agencies, hospitals and long term care facilities to put enough dollars into recruitment efforts is directly related to their shrinking reimbursement. At the same time, we are confronted with shrinking enrollments in nursing schools and home health aide training programs. The aging healthcare workforce is moving toward retirement or alternate and less difficult employment.

For home care agencies, recruitment is complicated by the need to travel to clients, as well as the imposition of new, costly and frustrating regulatory burdens – especially for our home health professional nursing staff. The volume of paperwork is the primary reason cited over the past year for nurses to leave home health positions in New Jersey, and a major reason why potential recruits are deciding not to accept positions. Clearly, solutions to this shortage are not all within the power of health care employers. Concerted joint effort with state regulators and payers is key to finding solutions. Agencies are diligently pursuing efforts to make the work environment as satisfying as possible, and to provide the necessary pay and benefit incentives to attract sufficient staff. But they do not hold the "trump cards" to reverse this situation.

The Home Health Assembly of N. J.
14 Washington Road, Suite 211
Princeton Junction, N. J. 08550

David G. Kostinas & Associates

Health Care Business-Brokering • Market Studies & Analysis • Regulatory Issues & Compliance

David G. Kostinas

February 24, 2001

Marilyn Dahl, Senior Assistant Commissioner
NJ Department of Health & Senior Services
Office of the Commissioner
P.O. Box 360
Trenton, New Jersey 08625-0360

Re: Post Acute Care Work Group

Dear Ms. Dahl:

I would like to commend you for your efforts to coordinate the proceedings of the Post Acute Care Work Group over these past nine months. The members of the group were very diverse in their opinions of New Jersey's health care system, however you were tactfully able to keep us focused on our original outline and goals.

As a follow-up to our last meeting, I would like to reinforce my suggestion that the Department immediately conduct a survey of acute care hospitals, special hospitals and other health care facilities to identify all patients who are medically ready for discharge to a long term ventilator care unit. This survey request is consistent with N.J.A.C. 8:H-1.6 (d)1, which requires the Department to conduct such a survey at least once every two years. The last survey conducted by the Department was completed in 1995. I respectfully request that this be included in the recommendations of the Post Acute Care Work Group's Final Report.

I enjoyed working with you in this worthwhile effort and I am confident that our recommendations will help to ease some of the barriers to the timely discharge of patients from New Jersey's acute care hospitals.

Sincerely,

David Kostinas

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NJHA
NEW JERSEY HOSPITAL ASSOCIATION

February 14, 2001

Christine Grant, MBA, JD
Commissioner
New Jersey Department of Health & Senior Services
John Fitch Plaza
8th floor
Trenton, NJ 08625-0360

Dear Commissioner Grant:

As a member of the DHSS Post Acute Work Group, I would first like to commend Marilyn Dahl and her staff for the way in which they managed the challenging task of obtaining information and feedback from all the stakeholders, providing all members with the opportunity to voice their ideas and opinions and keeping the group focused and on course. The issues we have discussed during the last several months are complex and, in some cases, emotionally charged. It is to the staff's credit that the PAWG has actually been able to deliver a report of findings and recommendations for your consideration.

Overall, NJHA believes that the report fairly and accurately reflects the sentiments of the PAWG. However, we are concerned about a few items as detailed below.

Rehabilitation hospitals and skilled nursing facilities

The report suggests that increased competition between these providers can be achieved by easing restrictions on who can be admitted to rehabilitation hospitals, presumably through modification of the three-hour rule. As NJHA has maintained throughout the two-year discussion of this issue, there are patients in hospitals who never gain access to rehabilitation hospitals because they are too sick to tolerate three hours of therapy beginning with the day of admission. These same patients do *not* go to skilled nursing facilities until well after their acuities have resolved because SNFs cannot afford to care for these high acuity, complex patients. Modifying the three-hour rule would enable rehabilitation hospitals—which are, by definition, medically equipped to care for these patients—to ease them into a three hour-per-day therapy regimen over a 10-day period. Therefore, this is not an issue of competing for the same patient, but of opening up access to a patient population currently remaining in acute care far too long.

Special care nursing facility – ventilator beds

The Department's planning regulations (N.J.A.C. 8:33H-1.6(d) require that a survey of acute care hospitals, special hospitals and other healthcare facilities be done at least every two years to identify all patients who are medically ready for discharge and who are in need of transfer to a facility that provides long-term ventilator care. NJHA is not aware of such a survey having been conducted by the Department during the last two years.

Occupancy levels in existing SCNF ventilator units are generally close to 100 percent at all times. While the creation of long term acute care hospitals would address the needs of unstable and/or weanable acute ventilator patients waiting to be discharged from acute care, LTAC will not address the needs of chronic, stable vent patients who are often Medicaid patients. We believe that the Department should undertake the above-referenced survey to determine whether a need for additional nursing home-based ventilator beds exists.

Home health care

The report suggests that New Jersey's home care providers need to bolster their marketing efforts; however, it does not take into account the home care services provided by the substantial, noncertified part of the home health industry. In addition, an all-out marketing campaign at a time when agencies are adjusting to a new Medicare reimbursement system and struggling with unprecedented shortages of aides and professional nurses is premature. It would be irresponsible to raise expectations and not be able to deliver the services required.

Long Term Acute Care Hospitals

NJHA believes that the report dwells on the perceived overlap in patients served by LTACH, SNF and rehabilitation hospitals. It does not address the fact that there must be something very different about LTACH-level patients, even if they are in the same DRG as a SNF or rehab patient, because we have sufficient capacity in the SNF and rehab industries to admit these patients and they are not being admitted. This is evidenced by the excessive Medicare length of stay in hospitals at the same time that occupancy rates in SNFs are declining. These patients are clearly not being admitted to these settings because their needs exceed the level of care and commensurate reimbursement that can be provided.

Non-Capacity Issues

While the report alludes to regulatory barriers and constraints, it does not cite New Jersey's regulatory environment as a potential factor contributing to hospitals' Medicare length of stay problem.

NJHA believes that there is far too much content devoted to the lingering effects of rate-setting on the management of New Jersey's hospitals, particularly when you consider that rate-setting ended almost a decade ago. It is far more likely that the other issues cited as non-capacity factors combined with the regulatory environment are the key issues.

The report implies that New Jersey's hospitals are different with respect to discharge planning from hospitals around the country, but offers no evidence of this. While we can all agree that discharge planning is critical to reducing length of stay, if hospitals in the comparison states also struggle with turnover of discharge planners, lack of knowledge of options for post-acute care and the like, then New Jersey is not distinct. We suggest that Mathematica explore the status of discharge planning in the comparison states before placing so much emphasis on this factor.

The report indicates that the county welfare agencies were not interviewed as part of the exploration of how determining Medicaid eligibility might affect length of stay. NJHA's experience has been that the process for determining clinical eligibility, under the purview of DHSS, is not the cause of most delays in discharge. Rather, it is the process for determining financial eligibility that leads to delays. We recommend that staff from the Department of Human Services be consulted with respect to the process used in the CWAs in different counties.

NJHA has appreciated the opportunity to serve on the Post Acute Work Group and to provide you with these additional comments.

Sincerely,

Theresa Edelstein
Vice President
Continuing Care Services

cc: Gary S. Carter, NJHA
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LONG TERM ACUTE CARE HOSPITALS

IN NEW JERSEY

WHITE PAPER

NEW JERSEY HOSPITAL ASSOCIATION

JUNE 2000

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EXECUTIVE SUMMARY

In February, the New Jersey Hospital Association convened a work group to examine the need for and potential approaches to establishing long term acute care (LTAC) hospitals in New Jersey. This was in response to member hospitals' inquiries concerning LTACs and to the convergence of issues related to length of stay, reductions in Medicare reimbursement, exertion of downward pressure on hospital revenues by managed care organizations and the increasing reliance on outpatient settings. All of these issues have put New Jersey's hospitals at a significant competitive disadvantage in the marketplace.

During its deliberations the work group has considered the regulatory, financial and clinical aspects of LTACs, as well as the potential impact of LTACs on other providers. Data from the 1998 Uniform Bill Data Set was analyzed to determine:

- the volume of patients that could be served in LTACs and their geographic distribution;
- the potential cost savings for acute care hospitals;
- the current discharge destinations for "LTAC-type" patients; and
- the approximate amount of new federal revenue that could be generated by LTACs in the state.

The work group also invited national experts on LTACs to address clinical and financial issues with NJHA's Physician Executive Constituency Group and Chief Financial Officer Constituency Group. Out of these discussions came compelling reasons to develop LTACs in New Jersey:

- help decrease Medicare acute care length of stay by ***as much as 10 percent***;
- generate ***as much as $50 million*** in additional federal revenue for the state;
- provide a ***clinically appropriate and financially viable use*** for underutilized or vacant hospitals;
- ***generate revenue*** for hospitals through lease payments and the purchase of ancillary services;
- enhance the quality of care and ***improve outcomes*** for high acuity, long-stay patients by providing services in a more interdisciplinary, clinically specialized setting;
- provide patients with ***access to a part of their Medicare benefit*** that, heretofore, has not been available in New Jersey;
- ***minimize financial losses*** resulting from long acute care lengths of stay; and
- allow for ***more effective use of the continuum***, including home health, assisted living, rehabilitation hospitals and nursing facilities because LTAC physicians and nursing staff will have more time to discern the post-acute needs of the patient. Therefore, LTACs may serve as a more effective "gatekeeper" for the continuum than general acute care hospitals.

As stated in the Final Report of the Advisory Commission on Hospitals, the rapid deterioration of hospitals' financial performance makes the need for a streamlined approach to structural changes in the industry critical. The Commission recommended both a Hospital Transition Group within the Department of Health and Senior Services (DHSS) to coordinate state actions to facilitate change and a Post-Acute Care Study Group to assess the availability of services and financial incentives that affect acute care length of stay. These efforts are already underway. It was within this framework that NJHA's LTAC Work Group formulated its recommendations, as follows:

- License LTACs through a demonstration project approach, while not foreclosing the opportunity for other LTACs to develop through the transfer of acute care licenses. This recommendation is being made in recognition of the significant operational, clinical and financial issues that must be considered before a provider decides to pursue the establishment of an LTAC.

- Work together with the hospital, comprehensive rehabilitation and nursing facility industries to evaluate the overall impact of LTACs on placement of patients to ensure that patients are being served appropriately and to evaluate the concerns expressed by post-acute providers regarding the impact of LTACs on their operations.

- Together with the LTAC industry nationally and within New Jersey, develop acceptable outcome measures that can be used to evaluate the performance of LTAC providers.

- Work with NJHA to analyze the financial exposure of LTACs related to serving the charity care population absent reimbursement.

Background on LTACs

A long term acute care hospital (LTAC) is a fully licensed acute care or specialty hospital that maintains an average length of stay of at least 25 days annually. An LTAC specializes in the interdisciplinary, physician-led treatment of patients with catastrophic or acute illness/injury superimposed on complex or multiple co-morbidities. A critical mass of patients is necessary to allow for the development of specialized hospital programs and technology for intensive medical management to optimize the patients' medical and functional capacity.

According to the March 1999 report to Congress by the Medicare Payment Advisory Commission (MedPAC), there were about 200 LTACs across the United States. Since that report was issued, this number has increased to approximately 280, with approximately 200 freestanding and 80 hospital within hospital LTACs. While many of the most well-established LTACs are located in the northeast (e.g. Boston, Philadelphia), much of the recent growth has been in southern states (e.g., Georgia, Texas). Growth has been estimated to be 12 percent per year for the last two to three years. In addition to their main facilities, LTACs may establish satellite facilities. These arrangements are, however, coming under increasing scrutiny by the Health Care Financing Administration and are likely to be negatively impacted by the recent provider-based designation provisions of the final rule on outpatient prospective payment.

LTACs fill an important role in the continuum because they address the needs of a growing patient population that cannot be effectively treated in more traditional health-care settings. Overall, this population represents approximately 2 to 3 percent of total discharges from acute care, but can represent as much as 40 percent of the critical care dollars spent by acute care hospitals. LTACs provide a range of intensive services including trauma and cancer treatment, respiratory therapy for ventilator-dependent patients, pain and wound management and rehabilitation. Approximately one-third of all LTACs specialize in treating the ventilator-dependent.

The majority of LTAC patients are elderly, medically complex patients who are dependent on life support systems such as ventilators, parenteral nutrition, respiratory and cardiac monitoring and dialysis as the result of trauma, extensive surgery or disease. Most patients in LTACs have several diagnoses, indicating multiple co-morbidities and are medically unstable. On a daily basis, patients usually require physician intervention and follow-up, 7 to 8 hours of nursing care (60-70% professional; 30-40% paraprofessional), 1.5+ hours of respiratory therapy and up to 2 hours of rehabilitation therapy. The most common diagnoses admitted to LTACs include pulmonary (DRGs 79, 87, 88, 89, 475, 483); medically complex (DRGs 12, 14, 107, 110, 127, 316, 468, 486) and wound care (DRG 271). A higher share of daily patient costs is attributable to ancillary costs (49%) relative to other post-acute settings (42% in rehabilitation hospitals and skilled nursing facilities (SNFs)).

The reimbursement picture is different for LTACs than for other acute care hospitals. LTACs are exempt from acute care PPS under the current rules. This is because when the Diagnostic Related Group system was created, HCFA found that DRGs did not adequately account for extremely high cost, high acuity patients. Instead, LTACs are paid according to Section 1886(b) of the Social Security Act, as amended by the Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982. TEFRA facilities are reimbursed on a reasonable cost basis, limited by a specific target amount per discharge. Each hospital has a separate target amount that is calculated based on the hospital's cost per discharge in a base year, which is adjusted annually. Under certain extraordinary circumstances, an adjustment may be made to the ceiling imposed on the hospital's costs.

The Balanced Budget Act (BBA) of 1997 imposed a system of caps on TEFRA target amounts for cost reporting periods from Oct. 1, 1997 through Sept. 30, 2002. Under this new system, a hospital's payments are not based solely on its own cost experience, but on the cost experience of other hospitals. For existing LTACs the cap in FY2000 is $39,712; for new LTACs in FY 2000 the cap is $22,649. The BBA also provided for a wage adjustment to the caps effective for cost-reporting periods beginning on or after Oct. 1, 1999. For New Jersey, this results in a TEFRA cap of approximately $25,000 per discharge.

Typically in an LTAC the payor mix is 80 to 85 percent Medicare, with the remaining 15 to 20 percent covered by private insurance, managed care and Medicaid. The case-mix index in an LTAC is generally higher than in a general acute care hospital. This is because there is a cluster of high acuity patients in the LTAC. Cost per patient day is reported to be about 25 percent less in the LTAC than in a general acute care hospital. Often, this is because the level of acuity related to this patient would require an ICU level of care in a general acute care hospital rather than general medical/surgical care.

Lengths of stay in an LTAC generally average 30 days, with approximately 30 to 40 percent of discharges being to the community. Another 20 to 25 percent of patients expire due to the clinical vulnerability of the patient population. The third most common discharge destination is to a skilled nursing facility for custodial care, another 25-30 percent. A small percentage, about 2 percent, of patients are discharged to hospice.

Freestanding LTAC Model

The most typical type of LTAC is the freestanding model with approximately 200 operating throughout the country at this time. A freestanding LTAC is a physically separate facility that includes all the departments required of a general acute care hospital (i.e., laboratory, radiology, pharmacy, food service, etc.). They range in size from 50 to120 beds. Freestanding LTACs can be owned by for-profit or not-for-profit corporations, with the management of the facility handled internally or contracted out. A freestanding LTAC can be created by either converting a former general acute care hospital or building an entirely new facility. In the case of conversion, providers must consider the amount of physical plant renovation that would be necessary to make the LTAC compliant with current requirements. Waivers for physical plant requirements that existed in the acute care hospital may not carry over in a conversion process. Another consideration is what new waivers of service requirements would be requested.

Financing required to establish a freestanding LTAC depends on various factors, including the size of the facility, as well as whether it is new construction or renovation of an existing facility. Once operational, the LTAC must function for a minimum of six months under the acute care PPS to establish its average length of stay of greater than 25 days to be certified by HCFA as an LTAC.

The elements of success for a freestanding LTAC are the same as for a general acute care hospital – position in the community and the marketplace is critical. Further considerations are:

- Are there hospitals within a 15 to 25 mile radius that have the DRG volume to be referral sources?
- Is travel time for patients' families an issue?
- Will the facility have access to medical staff with specialties in respiratory and critical care?
- Is the facility close to the healthcare community (physicians, others)?
- Are the acute care discharge planners knowledgeable about and supportive of the LTAC concept?
- Will managed care organizations be willing to contract separately for LTAC services?
- If an outside company is going to operate the LTAC, is there a cultural match between the "owner" and the management company?

As a result of the BBA of 1997, the caps on TEFRA targets (approximately $25,000 for a new LTAC in New Jersey) coupled with the reduction in reimbursement for capital from 100 percent to 85 percent of costs have made the opening of new freestanding LTACs less appealing than in the past. For an LTAC to benefit from bonus payment available under TEFRA, it must come in at 10 percent below the cap, or about $765 perday. This is difficult to accomplish with all the ancillary and overhead costs of a freestanding facility. In addition, for a freestanding LTAC to thrive it must have good relationships with secondary and tertiary hospitals in its region, and they must have the volume to support an LTAC of roughly 70 to 80 beds.

Hospital-Within-Hospital LTAC Model

A third party-owned acute care hospital occupying part of a building also used by another "host" acute care hospital is known as a hospital-within-hospital LTAC. There are approximately 80 hospital-within-hospital LTACs in the country, and this number is growing. In fact, most of the growth in LTAC during the last three years has been in this area. A hospital-within-hospital LTAC must be separately owned and licensed, must maintain a separate board and administrative structure and must have a separate medical staff. Financing needed for the development of a hospital-within-hospital LTAC is approximately $1-1.2 million. The hospital must operate for a minimum of six months under acute care PPS to establish its average length of stay at greater than 25 days before it can be certified by HCFA as a long term acute care hospital for Medicare payment.

Usually the LTAC leases space from the host hospital and purchases ancillary services (i.e., food service, housekeeping, laboratory, radiology, etc.) from the host. There is no limit on the amount of purchased services if host hospital referrals are limited to no more than 25 percent of the LTAC's admissions annually. If the referrals exceed 25 percent annually, then no more than 15 percent of the operating expenses of the LTAC (i.e., ancillary services) can be purchased from the host. In such a case, the LTAC would have to purchase additional services from another vendor (either another hospital or an independent vendor).

In general, hospital-within-hospital LTACs have a better opportunity to manage within the cost cap established by the BBA of 1997 for PPS-exempt facilities. This is because they do not have all of the overhead costs of a freestanding LTAC, and they may be able to contract for ancillary services with the host at a better rate than in the marketplace.

Some other considerations with respect to this model are:

- Is there sufficient patient volume to support the LTAC? Bed size must be tested for financial feasibility. Thirty to 40 beds are typical, but each situation should be evaluated on its merits.
- Is the location within the host hospital convenient for medical staff and families?
- Are there other hospitals within a 15 to 25 mile radius that could be referral sources in addition to the host?
- Is the medical staff of the host hospital supportive of the LTAC concept?
- Are the acute care discharge planners knowledgeable about and supportive of the LTAC concept?
- Will managed care organizations be willing to contract separately for LTAC services?
- If an outside company is going to operate the LTAC, is there a cultural match between the host and the LTAC operator?
- Will the host hospital benefit from the presence of the LTAC through lease payments, contracts for ancillary services, reduction in length of stay?

Reimbursement Present & Future

Typically in an LTAC the payor mix is 80 to 85 percent Medicare, with the remaining 15 to 20 percent covered by private insurance, managed care and Medicaid. The case-mix index in an LTAC is generally higher than in a general acute care hospital, while cost per patient day is reported to be about 25 percent less than in a general acute care hospital. Often, this is because the same patient would be in an ICU in a general acute care hospital rather than on a general medical/surgical unit.

Under this scenario it appears that New Jersey would still receive adequate Medicare reimbursement under PPS to make LTACs financially viable going forward, as long as providers begin by admitting LTAC patients with a sufficiently high level of acuity. HCFA has notified Congress that it anticipates that it will not be able to meet the deadline established in the BBA (i.e., Oct. 1, 2002), but it is not clear how much more time HCFA will need to develop the PPS. Some experts have suggested that a PPS will not be implemented before 2004.

Medicaid

A significant proportion of LTAC patients have Medicaid as a secondary payor, which means that co-payments and deductibles for these dual-eligible patients would be paid for by Medicaid. However, this should not result in a larger Medicaid outlay for the state since these co-payments and deductibles would have to be paid in other settings (i.e., acute care) as well.

Beyond this, while most patients served by LTACs are covered under the Medicare Part A benefit because most are over the age of 65, some younger patients may only have Medicaid coverage. Since LTACs are licensed as acute care hospitals, payment rates would be presumed to be the same as in the general acute care setting.

Charity Care

In New Jersey, acute care hospitals must admit all patients regardless of ability to pay. While most hospitals receive some reimbursement through the charity care formula, some do not receive any. LTACs would add another group of acute care hospitals into the "mix." It is difficult to predict with any certainty what the exposure on charity care would be for LTACs, but it is probably safe to assume that it will vary greatly by location because of the make-up of the population served.

Managed Care

To ensure appropriate payment for LTAC care, the LTAC would need to negotiate separate contracts with managed care organizations (MCOs). Education of the MCOs regarding the level and type of care provided by LTACs is essential to this process. It is reasonable to expect that MCOs would view LTACs favorably as a less expensive setting in which to render an intense level of service and achieve the desired high quality outcome.

Why Develop LTACs in New Jersey?

New Jersey's tertiary care hospitals typically have a significant volume of high acuity, long stay patients. These hospitals are seeking a way to reduce the significant costs of care for these medically complex patients whose outlier DRG payments are inadequate to offset the costs associated with a long stay. Such patients are difficult to place outside of the tertiary hospital, and because of the many physician specialists involved, there is a desire by the physicians to maintain control of the patient during hospitalization. However, tertiary hospitals also frequently need their ICU beds for other patients, and therefore, need an alternative location in which to place the long stay, multi-organ system failure (i.e., high acuity) patient.

According to 1998 Uniform Bill data, there were 10,032 discharges totaling 394,740 patient days in the 26 DRG categories NJHA has identified as most typical of the LTAC population. This translates into a bed need of between 1,400 and 1,700 LTAC beds statewide based on a conservative occupancy of 65 to 75 percent. Being able to discharge these outlier patients to an LTAC would

- help decrease Medicare acute care length of stay ***by as much as 10 percent;***
- generate ***as much as $50 million*** in additional federal revenue for the state;
- provide a ***clinically appropriate and financially viable*** use for underutilized hospitals;
- ***generate revenue*** for hospitals through lease payments and the purchase of ancillary services;
- enhance the quality of care and ***improve outcomes*** for high acuity, long stay patients by providing services in a more interdisciplinary, clinically specialized setting; and
- provide patients with ***access to a part of their Medicare benefit*** that, heretofore, has not been available in New Jersey.

Additional objectives for LTACs in New Jersey would be to:

- ***minimize financial losses*** resulting from long acute care lengths of stay; and

- allow for ***more effective use of the continuum***, including home health, assisted living, rehabilitation hospitals and nursing homes because LTAC physicians and nursing staff will have more time to discern the post-acute needs of the patient. Therefore, LTACs may serve as a more effective "gatekeeper" for the continuum than current acute care hospitals.

Other Provider Considerations

Whenever a new service is introduced into the healthcare marketplace, it is reasonable and necessary to consider the impact, if any, on existing providers. This is true even when it is unlikely that there is significant overlap in terms of the types of patients that will be served between two or more provider types. In the case of LTACs, it is important to attempt to achieve consensus among all provider types and state government, to the extent possible, on the role of LTACs in the healthcare delivery system

There are two types of providers that are likely to have concerns regarding the development of LTACs in New Jersey: comprehensive rehabilitation hospitals/units and nursing facilities.

Comprehensive Rehabilitation Providers

MedPAC indicated in its June 1998 report to Congress that, "*Compared to beneficiaries admitted to rehabilitation facilities, those who went on to long term care hospitals after an acute inpatient stay had a wider range of medical conditions. The largest numbers of patients had been assigned to DRGs for tracheostomy (DRG 483), stroke (DRG 14) major joint and limb procedures (DRG 209) and respiratory system diagnoses with ventilator support (DRG 475) These four DRGs accounted for about a third of all previously hospitalized patients in long term care hospitals.*" Throughout the country there are examples of hospital systems that have both an LTAC and a comprehensive rehabilitation hospital/unit where these services complement one another successfully.

Comprehensive rehabilitation providers typically serve patients with rehabilitation diagnoses who require at least 3 hours per day of physical therapy combined with either occupational therapy or speech language pathology. According to Medicare's requirements, 75 percent of patients admitted to a comprehensive rehabilitation setting must fall within 10 distinct diagnostic categories (including DRG 14 – stroke and DRG 209 – major joint/limb procedures). While continuing to meet this requirement, rehab hospitals have played an increasingly important role in the effort to decrease acute care hospital length of stay. They have done so by admitting more medically complex patients earlier in the acute phase of their illness. To further the effort to reduce acute care length of stay, the rehabilitation hospitals are working with the Department of Health and Senior Services (DHSS) to better reflect appropriate and generally accepted treatment practices in the licensure standards.

Therefore, based on the current profile of the type of patient served by comprehensive rehabilitation hospitals/units, it is reasonable to expect that overlap could occur with LTACs. LTAC providers may choose to serve some patients from within their host hospital or hospital system who would qualify for comprehensive rehab and still be able

to maintain a 25-day average length of stay. However, the LTAC prospective payment system may contain incentives for LTACs to strive for as high a case-mix index as possible to achieve maximum reimbursement. In this case, admitting too many rehabilitation patients might drive down the case-mix index in the LTAC. Depending on how these issues evolve, the development of LTACs may have a detrimental effect on comprehensive rehabilitation hospital providers.

The intent behind the LTAC guidelines is, however, to provide a setting that focuses on the ICU-level patient with multi-organ system failure who may need rehabilitation services as an adjunct service (usually for 1-2 hours per day depending on the patient's situation). When LTAC patients stabilize medically and progress to a level where they can tolerate a more aggressive rehabilitation regimen, they are usually discharged to a rehabilitation hospital. Exceptions to this scenario exist in cases where rehabilitation hospitals have been certified as LTACs such as Spalding Hospital in Boston. However, this is not the norm.

While comprehensive rehabilitation hospitals in New Jersey are admitting more medically complex patients, they are also anticipating a change in Medicare reimbursement to a prospective payment methodology beginning April 1, 2001. As in other PPS systems, it is likely that HCFA will provide incentives for rehabilitation providers to reduce length of stay and resource use in this new payment system. Such incentives could lead to rehabilitation providers needing to limit the number and types of complex patients they serve. This does not preclude, however, the development of partnerships between comprehensive rehabilitation providers and acute care providers in the development and operation of LTACs.

Nursing Facilities

Nursing facility providers will also have concerns about the development of LTACs in New Jersey. This will be especially true of the relatively small number (approximately 5 to 10 percent of the industry in New Jersey) of nursing facilities that offer "subacute" care. In general, subacute care throughout the country has not lived up to the expectation that it would deliver hospital level care at significantly lower cost. Partly this is because the Medicare PPS short-circuited subacute care by reducing payments. Other factors include:

- nursing facilities could not recruit and train the nursing staff necessary to deliver this level of care;
- daily physician involvement is not paid for by Medicare in the SNF setting; and
- consumers have not generally been accepting of the nursing facility as the setting of choice for this type of care.

Most "subacute" patients in a nursing facility setting today are moderate acuity patients requiring up to 3 hours of rehabilitation services per day. Their hospitalization prior to entering the nursing facility has usually been the result of a traumatic event such as a stroke or fracture. Many "subacute" patients in nursing facility settings have other conditions that complicate their ability to progress quickly in a rehabilitation regimen, while others have none and can be discharged back to the community within 20 days.

While a few nursing facility "subacute" providers can manage the care of stable respiratory patients, most cannot serve unstable respiratory patients who are typical of the LTAC population. The same holds true for cardiac and post-surgical patients who have been in the intensive care unit and still require intensive care services from nursing and respiratory clinicians.

Under SNF Medicare PPS, the patient typical of the LTAC population would not be desirable for a long term care facility to admit. This is because of the nursing hours required per day (7-8) that are mostly made up of registered nurses and licensed practical nurses (60-70%) and the significant ongoing cost of non-therapy ancillary services and pharmaceuticals. Even with anticipated adjustments in the Resource Utilization Groups (RUGS) Medicare rates on Oct. 1, 2000 to account for high-end users, the RUGS rates under SNF PPS are not projected to be adequate to cover the cost of caring for these patients

Approximately 20 to 30 percent of LTAC patients are discharged to a nursing facility after a 14-to-21 day LTAC stay. In fact, it is considered fraudulent to maintain patients in acute care (which an LTAC is) when they no longer meet the criteria for receiving that level of care. Patients discharged from an LTAC to a nursing facility still have access to all of their Medicare Part A SNF benefits, assuming they have not used them in a prior situation involving a nursing facility placement and they qualify for skilled level care according to Medicare's criteria.

According to 1998 UB data for New Jersey hospitals, approximately 30 percent of patients in the 26 DRGs typical of the LTAC population are discharged from acute care to a nursing facility. However, it is critical to remember that this is ***after*** they have remained in the hospital for 15 or more days beyond the average length of stay for their DRG. By that time, many of these patients are being discharged to a nursing home for custodial care. In some instances, they may receive "subacute" rehabilitation at the nursing facility and ultimately return to the community.

Another critical consideration is that the 1998 data do ***not*** reflect the impact of SNF prospective payment on discharge destination for these high acuity patients because PPS did not take effect in New Jersey until January 1999. It is reasonable to anticipate a reduction in the percentage of patients in these 26 DRGs who were discharged to SNFs because of the disincentives contained in the SNF PPS. The extent of the reduction is not yet known, although the General Accounting Office (GAO) reported to Congress in December 1999 that access to nursing facilities for patients requiring high-cost services such as expensive medications, infusion therapy, ventilator care, dialysis, wound care, chemotherapy and total parenteral nutrition had decreased. This was reported by 58 percent of 153 randomly selected hospital discharge planners surveyed by the GAO.

It is noteworthy that throughout the nation an estimated 10 percent of nursing facilities are in bankruptcy, largely related to the implementation of PPS. The national corporations involved in these bankruptcies (Vencor, Integrated Health Services, Mariner, Sun Health) have had minimal involvement in New Jersey's nursing home industry. However, Genesis Health Ventures, which owns approximately 45 nursing facilities in New Jersey, is in the process of restructuring its debt. Given the clinical demands of the LTAC population, the critical shortage of professional nurses with the skills necessary to meet these demands and the financial limitations posed by reimbursement, it does not appear that nursing facilities can or should admit these patients.

An alternative, however, is for partnerships to develop between nursing facilities and hospitals seeking to establish an LTAC. Enabling these partnerships would require the commitment and input of the industry and DHSS.

Criteria for Success

The following areas have been determined to be critical for an LTAC to be successful:

- DRG volume/regional referral base
  To succeed, it is critical that the LTAC is located in an area where it can draw referrals from more than its host hospital so that the viability of the LTAC is not solely dependent on the census of one hospital.

- Physician commitment
  Physician leaders and clinical specialists must be educated early in the process about LTAC so they can champion the effort once the LTAC is up and running.

- Bed capacity
  Throughout New Jersey there are beds available for LTAC use. These need to be evaluated in terms of their compliance with regulations before being put into operation, but ultimately will result in a reduction in the overall acute care capacity in the state.

- Financial commitment
  A hospital planning to establish an LTAC must be prepared for the initial outlay required, but more importantly, must be able to manage the operational outlay for at least six months under DRG payments prior to receiving Medicare certification as a PPS-exempt LTAC.

- Clinical expertise/commitment
  Hospitals must ensure that they either have or can attract the physician and nursing leaders and clinicians required to provide this highly specialized, intensive care.

- Management expertise/commitment
  Providers need to be prepared to develop the management expertise in this area if they are planning to establish a 501(c)(3) corporation LTAC. If they are planning to lease space to a proprietary company that will operate the LTAC, then they must do exhaustive due diligence to ensure that they enter a relationship with a reputable, experienced provider of LTAC services.

- Geographic accessibility
  Regardless of the LTAC model chosen, geographic access to the location of the LTAC for patients, families, physicians, staff and other sources of referrals is critical and must be carefully examined in terms of bed size and numbers of LTACs.

Physicians' Critical Role

Regardless of whether a provider elects to establish a freestanding or hospital-within-hospital LTAC, the buy-in and ongoing support of the medical staff of the referring hospital(s) is critical to the LTAC's success. The medical staff of the LTAC must be separately credentialed, but may include many of the same physicians who are members of the host/referring hospitals' medical staffs. The typical attending staff in the LTAC will be made up of pulmonologists, critical care specialists, internists and other specialists.

For an LTAC to be successful, physicians in the acute care hospital must accept the LTAC concept as an opportunity for their patients to receive high quality care in a focused, interdisciplinary environment that leads to fewer re-admissions to an acute hospital and more discharges to the community. Education of the physician community regarding LTACs must focus on patient benefits, as well as on the practice opportunities that LTACs offer to physicians.

The medical staff of the host/referring hospitals must recognize the LTAC medical staff as achieving high quality outcomes and ensuring that communication with the patient's primary care physician is ongoing. Referrals back to the primary care physicians are essential to establish trust between community physicians and LTAC physicians.

Improved Outcomes & Patient Satisfaction

As in the nursing facility and home health care industries, national quality outcomes research for LTACs is just beginning to emerge. However, data from well-established providers such as Life Care Management and Vencor strongly suggest that patients experience a high degree of satisfaction with the care they receive. In addition, discharge rates to the community are usually 30-40 percent, suggesting better outcomes than under the existing situation in New Jersey where these patients often go to other institutions for long term custodial care. Overall, patients who have received care in an LTAC are likely to have better clinical outcomes than those who either remain in acute care or make multiple transitions among healthcare settings.

Bed Need and Regionalization

According to NJHA's analysis of 1998 UB data, there is a potential need for 1,400 to 1,700 LTAC beds. This is based on the number of discharges and patient days in the 26 DRGs most typical of LTAC patients and assumed occupancy levels of 75 percent and 65 percent, respectively. When reviewed at the county level, the data showed that certain counties (Bergen, Camden, Essex, Hudson, Middlesex, Passaic and Union) had higher concentrations of these types of patients and could probably support multiple LTACs, assuming the hospital-within-hospital model is used. Other counties in the northwestern, western and southern parts of the state would most likely be able to support one to two LTACs based on the DRG volume. However, regionalization of any healthcare service raises questions concerning geographic access for patients and families, physicians, other healthcare professionals and potential employees. In addition, regionalization would probably require more aggressive promotion of LTAC services to ensure that appropriate referrals were being made from hospitals within the region.

Beyond the potential number of LTAC-type patients, there are several other factors that affect bed need. One such factor is the loss of outlier payments that would result from discharging these high acuity patients to an LTAC. To evaluate this, providers should conduct a comparative financial analysis to determine whether potential revenue from the LTAC would equal or exceed the DRG outlier payments currently received for these patients.

Another factor is whether the provider can afford to receive pro-rated DRG payments for patients it refers to the LTAC during the six-month period it takes for the LTAC to meet the length of stay criteria for HCFA certification. As mentioned previously, during this time period both the referring acute care hospital and the LTAC receive pro-rated DRG payments. This may not prove to be feasible for the acute care hospital from a day-to-day operations perspective.

Finally, there are all of the geographic and clinical considerations that must be taken into account before determining whether to establish an LTAC. Given these factors, it is unlikely that providers would seek to establish the number of beds suggested by the UB data.

Potential Certificate of Need Approaches

At this time the only way for a provider to establish an LTAC in New Jersey is to use an existing acute care license, one that is either owned or acquired, and convert some or all of the licensed beds to LTAC use. In at least one instance this is planned to occur in Essex County (Cathedral Healthcare System). At this time this avenue is rather limited since acute care licenses are not routinely available for transfer. In addition, the acute care license does not always become available in the area that has the greatest need for LTAC services. This does not generally allow LTACs to develop in response to need within a health planning framework.

Therefore, to approach the development of LTACs through a planning process that addresses unmet need among the long term, medically complex patient population, it is the recommendation of NJHA's LTAC Work Group that a demonstration project model be used. Based on this approach a limited number of projects would be licensed as determined by a thorough analysis of potential patient volume by county and for the state overall and by the development of application criteria (similar to those used in the inner city cardiac satellite demonstration or the bloodless surgery demonstration).

While the work group did consider the direct review certificate of need approach, it was believed that the length of time and resources involved in this process would unnecessarily delay the implementation of LTACs and would, therefore, prolong many of the problems faced by hospitals. In addition, a whole new need methodology would have to be created since the need for LTACs could not be determined using the acute care bed need methodology. This does not seem appropriate given the fact that a provider can acquire an acute care license now and convert the use of the beds to long term acute care through the Medicare certification process without any intervention by the state other than the approval of the transfer of the license. The time would be better invested in developing objective measures for a demonstration project to determine whether LTACs can contribute to resolving the issues faced by acute care providers and improve quality of care.

Licensure Standards

LTACs must be licensed as acute care hospitals by the state and must meet federal conditions of participation for Medicare. Therefore, a logical approach to the development of licensure standards for LTACs in New Jersey would be to combine acute care standards with Medicare regulations. It would also be necessary to determine which acute care standards (for example, emergency room services) would need to be waived for LTACs. Waivers might depend on whether the LTAC is freestanding or a hospital-within-hospital model.

Conclusion

The NJHA Work Group on LTACs recommends the following to the Department of Health and Senior Services:

- License LTACs through a demonstration project approach, while not foreclosing the opportunity for other LTACs to develop through the transfer of acute care licenses.

- Work together with the hospital, comprehensive rehabilitation and nursing home industries to monitor the overall impact of LTACs on placement of patients to ensure that patients are being served appropriately and to evaluate the concerns of post-acute providers regarding the impact of LTACs on their operations.

- Together with the LTAC industry nationally and within New Jersey, develop accepted outcome measures that can be used to evaluate the performance of LTAC providers.

- Work with NJHA to analyze the exposure of LTACs related to serving the charity care population.

NJHA looks forward to working with the Department on the development of LTAC in New Jersey.

NJHA
NEW JERSEY HOSPITAL ASSOCIATION

DRGs TYPICAL OF LTAC ADMISSIONS

Other Resp System OR Procedures with complicating condition	076
Respiratory Infections & Inflammations Age >17 with complicating condition	079
Pulmonary Edema & Respiratory Failure	087
Chronic Obstructive Pulmonary Disease	088
Simple Pneumonia & Pleurisy Age >17 with complicating condition	089
Simple Pneumonia & Pleurisy Age >17 without complicating condition	090
Respiratory System Diagnosis with Ventilator Support	475
Tracheostomy Except for Face, Mouth & Neck Diagnoses (T)	483
Degenerative Nervous System Disorders	012
Specific Cerebrovascular Disorders Except TIA (T)	014
Coronary Bypass w/o Cardiac Cath	107
Major Cardiovascular Procedures with complicating condition	110
Heart Failure & Shock	127
Peripheral Vascular Disorders with complicating condition	130
GI Hemorrhage with complicating condition	174
Fractures of Hip & Pelvis (T)	236

Osteomyelitis	238
Skin Graft &/OR Debrid for Skin Ulcer of Cellulitis with complicating condition (T)	263
Cellulitis Age >17 with complicating condition	277
Renal Failure	316
Kidney & Urinary Tract Infections Age > 17 with complicating condition	320
Septicemia Age >17	416
Extensive OR Procedure Unrelated to Principal Diagnosis	468
Other OR Procedures for Multiple Significant Trauma	486
Skin Ulcers	271
Rehabilitation	462

research to date indicates that CMGs are effective predictors of resource use as measured by proxies such as length of stay and charges. The use of these proxies is necessary because data that measures actual nursing and therapy time spent on patient care, and other resource use data, are not available. The scientifically structured collection of data on patient characteristics and patient-specific resource use may enhance our ability to refine the CMGs in a manner that supports our policy objectives for implementing a IRF prospective payment system. Accordingly, we have contracted with Aspen Systems Corporation to collect actual resource use data in a sample of IRFs. The data collected by Aspen will be submitted to RAND for analysis to determine if it can be used to support future refinements to the CMGs.

III. The Minimum Data Set for Post-Acute Care (MDS–PAC) Patient Assessment Instrument

A. Implementation of the MDS–PAC

Under section 1886(j)(2)(D) of the Act, "The Secretary is authorized to require rehabilitation facilities that provide inpatient hospital services to submit such data as the Secretary deems necessary to establish and administer the prospective payment system under this subsection." The collection of patient data is indispensable for the successful development and implementation of the IRF prospective payment system. A comprehensive, reliable system for collecting standardized patient assessment data is necessary for: (1) The objective assignment of Medicare beneficiaries to appropriate IRF CMGs; (2) the development of a system to monitor the effects of an IRF prospective payment system on patient care and outcomes; (3) the determination of whether future adjustments to the IRF CMGs are warranted; and (4) the development of an integrated system for post-acute care in the future.

The MDS–PAC is the standardized patient assessment instrument we are proposing to use under the IRF prospective payment system. We acknowledge that the nature of the patient data we would collect may evolve over time. We believe that the present structure of independent Medicare post-acute benefits, which includes payment systems, coverage requirements, and quality assessment instruments based primarily on site of care, may provide incentives that result in reduced access and choice for beneficiaries and may contribute to inappropriate care. As a result of this fragmentation in the payment and delivery of post-acute care under Medicare, we are reevaluating the payment and delivery of post-acute services with the objective of developing a more integrated approach focusing on the entire post-acute episode of care and each patient's care needs regardless of setting. We believe the MDS–PAC will help to move Medicare toward our long term objective of creating a more integrated post acute care payment and delivery system that facilitates improved quality, choice and access to care for beneficiaries.

Our goal of ultimately establishing a common system to assess patient characteristics and care needs for post-acute providers was endorsed by MedPAC in its March 1999 report to the Congress. MedPAC recommended that the Secretary collect a core set of patient assessment information across all post-acute settings. (Recommendation 5A). In the narrative supporting this recommendation, MedPAC "commends HCFA's development of the MDS–PAC and encourages its refinement and use. The instrument will facilitate greatly comparisons of patient characteristics and service use across inpatient post-acute settings. Insights gleaned from these data should inform future prospective payment system policies, as well as longer term policy considerations about post-acute care." We share MedPAC's opinion of the utility of a common patient data system across post-acute settings. We believe that future refinements in the design and application of the MDS–PAC will provide us with essential information to inform policy decisions related to post-acute care users and their characteristics, quality, and payment.

The implementation of the per-case prospective payment system based on the "functional-related group" methodology requires the use of a standardized data collection instrument that contains the elements required to classify a patient into a distinct CMG. To classify a patient into a distinct CMG the data collection instrument must first assign the patient into one of the various high level categories that are based principally on ICD–9–CM diagnoses plus some additional patient information. These high level categories are called Rehabilitation Impairment Categories. After that initial classification step a patient's comorbidity data (which is also based on the ICD–9–CM codes), the level of the patient's impairment as determined by the patient's motor and cognitive function scores, and the age of the patient are used to classify a patient into a distinct CMG within the higher level Rehabilitation Impairment Group. Additional data elements are required to identify the patient and for monitoring the quality of care furnished to patients in IRFs.

Several approaches to the collection of these data elements are available. These include—(a) the development of a new data collection instrument, the MDS–PAC (as proposed in this rule); (b) adoption of an instrument closely modeled on the Uniform Data Set for Medical Rehabilitation (UDSmr) and the Caredata.com Clinical Outcome Set (COS) that would contain the needed data elements exactly as they have been recorded in the past and as used in the development of the FIM–FRG classification of patients; and (c) the incorporation verbatim into the new instrument (MDS–PAC) of the UDSmr/COS data elements that are relevant to payment. We are proposing the first option, the MDS–PAC, for the reasons outlined in the section below.

1. Use of MDS as Foundation

The basis of the MDS–PAC system is the Minimum Data Set (MDS)/Resident Assessment Instrument (RAI). The MDS/RAI was one of the key provisions of the nursing home reform legislation enacted by the Omnibus Budget Reconciliation Act of 1987 (OBRA), Pub. L. 100–203, and the first standardized assessment instrument that the Congress required to be used in a post-acute care setting. The MDS is a core set of screening and assessment elements, including common definitions and coding categories, which forms the foundation of a comprehensive assessment (the RAI). OBRA mandated that we develop the MDS and require its use for all residents of certified long-term care facilities as a condition of participating in Medicare or Medicaid.

We originally implemented the MDS/RAI in 1990 through 1991 in the approximately 17,000 certified long-term care facilities nationwide. The MDS/RAI has been used by long-term care facilities to assess all residents at specific points during their stay, regardless of payer source. Residents are assessed upon admission to the facility, after experiencing a significant change, and at least annually, with a review of key items required every 90 days. Regulations requiring all certified long-term care facilities to encode and transmit MDS data to the State and HCFA became effective June 22, 1998 ((62 FR 67174) "Resident Assessment In Long Term Care Facilities"). As of March 3, 2000, there were 23,829,196 records for 4,576,748 residents submitted to our national MDS repository.

Long-term care facilities use the assessment system as the basis of developing an individualized plan of care. However, the design of our long-term care facility payment and quality of care systems relies on use of the resident characteristic, health status, and service use information derived from the MDS to support a number of our programs. For example, the SNF prospective payment system implemented in July 1998 relies on MDS data to classify patients into the appropriate case-mix categories. In addition, in July 1999, we began to use MDS data to generate quality indicators for use in the long-term care facility survey process. Also, long-term care facilities may request real-time MDS-based quality indicator reports, from the HCFA-sponsored State-level MDS data system, that compare the facility's performance in key care areas with the performance of other facilities within the State. These reports can be used for internal quality assurance and improvement activities. Our Peer Review Organizations (PROs) are using MDS data to conduct long-term care facility quality improvement activities in a number of areas, including pain management, pressure ulcers, and urinary incontinence.

In keeping with our commitment to the nursing home industry to refine the MDS/RAI system over time to incorporate advances in assessment technology and changes in the nursing home population, we developed a second generation instrument, known as the MDS version 2. The MDS 2 was implemented nationally in 1996. Shortly thereafter, we agreed to begin work on a post-acute version of the MDS, in response to the long-term care industry's concerns that the MDS had not been constructed to address the characteristics and needs of the increasing numbers of short stay patients admitted to SNFs for rehabilitation and medically complex care.

Before we started work on the MDS–PAC, however, we made a policy decision that our goal was to establish a common instrument to assess patients receiving services by all Medicare institutional post-acute providers. This broadened the scope of the instrument to include freestanding rehabilitation hospitals and hospital-based rehabilitation units, as well as long-term care hospitals. Our policy decision was based on a belief that there is considerable overlap among the patient populations and services rendered by post-acute care providers. The March 1999 MedPAC report to Congress indicated that prior distinctions in the types of patients and services provided across settings have become less clear for a number of reasons (p. 82), and that lack of uniform patient-level data across settings severely restricts our ability to identify where differences and overlaps occur.

This hypothesis regarding the overlap of patient populations was tested by collecting MDS 2 data for patients of rehabilitation and long-term care hospitals and comparing that data with MDS records for SNF patients. The SNF database included records for long-stay nursing home residents who had been readmitted after a hospitalization and now qualified for a period of skilled care. There were 1,535 SNF patient records collected from initial MDS assessments in 1996. Of these patient records, 517 (34 percent) of the patients were expected to be discharged within 30 days of admission. An additional 248 (16 percent) were expected to be discharged in 31 to 90 days. For the remaining patient records, discharge status was unknown, not anticipated or (in a limited number of cases) the discharge variable was missing. This activity was also conducted in order to provide us with information about the characteristics, health status, and service utilization of rehabilitation and long-term care hospital patients, as part of our initial activities to inform development of the MDS–PAC.

Staff from participating rehabilitation hospitals, rehabilitation units of acute care hospitals, and long-term care hospitals were trained in the use of the MDS 2.0, and were asked to complete it for a sample of their newly admitted patients during June through October 1998. Data were received for 614 patients in 26 rehabilitation hospitals and units, and for 479 patients in 26 long-term care hospitals. Of the 52 providers participating in the baseline data collection, 38 were recruited using a random sample of Medicare-certified providers.

We found many similarities in the characteristics, health status, medical diagnoses, and service utilization patterns of SNF and rehabilitation hospital patients. We note that our focus groups indicated to us that many rehabilitation hospitals and self-proclaimed "subacute" SNFs have as a criteria for admission the patient's potential ability to be discharged from the facility within a certain time period. Thus, for comparative purposes we differentiated between the MDS records of SNF patients expected to be discharged and those of SNF patients not expected to be discharged. As illustrated below by Table 1C, patients in rehabilitation hospitals and SNF patients who were expected to be discharged demonstrated similar levels of activity of daily living (ADL) overall impairment, as measured by the MDS 2, while a greater number of SNF patients who were not expected to be discharged experienced impairment in "late loss" ADLs or were fully dependent.

TABLE 1C.—PERCENT OF PATIENTS WITH ADL IMPAIRMENT BY FACILITY TYPE

ADL score (hierarchical)	LTC hospital	Rehab hospital	SNF discharge expected	SNF discharge not expected
0—Independent	3.1	.8	4.2	3.4
1—Supervision	4.4	9.5	6.5	5.6
2—Limited	12.8	25.4	29.3	17.9
3—Early Loss ADL—extensive or dependent	4.2	14.8	8.2	9.8
4—Mid late loss ADL—extensive assistance late loss ADL	8.0	21.1	20.9	15.9
5—Mid late-some late loss ADL dependency	34.8	22.5	27.3	33.8
6—Full dependency	32.9	5.9	3.7	13.5

In addition, fewer SNF patients were reported to have symptoms of delirium as compared to rehabilitation hospital patients. While the number of SNF patients not expected to be discharged who experienced memory problems was higher, the overall cognitive performance score (a composite measure based on several MDS items) for patients across the four populations was remarkably similar, except for the higher number of long-term care hospital patients rated as a "6" (that is, very severely cognitively impaired). A comparison of cognitive impairment by facility type can be seen in Table 2C.

TABLE 2C.—PERCENT OF PATIENTS WITH COGNITIVE IMPAIRMENT BY FACILITY TYPE

Condition	LTC hospital	Rehab Hospital	SNF discharge expected	SNF discharge not expected
Delirium Symptoms—New				
Easily Distracted	12.0	15.4	3.1	1.7
Altered Perceptions	9.7	5.9	2.6	2.2
Disorganized Speech	8.8	10.5	2.4	2.2
Restlessness	13.6	8.9	2.0	3.0
Lethargy	14.4	9.2	4.0	4.0
Mental Function Varies	17.2	13.5	5.2	4.0
Cognitive Performance Scale				
0=Intact	40.5	49.3	46.0	17.9
1=Borderline Intact	14.3	13.6	16.7	17.6
2=Mild	7.2	10.2	12.0	11.3
3=Moderate	9.1	13.0	16.3	26.2
4=Moderate Severe	4.0	3.3	4.1	10.5
5=Severe	3.0	5.7	3.3	6.9
6=Very Severe	21.9	4.9	1.6	9.6
Memory				
Memory Problem—short term	32.8	36.2	37.0	61.0
Memory Problem—long-term	29.9	23.0	23.1	46.2
Memory Problem—situational	37.5	12.4		

We did not find significant differences across care settings in many of the disease diagnoses recorded in section I of the MDS, although long-term care hospital patients had more cases of diabetes, cardiac dysrhythmia, post heart surgery, peripheral vascular disease, paraplegia, respiratory conditions, renal failure, and antibiotic-resistant infections (Table 3C).

TABLE 3C.—PERCENT OF PATIENTS WITH SPECIFIC CONDITIONS BY FACILITY TYPE

Condition	LTC hospital	Rehab hospital	SNF discharge expected	SNF discharge not expected
Diseases				
Diabetes	37.0	25.0	27.0	24.2
Hyperthyroidism	0.4	0.7	0.7	0.3
Hypothyroidism	9.0	8.2	8.0	6.8
Arteriosclerotic heart disease	17.3	14.7	15.7	18.3
Cardiac dysrhythmia	21.1	11.3	14.7	17.2
Post heart surgery	24.0	13.0	6.9	6.2
CHF	23.0	8.5	21.6	22.9
Deep vein thrombosis	4.8	3.1	11.4	1.8
Hypertension	37.6	45.8	47.9	46.5
Hypotension	2.8	1.3	1.5	1.0
Peripheral vascular disease	15.0	9.0	8.6	6.0
Other cardiovascular disease	14.8	10.3	19.5	20.8
Arthritis	11.3	20.1	25.4	21.9
Hip fracture	6.7	11.6	14.1	7.4
Missing limb	5.4	4.9	3.0	3.5
Osteoporosis	7.1	3.6	8.0	10.5
Pathological bone fracture	1.3	1.8	1.0	1.5
Alzheimer's	1.5	0.5	4.1	12.3
Aphasia	2.3	6.5	3.8	7.2
CP	0.2	0.7	.....	.....
CVA	23.8	34.6	22.2	27.7
Other dementia	7.9	2.1	13.9	31.5
Hemiplegia/hemiparesis	12.9	27.8	8.8	10.1
MS	2.1	1.1	0.1	0.7
Paraplegia	3.0	2.1	0.3	0.3
Parkinson's	2.5	1.6	3.3	4.0
Quadriplegia	3.3	2.6	0.1	0.2
Seizure disorder	6.5	5.2	4.5	4.5
TIA	1.0	23	4.0	4.0
Traumatic brain injury	4.2	7.0	0.3	0.3
Anxiety disorder	4.6	5.2	7.8	6.8
Depression	10.2	14.4	14.6	13.6
Manic depression	0.8	1.1	0.9	0.7

TABLE 3C.—PERCENT OF PATIENTS WITH SPECIFIC CONDITIONS BY FACILITY TYPE—Continued

Condition	LTC hospital	Rehab hospital	SNF discharge expected	SNF discharge not expected
Schizophrenia	0.8	0.5	1.0	1.5
Asthma	3.5	3.1	2.0	1.5
Emphysema/COPD	29.0	10.1	19.3	17.2
Pulmonary failure	24.0	4.3	.....	.....
Cataracts	2.9	3.3	6.5	5.5
Diabetic retinopathy	1.9	1.8	0.7	0.5
Glaucoma	3.8	2.9	5.9	4.0
Macular degeneration	1.5	0.7	1.2	0.8
Allergies	9.4	15.2	28.2	28.9
Anemia	15.7	11.9	18.2	19.5
Cancer	12.1	7.5	14.4	15.3
Renal failure	14.0	4.7	4.9	5.3
Amputated limb	5.4	5.0	N/A	N/A
Post surgery—elective hip	4.0	13.0	.....	.....
Antibiotic resistant infection	16.7	2.8	1.0	0.5
Pneumonia	19.2	3.1	8.5	6.5
UTI	21.9	19.9	21.1	23.1
Bladder Continence				
Continent, no catheter	28.0	60.9	63.4	45.6
Continent, catheter	52.1	15.2	N/A	N/A
Some incontinence	50.8	31.6	36.6	54.4
Bowel Continence	48.0	75.0	71.3	47.9
Complications				
Inability to lie flat—loss of breath	44.0	6.5	6.9	6.2
Shortness of breath—exertion	52.0	21.7	.....	.....
Shortness of breath—at rest	32.0	0.0	.....	.....
Difficulty coughing/clearing airways	40.0	2.2	N/A	N/A
Recurrent respiratory infection	28.0	2.2	.....	.....
Surgical wound	48.0	56.5	.....	.....
Pain				
None	45.4	25.6	36.0	58.8
Less than daily	17.3	19.5	31.0	22.3
Daily	37.3	55.0	33.0	18.9
Health Complications				
Syncope	2.3	1.0	.07	0
Unsteady Gait	26.2	52.5	48.0	40.1
Limited ROM—Arm	20.7	9.3	6.3	12.5
Limited ROM—Hand	18.0	7.2	3.5	8.8
Limited ROM—Foot	26.4	10.5	5.7	14.7
Pressure Ulcers—Any (stage 1–4)	36.0	17.9	17.7	21.6
Expectations (Rehabilitation Potential)				
Patient believes self could be more independent	53.7	74.5	45.1	16.2
Staff believes patient could be more independent	59.1	76.4	50.9	31.3
Patient able to perform tasks slowly	26.1	33.9	12.7	12.4
Major difference in ADLs AM and PM	8.1	16.7	1.9	3.2
Behavior				
Wander	3.6	4.1	2.8	9.1
Verbally abusive	3.4	3.8	3.0	5.4
Physically abusive	1.8	2.1	1.4	5.9
Socially inappropriate	3.2	4.8	4.2	8.6
Resists care	12.2	8.6	9.8	16.3

The diagnostic profiles of patients in rehabilitation hospitals and SNFs were similar, although rehabilitation hospitals treated a higher percentage of patients with strokes, hemiplegia/hemiparesis, and traumatic brain injury and fewer patients with congestive heart failure and emphysema or chronic obstructive pulmonary disease. Both bladder and bowel continence levels were similar for rehabilitation hospital and SNF patients who were expected to be discharged. Pain levels for rehabilitation hospital and SNF patients were also similar overall, although more

SNF patients were reported to experience pain less frequently than daily and more rehabilitation hospital patients were assessed as having daily pain. Pressure ulcer rates for rehabilitation hospital and SNF patients were comparable, as were the number of patients with unsteady gait and limitations in range of motion. Rehabilitation hospitals reported a higher use of restraints. Rehabilitation hospital and SNF patients who were expected to be discharged had a similar number of behavioral symptoms, which were less overall as compared to the number of behavioral symptoms experienced by SNF patients not expected to be discharged.

These results confirmed anecdotal information reported by rehabilitation hospital and SNF clinicians during our focus groups. While Medicare coverage policies allow payment to SNFs for a wider range of patients than rehabilitation hospitals, both groups reported that their patient populations had changed over the past few years, leading to some convergence in the types of patients treated by rehabilitation hospitals and SNFs. Both reported a large increase in the number of comorbidities and clinical complexities for patients admitted primarily for rehabilitative services, saying that "uncomplicated" patients were no longer admitted for inpatient rehabilitation, (instead, for example, "uncomplicated" patients requiring rehabilitation after a hip fracture now generally receive therapy in their homes).

It is our view that any system used to classify rehabilitation patients should be based on the same measures of a patient's health status and care needs as are used in other segments of the post-acute care industry. However, for purposes of this proposed rule, we are most concerned that the classification instrument work well with IRF patients. Given our use of the MDS in SNFs, it is logical to extend an MDS-based system to IRFs.

We are developing version 3 of the MDS/RAI, which we envision as containing sections for specific populations (for example, traditional, long stay resident; short-stay patient; those receiving palliative or end of life care; and pediatrics).

2. Other Options

We recognized that many rehabilitation hospitals already use a patient assessment instrument that contains the functional independence measures (FIM). The FIM were developed by researchers who were funded by a consortium of rehabilitation professional associations and the Department of Education, at the State University of New York (SUNY) at Buffalo in the 1980s. The FIM are contained in a patient assessment instrument that is marketed by the Uniform Data System for Medical Rehabilitation (UDSmr) maintained by SUNY/Buffalo. Caredata.com Clinical Outcome System (COS) used to market a patient assessment instrument that contained the FIM, but we have been notified that Caredata.com has discontinued its business related to FIM reporting as of July 2000. The patient assessment instrument marketed by UDSmr is proprietary.

Many rehabilitation providers are clients of UDSmr. Our 1997 data shows that approximately 68 percent of Medicare patients had a UDSmr or COS data file, indicating that these patients were assessed with the FIM. There is extensive experience with the FIM contained in the UDSmr and COS patient assessment instruments and the uses of the FIM data. This is documented by a substantial list of publications produced both in the United States and overseas (for example, Sweden and Japan), by the developers of the system, and by independent investigators.

The developers of the FIM offer a certification course to train assessors in the use of the instruments. This results in very high rates of intra and inter rater reliability, with Cronbach alpha coefficients of more than 0.9 for both the motor and cognitive subscores. The Cronbach alpha coefficient is a statistical measure of inter-rater reliability with perfect reliability equal to 1.0. Therefore, a score of 0.9 indicates a very high level of inter-rater reliability.

The MDS-PAC is a modification of the MDS, the patient assessment instrument developed for use in nursing facilities. The principal objective of the MDS is to facilitate care planning through a description of the needs of the patient for services. In contrast, the principal objective of the FIM is to assess person level disability in the inpatient medical rehabilitation setting.

The strength of the FIM assessment instrument is that it is a well-evolved and extensively tested approach to the assessment of the critical components of care provided by IRFs, the impact on the patient improvement in functional capacity, and the purpose of the care provided by the IRFs. The variations among facilities in the difference between the observed and expected improvement in function are used as indicators of the quality and the effectiveness of the facilities. The organization that analyzes FIM data for providers generates benchmark data that allows IRFs to compare the outcome of their performance on the functional independence measures relative to other providers participating in the system.

One drawback of the FIM assessment instrument is that it is specifically focused on functional performance. Information is collected only on the matters directly related to functional performance and only at admission and discharge, and, when possible, 6 months after discharge. There is, therefore, a lack of detail on the needs of the patient or on the evolution of the condition of the patient during the course of the admission. However, given that the mean length of stay in an IRF is 15.81 days (median length of stay is 14 days), we are specifically soliciting comments on the benefits of mid-stay assessments.

We are not proposing to use the FIM assessment instruments marketed by either the UDSmr or COS as the basis for an IRF prospective payment, because of our desire to have a common measurement instrument across different post-acute provider settings. Our proposal to use an MDS-based approach comes from our conviction that the use of common item labels and definitions across different provider settings would be essential to monitoring patient care across different provider settings. While we recognize that there are differences between the MDS and the MDS–PAC, our intention is, at some point in the future, to reconcile these differences. Structuring the IRF assessment instrument consistent with the MDS would allow for comparison of patients across different institutional settings. The MDS–PAC collects information on many of the same activities or functional measures as the FIM but defines these activities more specifically in some cases. It would also help facilitate continuity of care in that comparable baseline data would accompany the patient's transfer from one setting to the other. Standardized information across provider types would also be extremely useful in comparing patient characteristics and potentially the appropriateness of care in different settings that serve the same populations. This is especially important since analysis by RAND (1997) shows that costs for the same services vary significantly by provider.

When we began to develop the MDS in the 1980s, the possibility of using the FIM ADL scoring schema was considered. However, field experience demonstrated that nursing home staff did not feel comfortable making the level of distinctions required in the FIM.

New Jersey Hospital Association

Long Term Acute Care (LTAC) Bed Need Analysis

Source: 1998 Uniform Bill Data

NJHA NEW JERSEY HOSPITAL ASSOCIATION

Discharges from <u>all</u> payers, from one of the 26 most common LTAC DRGs, with days > 15 over the Medicare geometric mean ALOS

County Assignment Based on Patient's Residence

County	Potential LTAC Days *	Bed Need at 65% Occupancy	Bed Need at 75% Occupancy
Atlantic	6,699	28	24
Bergen	26,571	112	97
Burlington	6,327	27	23
Camden	10,388	44	38
Cape May	3,776	16	14
Cumberland	3,737	16	14
Essex	43,581	184	159
Gloucester	2,158	9	8
Hudson	33,058	139	121
Hunterdon	2,167	9	8
Mercer	10,631	45	39
Middlesex	24,077	101	88
Monmouth	14,472	61	53
Morris	8,798	37	32
Ocean	13,809	58	50
Passaic	14,804	62	54
Salem	1,326	6	5
Somerset	3,287	14	12
Sussex	2,115	9	8
Union	20,427	86	75
Warren	2,048	9	7
Unknown	6,511	27	24
Statewide	**260,767**	**1,099**	**953**

<u>Notes:</u>

* Potential LTAC Days Represent Days Beyond the Medicare Geometric Mean ALOS.

New Jersey Hospital Association

Long Term Acute Care (LTAC) Medicare Payment Analysis

Source: 1998 Uniform Bill Data

NJHA NEW JERSEY HOSPITAL ASSOCIATION

			Hospital Portion			LTAC Portion				
							Scenario 1		Scenario 2	
Hospital	Potential LTAC Cases*	Current Medicare Payments for Potential LTAC Patients	Acute ALOS	Potential LTAC Cases @ Average Inlier Payment Rate**	Potential Loss of Hospital Revenue Due to Loss of Outlier Payments	LTAC ALOS	If DRG LOS > 25, $25,500 Per Case, Else Lesser of $850 Per Day or $25,500 Per Case	Increase / (Decrease) in Revenue After Adjusting for Outlier Losses	Lesser of $850 Per Day or $25,500 Per Case	Increase / (Decrease) in Revenue After Adjusting for Outlier Losses
Hospital 1	196	10,197,757	10.7	4,701,336	(5,496,421)	31.0	4,665,225	(831,196)	4,488,935	(1,007,486)
Hospital 2	138	4,208,031	7.6	2,133,094	(2,074,937)	50.8	3,248,785	1,173,848	3,217,165	1,142,228
Hospital 3	41	1,918,586	7.1	543,424	(1,375,162)	25.8	821,185	(553,977)	808,435	(566,727)
Hospital 4	73	1,431,835	7.4	995,425	(436,410)	30.8	1,652,145	1,215,735	1,625,965	1,189,555
Hospital 5	43	917,412	7.8	561,724	(355,688)	29.0	970,785	615,097	927,350	571,662
Hospital 6	138	2,690,464	7.2	1,577,863	(1,112,601)	25.5	2,752,215	1,639,614	2,701,215	1,588,614
Hospital 7	55	1,174,523	8.3	785,731	(388,792)	26.4	1,087,915	699,123	1,057,910	669,118
Hospital 8	61	1,060,063	6.2	679,424	(380,638)	35.7	1,362,125	981,487	1,362,125	981,487
Hospital 9	94	1,804,533	7.5	1,204,736	(599,798)	25.6	2,028,610	1,428,812	1,944,290	1,344,492
Hospital 10	68	3,405,038	12.6	2,507,440	(897,599)	42.8	1,619,250	721,651	1,609,815	712,216
Hospital 11	77	2,816,412	6.9	924,160	(1,892,252)	43.0	1,824,780	(67,472)	1,824,100	(68,152)
Hospital 12	87	3,319,926	10.4	1,879,187	(1,440,739)	28.0	1,947,095	506,356	1,919,895	479,156
Hospital 13	135	6,094,719	9.3	2,791,284	(3,303,435)	27.5	2,948,140	(355,295)	2,840,445	(462,990)
Hospital 14	33	861,713	9.0	569,325	(292,388)	26.6	684,760	392,372	668,780	376,392
Hospital 15	109	2,206,216	7.7	1,495,053	(711,163)	31.0	2,627,775	1,916,612	2,594,795	1,883,632
Hospital 16	178	3,140,849	6.7	2,025,197	(1,115,652)	29.2	4,306,185	3,190,533	4,095,300	2,979,648
Hospital 17	43	812,058	9.1	645,635	(166,423)	26.1	842,350	675,927	842,350	675,927
Hospital 18	53	1,427,823	7.8	740,793	(687,030)	28.9	1,189,150	502,120	1,136,790	449,760
Hospital 19	202	4,843,332	9.1	3,200,734	(1,642,598)	26.7	4,463,605	2,821,007	4,325,905	2,683,307
Hospital 20	69	1,843,570	8.0	1,025,060	(818,510)	30.0	1,545,555	727,045	1,507,305	688,795
Hospital 21	125	2,463,584	7.4	1,627,306	(836,278)	25.9	2,829,990	1,993,712	2,646,050	1,809,772
Hospital 22	26	542,369	8.6	372,720	(169,648)	19.4	426,785	257,137	426,785	257,137
Hospital 23	135	2,188,713	7.3	1,463,146	(725,567)	25.8	2,877,250	2,151,683	2,820,045	2,094,478
Hospital 24	69	1,435,716	7.5	908,605	(527,111)	26.4	1,522,265	995,154	1,473,390	946,279
Hospital 25	111	1,896,739	7.9	1,254,226	(642,513)	25.2	2,393,175	1,750,662	2,294,915	1,652,402
Hospital 26	141	3,511,727	10.7	2,674,459	(837,268)	27.8	3,059,575	2,222,307	3,008,150	2,170,882
Hospital 27	54	1,513,197	10.2	1,121,698	(391,499)	29.2	1,129,395	737,896	1,092,420	700,921
Hospital 28	75	2,170,013	9.3	1,487,388	(682,626)	26.6	1,634,040	951,414	1,588,055	905,429
Hospital 29	82	2,136,057	8.3	1,317,185	(818,872)	24.5	1,730,600	911,728	1,685,975	867,103
Hospital 30	48	4,433,581	15.8	3,003,494	(1,430,088)	34.7	1,126,930	(303,158)	1,119,195	(310,893)
Hospital 31	25	304,934	5.5	185,073	(119,861)	25.8	438,770	318,909	438,770	318,909
Hospital 32	57	1,486,588	9.7	1,123,881	(362,707)	26.6	1,194,335	831,628	1,189,745	827,038
Hospital 33	142	8,714,635	13.3	5,331,269	(3,383,366)	37.3	3,301,655	(81,711)	3,207,985	(175,381)
Hospital 34	97	2,078,167	7.5	1,266,576	(811,591)	26.4	2,192,915	1,381,324	2,071,025	1,259,434
Hospital 35	153	3,207,008	7.7	2,155,830	(1,051,178)	26.1	3,429,920	2,378,742	3,307,775	2,256,597
Hospital 36	19	395,773	8.2	266,555	(129,217)	22.0	347,905	218,688	341,105	211,888
Hospital 37	164	4,521,243	8.3	2,610,416	(1,910,827)	29.2	3,626,270	1,715,443	3,476,755	1,565,928
Hospital 38	40	1,723,040	11.0	872,534	(850,506)	37.5	964,070	113,564	939,590	89,084
Hospital 39	49	2,265,333	9.8	1,002,228	(1,263,105)	28.1	1,015,750	(247,355)	1,012,775	(250,330)
Hospital 40	149	2,995,930	7.8	1,868,231	(1,127,699)	25.7	3,073,260	1,945,561	3,007,810	1,880,111
Hospital 41	70	1,118,711	7.1	635,065	(483,646)	32.8	1,633,700	1,150,054	1,604,205	1,120,559
Hospital 42	29	495,322	6.6	327,847	(167,474)	25.1	546,635	379,161	542,385	374,911
Hospital 43	90	2,177,784	8.0	1,183,299	(994,485)	25.8	1,904,085	909,600	1,834,980	840,495
Hospital 44	165	8,537,552	12.8	4,737,266	(3,800,287)	32.3	3,723,000	(77,287)	3,631,115	(169,172)
Hospital 45	24	1,585,863	14.8	986,328	(599,535)	35.8	569,755	(29,780)	569,755	(29,780)
Hospital 46	43	1,559,405	11.3	983,016	(576,389)	31.7	921,825	345,436	920,380	343,991
Hospital 47	25	302,424	6.0	216,455	(85,970)	20.1	435,455	349,485	427,210	341,240
Hospital 48	206	9,918,780	6.6	2,265,971	(7,652,809)	24.9	4,587,025	(3,065,784)	4,297,855	(3,354,954)

New Jersey Hospital Association

Long Term Acute Care (LTAC) Medicare Payment Analysis

Source: 1998 Uniform Bill Data

NJHA NEW JERSEY HOSPITAL ASSOCIATION

			Hospital Portion			LTAC Portion				
							Scenario 1		Scenario 2	
Hospital	Potential LTAC Cases*	Current Medicare Payments for Potential LTAC Patients	Acute ALOS	Potential LTAC Cases @ Average Inlier Payment Rate**	Potential Loss of Hospital Revenue Due to Loss of Outlier Payments	LTAC ALOS	If DRG LOS > 25, $25,500 Per Case, Else Lesser of $850 Per Day or $25,500 Per Case	Increase / (Decrease) in Revenue After Adjusting for Outlier Losses	Lesser of $850 Per Day or $25,500 Per Case	Increase / (Decrease) in Revenue After Adjusting for Outlier Losses
Hospital 49	60	1,728,201	9.3	954,262	(773,940)	35.6	1,332,290	558,350	1,306,790	532,850
Hospital 50	117	2,475,202	7.0	1,431,789	(1,043,413)	25.6	2,430,320	1,386,907	2,418,165	1,374,752
Hospital 51	58	1,890,514	9.1	1,093,365	(797,149)	25.5	1,247,970	450,821	1,209,210	412,061
Hospital 52	9	158,183	5.9	77,358	(80,825)	25.1	198,815	117,990	192,100	111,275
Hospital 53	76	1,485,881	8.6	752,024	(733,857)	33.1	1,784,830	1,050,973	1,751,680	1,017,823
Hospital 54	138	3,180,506	7.5	1,672,663	(1,507,843)	28.1	3,235,780	1,727,937	3,135,480	1,627,637
Hospital 55	89	1,954,285	7.5	1,253,937	(700,349)	28.5	1,950,410	1,250,061	1,895,755	1,195,406
Hospital 56	74	1,473,680	7.5	926,337	(547,342)	29.9	1,635,910	1,088,568	1,569,270	1,021,928
Hospital 57	82	3,230,362	9.6	1,632,792	(1,597,570)	32.7	1,966,815	369,245	1,831,835	234,265
Hospital 58	92	3,242,604	9.6	1,724,955	(1,517,649)	28.4	2,100,860	583,211	2,054,960	537,311
Hospital 59	200	3,227,464	6.9	2,379,502	(847,962)	29.2	4,741,300	3,893,338	4,574,445	3,726,483
Hospital 60	83	1,853,388	7.4	1,053,843	(799,545)	25.2	1,874,930	1,075,385	1,753,635	954,090
Hospital 61	68	1,251,028	7.4	810,529	(440,499)	27.7	1,494,130	1,053,631	1,468,715	1,028,216
Hospital 62	89	2,101,881	7.2	1,081,666	(1,020,215)	25.1	1,924,315	904,100	1,875,950	855,735
Hospital 63	67	1,144,895	6.3	606,198	(538,697)	26.6	1,409,470	870,773	1,384,650	845,953
Hospital 64	104	1,597,240	6.8	1,229,678	(367,563)	26.1	2,391,900	2,024,337	2,226,915	1,859,352
Hospital 65	81	7,055,311	7.6	1,144,315	(5,910,996)	22.5	1,600,635	(4,310,361)	1,547,510	(4,363,486)
Hospital 66	120	4,706,530	10.2	2,766,730	(1,939,800)	31.9	2,717,790	777,990	2,676,310	736,510
Hospital 67	254	5,944,595	7.9	3,521,703	(2,422,892)	28.0	5,814,595	3,391,703	5,496,185	3,073,293
Hospital 68	71	1,606,365	6.8	819,848	(786,517)	34.0	1,663,025	876,508	1,558,560	772,043
Hospital 69	95	1,722,160	7.3	1,330,451	(391,709)	30.2	2,232,695	1,840,986	2,144,975	1,753,266
Hospital 70	74	2,005,566	8.2	1,114,804	(890,762)	29.9	1,727,030	836,268	1,665,490	774,728
Hospital 71	90	2,867,928	10.3	2,190,599	(677,329)	26.9	1,971,575	1,294,246	1,910,885	1,233,556
Hospital 72	158	2,774,466	6.7	1,554,029	(1,220,438)	29.7	3,705,490	2,485,052	3,574,590	2,354,152
Hospital 73	111	4,113,925	10.9	2,994,908	(1,119,017)	33.4	2,613,325	1,494,308	2,543,710	1,424,693
Hospital 74	75	1,695,221	7.5	1,103,241	(591,980)	24.5	1,572,925	980,945	1,545,810	953,830
Hospital 75	16	225,924	6.0	133,163	(92,760)	25.5	323,425	230,665	323,425	230,665
Hospital 76	123	5,921,838	8.1	2,416,757	(3,505,080)	28.6	2,805,000	(700,080)	2,743,545	(761,535)
Hospital 77	39	1,975,957	11.0	957,230	(1,018,727)	33.4	827,645	(191,082)	805,630	(213,097)
Hospital 78	50	673,749	6.7	495,421	(178,329)	22.4	962,795	784,466	945,965	767,636
Hospital 79	62	1,186,595	7.7	963,014	(223,582)	25.4	1,334,670	1,111,088	1,268,710	1,045,128
Hospital 80	66	1,599,848	9.0	1,043,312	(556,537)	28.6	1,406,240	849,703	1,394,340	837,803
Hospital 81	39	535,472	6.7	390,564	(144,908)	26.3	836,740	691,832	827,645	682,737
Hospital 82	54	3,371,559	16.1	2,570,081	(801,478)	40.4	1,273,130	471,652	1,243,550	442,072
Hospital 83	207	4,594,176	6.8	2,145,544	(2,448,632)	30.5	5,014,660	2,566,028	4,861,150	2,412,518
Total	**7,497**	**218,427,552**	**8.4**	**122,571,301**	**(95,856,251)**	**29.2**	**167,347,405**	**71,491,154**	**162,202,610**	**66,346,359**

Notes:

* Potential LTAC Cases Represent Medicare Inpatients in the 26 Most Common LTAC DRGs with an ALOS > 15 Days Over the Geometric Mean ALOS.

** Represents Hospital-Specific, DRG-Specific Medicare Inlier Payment Rates.

July 26, 2000

Jean Cetrulo, Director
Office of Long Term Care Options
Department of Health and Senior Services
PO Box 722
Trenton, NJ 08625-0722

Dear Jean:

As follow up to our last meeting regarding discharge and length of stay in hospitals, NJHA conducted a brief survey of hospital utilization and case managers so that we could better understand the particular issues and barriers involved. A copy of the survey is enclosed. The 13 responses we received were from all over the state (6 north; 4 central; 3 south), and the issues raised varied somewhat by hospital. We have summarized below the findings from the 13 survey responses we received:

(1) How many discharged cases per weekend or holiday does your hospital hold usually because a representative is not available from the field office to conduct a Medicaid PAS or facilitate the PAS process?

Northern hospitals 0-4, the highest numbers being in Morris, Hudson and Essex

Central hospitals 1-5

Southern hospitals 0-5, with highest number in Camden

(2) Are you able to transfer ventilator patients to a NJ facility?

North: Yes, but identified waiting time as at least one month. Some use NY facilities

Central: Yes, but identified waiting time as 1-3 months. Also use PA and NY facilities

South: Yes, but identified waiting time as 1 month or longer. Also use PA and DE facilities.

(3) Are you able to transfer pediatric cases to a NJ facility?

North: For those that had pediatric cases, yes. Long term vent care pediatric patients can wait up to a year for placement in some cases.

Central: Yes, rarely a problem

South: Yes, usually in a week to ten days.

(4) Please specify the top three barriers to timely discharge

North: Lack of dialysis/vent beds (4 responses); complexity of case (2 responses); payor issues (3); waiting for PAS, Medicaid pending, Medicaid processing (3 responses); family-physician communication

Central: Bed availability for heavy care, complex patients such as vent, IV antibiotics, TPN, hemo- and peritoneal dialysis (3 responses); Medicaid processing (3 responses); patient and family do not feel ready for discharge or feel placement is too far from home (1 response)

South: Lack of insurance (3 responses); patients with special placement needs like isolation, head injury, rehab and other complex cases (4 responses); family issues (3 responses).

(5) Would you be interested in participating in a work group/pilot study to develop strategies to improve the state's infrastructure for processing requirements related to discharge, transfer and placement?

Across the board the answer to this question was "yes."

We hope you find this information helpful as you consider next steps with respect to the PAS process. We will also share this information with the Post Acute Work Group that Marilyn Dahl is chairing since it sheds some light on issues other than Medicaid PAS that need to be considered.

Please let us know how we can be of assistance to you going forward.

Sincerely,

Geraldine Moon
Vice President
Hospital Operations

Theresa Edelstein
Assistant Vice President
Health Policy & Planning

State of New Jersey
DEPARTMENT OF HEALTH AND SENIOR SERVICES
PO BOX 360
TRENTON, N.J. 08625-0360

CHRISTINE TODD WHITMAN
Governor

www.state.nj.us/health

CHRISTINE GRANT, JD, M
Commissioner

August 21, 2000

TO: Post-Acute Care Work Group

FROM: Marilyn Dahl
Senior Assistant Commissioner

SUBJECT: Additional Data for Requested by Work Group Members

Enclosed please find the following additional tables requested at the July meeting of Work Group members:

- ❑ NJHA-produced table showing for each state its variance from the national case-mix adjusted Medicare LOS, using 1998 Medicare Cost Report Data
- ❑ NJHA-produced table showing by DRG cases and their average LOS for cases with LOS five, ten and fifteen days longer than the geometric mean.
- ❑ DHSS-produced table showing hospitals sorted by licensed and maintained occupancy rates, and their Medicare case-mix adjusted LOS

New Jersey Hospital Association

1998 Medicare Cost Report Data

Utilized HCFA's Public Use Files CY1999 Medicare CMI

State	Overall LOS	MCR LOS	MCR CMI Adj LOS	Variance to National
New York	6.7	8.3	5.7	1.6
New Jersey	***5.5***	***7.5***	***5.3***	***1.2***
Puerto Rico	5.2	6.9	5.2	1.1
Mississippi	5.1	6.4	5.0	0.9
Hawaii	6.3	7.6	5.0	0.9
Washington, D.C.	5.7	7.4	5.0	0.9
West Virginia	4.9	6.4	4.8	0.7
South Carolina	5.3	6.3	4.4	0.3
Rhode Island	5.1	6.2	4.3	0.2
North Carolina	5.0	6.1	4.3	0.2
Kansas	4.9	5.8	4.2	0.1
Maryland	4.8	6.1	4.2	0.1
Iowa	5.3	5.9	4.2	0.1
Virginia	4.9	6.0	4.1	0.0
Kentucky	4.8	5.7	4.1	0.0
Arkansas	4.7	5.6	4.1	(0.0)
Illinois	4.7	5.7	4.0	(0.1)
Pennsylvania	4.9	5.9	4.0	(0.1)
North Dakota	5.6	6.1	4.0	(0.1)
Alaska	4.6	5.4	4.0	(0.1)
Michigan	4.9	5.9	4.0	(0.1)
Delaware	4.7	6.2	4.0	(0.1)
New Hampshire	4.7	5.8	4.0	(0.1)
Maine	4.6	5.5	3.9	(0.2)
Alabama	4.6	5.5	3.9	(0.2)
Massachusetts	4.7	5.6	3.9	(0.2)
Georgia	4.8	5.8	3.9	(0.2)
Louisiana	4.7	5.5	3.9	(0.2)
Vermont	4.8	5.6	3.9	(0.2)
Wyoming	4.3	5.1	3.9	(0.2)
Texas	4.6	5.7	3.9	(0.2)
Tennessee	4.9	5.7	3.9	(0.2)
Oklahoma	4.6	5.4	3.9	(0.2)
South Dakota	4.8	5.6	3.8	(0.3)
Indiana	4.5	5.4	3.8	(0.3)
Missouri	4.4	5.6	3.8	(0.3)
Nebraska	5.5	5.7	3.8	(0.3)
Nevada	4.6	5.6	3.8	(0.3)
Florida	4.8	5.6	3.7	(0.4)
Wisconsin	4.6	5.4	3.7	(0.4)
California	4.5	5.5	3.7	(0.4)
New Mexico	3.8	5.1	3.7	(0.4)
Ohio	4.5	5.4	3.7	(0.4)
Connecticut	4.5	5.8	3.7	(0.4)
Montana	4.4	5.0	3.5	(0.6)
Minnesota	4.5	5.2	3.5	(0.6)
Colorado	4.1	4.9	3.3	(0.8)
Idaho	3.9	4.5	3.2	(0.9)
Arizona	4.0	4.8	3.2	(0.9)
Utah	4.3	4.8	3.1	(1.0)
Oregon	3.8	4.6	3.1	(1.0)
Washington	4.0	4.6	3.1	(1.0)
National	**4.9**	**5.9**	**4.1**	

New Jersey Hospital Association
1998 UB Data for Post-Acute Care Work Group

Medicare Cases by DRG

MDC	DRG	DRG Description	Cases	ALOS	FY 1999 Geometric Mean LOS	Variance to Geometric Mean	15 Days over Geometric Mean LOS Cases	15 Days over Geometric Mean LOS ALOS	10 Days over Geometric Mean LOS Cases	10 Days over Geometric Mean LOS ALOS	5 Days over Geometric Mean LOS Cases	5 Days over Geometric Mean LOS ALOS
1	001	CRANIOTOMY AGE >17 EXCEPT FOR TRAUMA	754	13.5	6.8	6.7	118	36.3	187	30.2	305	24.3
1	002	CRANIOTOMY FOR TRAUMA AGE >17	138	13.3	7.5	5.8	15	38.8	33	28.5	56	22.7
1	004	SPINAL PROCEDURES	95	9.1	5.1	4.0	12	30.3	18	26.3	25	22.6
1	005	EXTRACRANIAL VASCULAR PROCEDURES	2,331	4.1	2.7	1.4	73	26.4	153	20.3	348	14.3
1	006	CARPAL TUNNEL RELEASE	19	2.7	2.1	0.6	0	0.0	1	16.0	2	12.0
1	007	PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W CC	473	16.7	6.8	9.9	101	43.7	146	36.3	205	30.0
1	008	PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W/O CC	103	4.3	2.2	2.1	2	21.5	9	16.4	19	12.9
1	009	SPINAL DISORDERS & INJURIES	51	9.2	4.8	4.4	2	48.5	10	23.9	17	19.0
1	010	NERVOUS SYSTEM NEOPLASMS W CC	676	10.1	5.0	5.1	66	31.4	131	24.7	247	19.1
1	011	NERVOUS SYSTEM NEOPLASMS W/O CC	94	5.6	3.1	2.5	0	0.0	6	14.5	21	11.6
1	012	DEGENERATIVE NERVOUS SYSTEM DISORDERS	1,824	10.8	4.8	6.0	198	41.1	331	31.2	661	21.4
1	013	MULTIPLE SCLEROSIS & CEREBELLAR ATAXIA	191	6.6	4.4	2.2	4	29.3	10	21.6	35	14.6
1	014	SPECIFIC CEREBROVASCULAR DISORDERS EXCEPT TIA	10,354	8.9	4.9	4.0	723	31.4	1306	25.3	2789	18.5
1	015	TRANSIENT ISCHEMIC ATTACK & PRECEREBRAL OCCLUSIONS	5,979	5.3	3.1	2.2	104	30.0	250	21.5	806	13.8
1	016	NONSPECIFIC CEREBROVASCULAR DISORDERS W CC	280	8.8	4.5	4.3	23	34.4	34	28.6	80	18.9
1	017	NONSPECIFIC CEREBROVASCULAR DISORDERS W/O CC	96	3.6	2.7	0.9	0	0.0	1	13.0	10	9.9
1	018	CRANIAL & PERIPHERAL NERVE DISORDERS W CC	814	7.8	4.3	3.5	40	32.6	77	25.0	213	16.4
1	019	CRANIAL & PERIPHERAL NERVE DISORDERS W/O CC	283	4.3	3.0	1.3	3	23.0	6	19.3	27	12.7
1	020	NERVOUS SYSTEM INFECTION EXCEPT VIRAL MENINGITIS	140	15.3	7.9	7.4	26	38.4	43	31.0	66	25.3
1	021	VIRAL MENINGITIS	19	8.6	5.1	3.5	2	30.0	2	30.0	3	24.3
1	022	HYPERTENSIVE ENCEPHALOPATHY	82	6.8	3.6	3.2	5	34.6	7	29.3	17	17.9
1	023	NONTRAUMATIC STUPOR & COMA	105	6.3	3.2	3.1	5	22.2	8	20.4	25	13.7
1	024	SEIZURE & HEADACHE AGE >17 W CC	1,895	7.1	3.8	3.3	112	29.5	206	23.2	462	16.2
1	025	SEIZURE & HEADACHE AGE >17 W/O CC	863	4.1	2.7	1.4	6	32.8	26	18.8	85	12.1
1	026	SEIZURE & HEADACHE AGE 0-17	2	15.5	2.5	13.0	1	29.0	1	29.0	1	29.0
1	027	TRAUMATIC STUPOR & COMA, COMA >1 HR	89	9.0	3.4	5.6	13	30.2	17	26.8	31	19.9
1	028	TRAUMATIC STUPOR & COMA, COMA <1 HR AGE >17 W CC	329	9.8	4.2	5.6	36	31.7	53	26.9	132	17.9
1	029	TRAUMATIC STUPOR & COMA, COMA <1 HR AGE >17 W/O CC	99	5.4	2.6	2.8	5	25.4	7	22.3	20	13.7
1	031	CONCUSSION AGE >17 W CC	208	5.7	3.2	2.5	9	28.6	13	24.7	34	15.8
1	032	CONCUSSION AGE >17 W/O CC	110	3.2	2.2	1.0	0	0.0	0	0.0	6	8.2
1	033	CONCUSSION AGE 0-17	1	1.0	1.6	(0.6)	0	0.0	0	0.0	0	0.0
1	034	OTHER DISORDERS OF NERVOUS SYSTEM W CC	755	8.8	4.1	4.7	51	31.1	101	24.0	243	16.8
1	035	OTHER DISORDERS OF NERVOUS SYSTEM W/O CC	245	7.2	2.7	4.5	6	36.5	19	21.2	92	11.9
2	036	RETINAL PROCEDURES	85	1.7	1.3	0.4	0	0.0	1	12.0	4	9.8
2	037	ORBITAL PROCEDURES	47	3.6	2.5	1.1	0	0.0	1	13.0	6	9.8
2	038	PRIMARY IRIS PROCEDURES	7	1.6	1.9	(0.3)	0	0.0	0	0.0	0	0.0
2	039	LENS PROCEDURES WITH OR WITHOUT VITRECTOMY	189	1.5	1.5	(0.0)	4	27.0	7	21.9	12	16.7
2	040	EXTRAOCULAR PROCEDURES EXCEPT ORBIT AGE >17	50	5.5	2.1	3.4	4	34.5	7	25.7	9	22.6
2	042	INTRAOCULAR PROCEDURES EXCEPT RETINA, IRIS & LENS	63	2.6	1.6	1.0	1	30.0	2	21.5	6	12.5
2	043	HYPHEMA	2	5.5	2.7	2.8	0	0.0	0	0.0	0	0.0
2	044	ACUTE MAJOR EYE INFECTIONS	27	6.4	4.2	2.2	2	26.0	2	26.0	2	26.0
2	045	NEUROLOGICAL EYE DISORDERS	69	4.0	2.8	1.2	0	0.0	0	0.0	6	10.0
2	046	OTHER DISORDERS OF THE EYE AGE >17 W CC	115	6.9	3.6	3.3	7	28.4	14	22.1	23	17.4
2	047	OTHER DISORDERS OF THE EYE AGE >17 W/O CC	50	3.9	2.5	1.4	0	0.0	0	0.0	7	9.1
3	049	MAJOR HEAD & NECK PROCEDURES	34	5.2	3.7	1.5	2	30.5	2	30.5	5	18.0
3	050	SIALOADENECTOMY	138	2.0	1.6	0.4	1	31.0	3	19.3	4	17.3
3	051	SALIVARY GLAND PROCEDURES EXCEPT SIALOADENECTOMY	28	2.9	1.8	1.1	1	22.0	1	22.0	3	12.3
3	052	CLEFT LIP & PALATE REPAIR	8	1.0	1.9	(0.9)	0	0.0	0	0.0	0	0.0
3	053	SINUS & MASTOID PROCEDURES AGE >17	93	2.5	2.3	0.2	0	0.0	3	14.7	9	11.0
3	055	MISCELLANEOUS EAR, NOSE, MOUTH & THROAT PROCEDURES	46	3.4	2.0	1.4	1	27.0	5	16.4	6	15.3
3	056	RHINOPLASTY	21	2.9	2.1	0.8	1	31.0	1	31.0	1	31.0

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							Cases	ALOS	Cases	ALOS	Cases	ALOS
3	057	T&A PROC, EXCEPT TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17	14	5.4	2.6	2.8	0	0.0	1	17.0	3	13.0
3	058	T&A PROC, EXCEPT TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE 0-17	1	1.0	1.5	(0.5)	0	0.0	0	0.0	0	0.0
3	059	TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17	4	1.8	1.8	(0.1)	0	0.0	0	0.0	0	0.0
3	061	MYRINGOTOMY W TUBE INSERTION AGE >17	6	2.3	2.7	(0.4)	0	0.0	0	0.0	1	9.0
3	063	OTHER EAR, NOSE, MOUTH & THROAT O.R. PROCEDURES	95	6.6	3.0	3.6	8	30.1	9	28.6	17	20.5
3	064	EAR, NOSE, MOUTH & THROAT MALIGNANCY	136	8.5	4.4	4.1	14	30.0	25	24.0	44	18.8
3	065	DYSEQUILIBRIUM	1,270	3.9	2.4	1.5	10	23.4	25	17.6	116	11.2
3	066	EPISTAXIS	264	3.8	2.6	1.2	0	0.0	4	15.0	24	10.1
3	067	EPIGLOTTITIS	16	4.1	3.0	1.1	0	0.0	1	17.0	1	17.0
3	068	OTITIS MEDIA & URI AGE >17 W CC	247	5.4	3.4	2.0	3	52.7	8	29.5	26	16.0
3	069	OTITIS MEDIA & URI AGE >17 W/O CC	88	3.9	2.8	1.1	1	30.0	1	30.0	10	11.0
3	070	OTITIS MEDIA & URI AGE 0-17	1	1.0	2.1	(1.1)	0	0.0	0	0.0	0	0.0
3	071	LARYNGOTRACHEITIS	4	3.3	3.2	0.0	0	0.0	0	0.0	0	0.0
3	072	NASAL TRAUMA & DEFORMITY	40	4.4	2.8	1.6	1	33.0	1	33.0	5	14.0
3	073	OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES AGE >17	207	5.7	3.3	2.4	7	23.6	20	18.6	39	14.4
3	074	OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES AGE 0-17	1	3.0	2.1	0.9	0	0.0	0	0.0	0	0.0
4	075	MAJOR CHEST PROCEDURES	1,059	11.8	8.1	3.7	130	34.5	220	28.9	308	25.2
4	076	OTHER RESP SYSTEM O.R. PROCEDURES W CC	1,766	16.2	8.4	7.8	317	39.8	512	32.5	814	26.3
4	077	OTHER RESP SYSTEM O.R. PROCEDURES W/O CC	76	6.9	3.4	3.5	5	29.2	9	23.0	26	15.0
4	078	PULMONARY EMBOLISM	674	8.5	6.3	2.2	18	29.0	41	23.2	144	16.3
4	079	RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 W CC	5,223	11.7	6.7	5.0	568	31.8	1004	26.1	1933	20.2
4	080	RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 W/O CC	228	7.1	4.7	2.4	6	23.8	15	19.5	53	13.8
4	081	RESPIRATORY INFECTIONS & INFLAMMATIONS AGE 0-17	1	4.0	6.1	(2.1)	0	0.0	0	0.0	0	0.0
4	082	RESPIRATORY NEOPLASMS	2,347	9.1	5.3	3.8	183	29.2	359	23.6	723	18.1
4	083	MAJOR CHEST TRAUMA W CC	172	7.7	4.4	3.3	9	33.6	14	27.6	41	16.9
4	084	MAJOR CHEST TRAUMA W/O CC	42	2.7	2.6	0.1	0	0.0	0	0.0	1	9.0
4	085	PLEURAL EFFUSION W CC	585	8.1	5.1	3.0	36	27.5	66	22.8	145	17.3
4	086	PLEURAL EFFUSION W/O CC	34	5.0	3.0	2.0	1	30.0	1	30.0	4	14.3
4	087	PULMONARY EDEMA & RESPIRATORY FAILURE	1,954	8.7	4.8	3.9	127	29.7	266	22.8	667	16.1
4	088	CHRONIC OBSTRUCTIVE PULMONARY DISEASE	10,456	7.2	4.4	2.8	362	26.6	802	21.1	2244	15.0
4	089	SIMPLE PNEUMONIA & PLEURISY AGE >17 W CC	13,461	8.2	5.2	3.0	496	29.2	1162	22.5	3041	16.3
4	090	SIMPLE PNEUMONIA & PLEURISY AGE >17 W/O CC	1,015	5.3	3.8	1.5	6	27.2	25	18.6	123	11.8
4	091	SIMPLE PNEUMONIA & PLEURISY AGE 0-17	4	4.3	3.3	1.0	0	0.0	0	0.0	0	0.0
4	092	INTERSTITIAL LUNG DISEASE W CC	320	8.0	5.1	2.9	9	28.9	30	21.3	80	16.0
4	093	INTERSTITIAL LUNG DISEASE W/O CC	29	5.5	3.5	2.0	1	19.0	1	19.0	6	11.2
4	094	PNEUMOTHORAX W CC	273	8.7	4.9	3.8	19	35.0	36	26.9	68	20.0
4	095	PNEUMOTHORAX W/O CC	29	4.0	3.1	0.9	0	0.0	0	0.0	1	9.0
4	096	BRONCHITIS & ASTHMA AGE >17 W CC	1,575	6.0	4.0	2.0	23	30.6	64	21.5	219	14.3
4	097	BRONCHITIS & ASTHMA AGE >17 W/O CC	707	4.4	3.2	1.2	6	23.7	14	19.2	56	12.4
4	098	BRONCHITIS & ASTHMA AGE 0-17	3	2.7	3.6	(0.9)	0	0.0	0	0.0	0	0.0
4	099	RESPIRATORY SIGNS & SYMPTOMS W CC	408	4.9	2.3	2.6	9	31.8	27	20.3	68	13.7
4	100	RESPIRATORY SIGNS & SYMPTOMS W/O CC	175	3.0	1.7	1.3	1	21.0	3	16.3	11	10.5
4	101	OTHER RESPIRATORY SYSTEM DIAGNOSES W CC	508	6.1	3.3	2.8	17	35.1	35	25.3	97	15.9
4	102	OTHER RESPIRATORY SYSTEM DIAGNOSES W/O CC	111	3.1	2.2	0.9	0	0.0	1	14.0	6	9.5
5	103	HEART TRANSPLANT	7	67.6	31.6	36.0	3	123.7	3	123.7	4	103.0
5	104	CARDIAC VALVE & OTH MAJ CARDIOTHORACIC PROC W CARD CATH	1,034	13.3	9.9	3.4	114	36.7	185	31.4	338	25.2
5	105	CARDIAC VALVE & OTH MAJ CARDIOTHORACIC PROC W/O CARD CATH	705	10.8	7.9	2.9	38	37.5	78	28.9	168	21.7
5	106	CORONARY BYPASS WITH PTCA	1,307	12.9	9.1	3.8	93	33.3	173	27.9	356	22.1
5	107	CORONARY BYPASS W CARDIAC CATH	1,803	9.8	9.5	0.3	80	32.5	167	25.8	366	19.7
5	108	OTHER CARDIOTHORACIC PROCEDURES	157	11.0	8.6	2.4	10	38.0	17	31.1	37	23.2
5	109	CORONARY BYPASS W/O CARDIAC CATH	430	8.9	7.0	1.9	38	25.7	119	15.9	433	9.3

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							Cases	ALOS	Cases	ALOS	Cases	ALOS
5	110	MAJOR CARDIOVASCULAR PROCEDURES W CC	1,509	10.7	7.4	3.3	135	36.8	222	30.1	442	22.4
5	111	MAJOR CARDIOVASCULAR PROCEDURES W/O CC	136	5.3	5.1	0.2	1	26.0	2	21.0	8	14.0
5	112	PERCUTANEOUS CARDIOVASCULAR PROCEDURES	2,202	4.2	2.8	1.4	48	27.9	107	21.1	304	14.2
5	113	AMPUTATION FOR CIRC SYSTEM DISORDERS EXCEPT UPPER LIMB & TOE	1,290	20.0	9.8	10.2	362	41.5	489	36.4	662	31.3
5	114	UPPER LIMB & TOE AMPUTATION FOR CIRC SYSTEM DISORDERS	282	11.0	6.0	5.0	34	30.6	62	25.4	101	20.8
5	115	PERM PACE IMPLNT W AMI,HRT FAIL OR SHOCK OR AICD LEAD OR GEN PROC	616	11.4	6.3	5.1	72	31.1	121	25.9	240	19.9
5	116	OTH PERM CARDIAC PACEMAKER IMPLANT OR PTCA W CORONARY ART STENT	8,302	4.8	3.0	1.8	193	29.6	489	21.2	1298	14.5
5	117	CARDIAC PACEMAKER REVISION EXCEPT DEVICE REPLACEMENT	126	4.6	2.7	1.9	3	25.7	6	20.3	26	12.0
5	118	CARDIAC PACEMAKER DEVICE REPLACEMENT	329	3.8	2.0	1.8	7	32.4	13	23.5	52	12.1
5	119	VEIN LIGATION & STRIPPING	71	7.1	3.2	3.9	6	27.8	11	22.1	22	16.8
5	120	OTHER CIRCULATORY SYSTEM O.R. PROCEDURES	1,650	12.4	4.9	7.5	337	33.0	489	27.9	754	22.3
5	121	CIRCULATORY DISORDERS W AMI & MAJOR COMP DISCH ALIVE	5,612	8.1	5.7	2.4	229	28.8	560	22.3	1262	16.9
5	122	CIRCULATORY DISORDERS W AMI W/O MAJOR COMP DISCH ALIVE	2,386	4.9	3.6	1.3	15	30.1	44	20.5	250	12.3
5	123	CIRCULATORY DISORDERS W AMI, EXPIRED	1,406	6.1	2.6	3.5	107	26.7	188	21.6	391	15.5
5	124	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH & COMPLEX DIAG	4,376	5.5	3.4	2.1	114	26.2	264	20.2	786	13.7
5	125	CIRCULATORY DISORDERS EXCEPT AMI, W CARD CATH W/O COMPLEX DIAG	2,007	3.1	2.2	0.9	8	24.5	37	16.2	153	11.1
5	126	ACUTE & SUBACUTE ENDOCARDITIS	243	15.7	9.7	6.0	47	35.2	65	31.5	108	25.6
5	127	HEART FAILURE & SHOCK	26,166	7.2	4.3	2.9	1103	28.5	2346	22.2	5867	15.8
5	128	DEEP VEIN THROMBOPHLEBITIS	462	7.0	5.3	1.7	8	25.6	17	21.6	61	15.0
5	129	CARDIAC ARREST, UNEXPLAINED	96	3.9	1.8	2.1	5	26.8	11	19.3	19	14.4
5	130	PERIPHERAL VASCULAR DISORDERS W CC	2,851	7.7	4.9	2.8	106	29.2	221	23.3	560	16.9
5	131	PERIPHERAL VASCULAR DISORDERS W/O CC	762	5.3	3.9	1.4	3	133.7	11	48.3	54	18.8
5	132	ATHEROSCLEROSIS W CC	6,458	4.3	2.5	1.8	83	25.7	205	19.0	753	12.0
5	133	ATHEROSCLEROSIS W/O CC	251	3.4	2.0	1.4	4	29.5	7	22.9	20	13.8
5	134	HYPERTENSION	1,220	5.3	2.7	2.6	36	27.6	72	21.0	233	13.0
5	135	CARDIAC CONGENITAL & VALVULAR DISORDERS AGE >17 W CC	322	6.3	3.3	3.0	12	38.0	26	25.7	57	17.3
5	136	CARDIAC CONGENITAL & VALVULAR DISORDERS AGE >17 W/O CC	60	5.6	2.4	3.2	4	23.5	5	22.2	15	13.4
5	138	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W CC	6,999	5.6	3.1	2.5	166	28.5	374	21.3	1164	14.0
5	139	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W/O CC	2,669	3.4	2.1	1.3	2	29.0	20	16.2	141	10.2
5	140	ANGINA PECTORIS	3,374	3.8	2.4	1.4	33	26.8	80	19.7	287	12.0
5	141	SYNCOPE & COLLAPSE W CC	3,780	5.3	3.0	2.3	83	30.2	179	22.3	534	14.4
5	142	SYNCOPE & COLLAPSE W/O CC	2,031	3.5	2.2	1.3	7	29.0	28	17.9	148	10.8
5	143	CHEST PAIN	5,065	3.0	1.8	1.2	25	27.0	78	17.9	359	10.2
5	144	OTHER CIRCULATORY SYSTEM DIAGNOSES W CC	2,474	6.9	3.8	3.1	139	29.0	297	21.8	632	15.9
5	145	OTHER CIRCULATORY SYSTEM DIAGNOSES W/O CC	193	3.2	2.2	1.0	1	19.0	2	18.0	9	10.8
6	146	RECTAL RESECTION W CC	394	12.6	9.0	3.6	29	40.8	55	31.8	95	25.5
6	147	RECTAL RESECTION W/O CC	82	7.1	6.1	1.0	0	0.0	3	17.7	8	15.5
6	148	MAJOR SMALL & LARGE BOWEL PROCEDURES W CC	4,268	14.5	10.3	4.2	477	39.2	815	32.4	1341	26.6
6	149	MAJOR SMALL & LARGE BOWEL PROCEDURES W/O CC	440	7.1	6.3	0.8	3	24.0	8	20.6	29	15.2
6	150	PERITONEAL ADHESIOLYSIS W CC	697	11.6	8.9	2.7	50	36.6	88	30.2	178	23.4
6	151	PERITONEAL ADHESIOLYSIS W/O CC	159	5.3	4.8	0.5	0	0.0	2	19.0	25	11.7
6	152	MINOR SMALL & LARGE BOWEL PROCEDURES W CC	132	8.9	7.0	1.9	7	36.4	13	29.1	22	23.4
6	153	MINOR SMALL & LARGE BOWEL PROCEDURES W/O CC	60	5.1	5.1	(0.0)	0	0.0	0	0.0	0	0.0
6	154	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W CC	764	17.1	10.3	6.8	152	37.6	211	33.4	329	27.8
6	155	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W/O CC	65	4.9	3.6	1.3	0	0.0	1	14.0	10	10.4
6	157	ANAL & STOMAL PROCEDURES W CC	227	6.9	3.9	3.0	16	27.5	29	22.1	62	15.9
6	158	ANAL & STOMAL PROCEDURES W/O CC	129	2.2	2.1	0.1	0	0.0	0	0.0	5	9.2
6	159	HERNIA PROCEDURES EXCEPT INGUINAL & FEMORAL AGE >17 W CC	461	5.6	3.7	1.9	15	28.3	32	21.3	83	14.8
6	160	HERNIA PROCEDURES EXCEPT INGUINAL & FEMORAL AGE >17 W/O CC	314	2.4	2.2	0.2	0	0.0	1	15.0	10	10.2
6	161	INGUINAL & FEMORAL HERNIA PROCEDURES AGE >17 W CC	524	4.2	2.9	1.3	17	24.9	31	20.0	84	13.3
6	162	INGUINAL & FEMORAL HERNIA PROCEDURES AGE >17 W/O CC	332	1.8	1.7	0.1	1	20.0	1	20.0	5	10.2

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6	164	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG W CC	142	9.2	7.3	1.9	2	50.0	8	27.4	30	18.3
6	165	APPENDECTOMY W COMPLICATED PRINCIPAL DIAG W/O CC	74	5.7	4.3	1.4	1	20.0	1	20.0	5	13.2
6	166	APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAG W CC	91	6.0	4.0	2.0	2	42.0	3	33.0	13	16.9
6	167	APPENDECTOMY W/O COMPLICATED PRINCIPAL DIAG W/O CC	70	3.2	2.4	0.8	0	0.0	0	0.0	2	8.5
3	168	MOUTH PROCEDURES W CC	34	7.6	3.1	4.5	3	34.3	5	26.6	9	20.1
3	169	MOUTH PROCEDURES W/O CC	23	1.9	1.9	(0.0)	0	0.0	0	0.0	1	7.0
6	170	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W CC	416	15.3	7.9	7.4	85	37.1	118	32.5	169	27.6
6	171	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W/O CC	21	4.4	3.6	0.8	0	0.0	1	14.0	2	12.5
6	172	DIGESTIVE MALIGNANCY W CC	1,288	8.9	5.2	3.7	111	27.9	196	23.6	373	18.4
6	173	DIGESTIVE MALIGNANCY W/O CC	126	4.7	2.8	1.9	3	33.7	9	21.3	19	15.5
6	174	G.I. HEMORRHAGE W CC	7,544	6.4	4.0	2.4	205	30.4	454	22.8	1260	15.6
6	175	G.I. HEMORRHAGE W/O CC	859	3.5	2.5	1.0	2	25.0	7	17.1	45	10.7
6	176	COMPLICATED PEPTIC ULCER	496	6.5	4.3	2.2	19	28.3	37	22.7	90	16.1
6	177	UNCOMPLICATED PEPTIC ULCER W CC	295	6.3	3.7	2.6	7	24.3	20	18.5	62	12.9
6	178	UNCOMPLICATED PEPTIC ULCER W/O CC	125	4.2	2.7	1.5	1	32.0	3	19.3	11	12.1
6	179	INFLAMMATORY BOWEL DISEASE	490	7.3	5.0	2.3	15	29.1	36	22.3	92	16.3
6	180	G.I. OBSTRUCTION W CC	2,643	7.0	4.2	2.8	108	28.1	233	22.0	549	16.0
6	181	G.I. OBSTRUCTION W/O CC	694	4.1	2.9	1.2	1	19.0	5	15.6	35	11.2
6	182	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 W CC	7,040	5.9	3.4	2.5	194	28.2	448	21.0	1288	14.2
6	183	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 W/O CC	2,297	3.7	2.4	1.3	14	23.9	46	17.2	179	11.2
6	184	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE 0-17	5	2.4	2.5	(0.1)	0	0.0	0	0.0	0	0.0
3	185	DENTAL & ORAL DIS EXCEPT EXTRACTIONS & RESTORATIONS, AGE >17	135	5.2	3.3	1.9	2	40.5	8	22.1	15	16.6
3	187	DENTAL EXTRACTIONS & RESTORATIONS	34	4.1	3.0	1.1	0	0.0	0	0.0	5	9.2
6	188	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W CC	2,798	6.8	4.1	2.7	138	29.4	255	23.5	553	17.1
6	189	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W/O CC	489	3.4	2.4	1.0	5	31.6	8	25.1	39	12.2
6	190	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE 0-17	2	7.0	3.9	3.1	0	0.0	0	0.0	0	0.0
7	191	PANCREAS, LIVER & SHUNT PROCEDURES W CC	237	17.5	10.8	6.7	40	45.7	61	38.3	92	31.9
7	192	PANCREAS, LIVER & SHUNT PROCEDURES W/O CC	21	7.3	5.4	1.9	0	0.0	2	17.5	4	15.5
7	193	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W CC	205	15.1	10.3	4.8	28	41.0	41	35.3	70	27.9
7	194	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W/O CC	22	7.0	5.8	1.2	1	22.0	2	21.0	3	18.3
7	195	CHOLECYSTECTOMY W C.D.E. W CC	159	13.1	8.3	4.8	13	36.5	26	29.2	60	21.3
7	196	CHOLECYSTECTOMY W C.D.E. W/O CC	27	6.1	4.9	1.2	0	0.0	0	0.0	1	14.0
7	197	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W CC	662	10.6	7.1	3.5	40	33.2	78	26.6	171	20.1
7	198	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W/O CC	172	5.1	4.0	1.1	0	0.0	1	16.0	7	12.6
7	199	HEPATOBILIARY DIAGNOSTIC PROCEDURE FOR MALIGNANCY	57	10.1	7.7	2.4	3	25.0	12	20.4	17	19.0
7	200	HEPATOBILIARY DIAGNOSTIC PROCEDURE FOR NON-MALIGNANCY	34	10.8	7.4	3.4	4	29.8	7	25.6	11	21.8
7	201	OTHER HEPATOBILIARY OR PANCREAS O.R. PROCEDURES	80	17.2	10.4	6.8	14	37.4	24	31.6	39	26.8
7	202	CIRRHOSIS & ALCOHOLIC HEPATITIS	885	8.8	5.1	3.7	61	32.9	116	25.4	240	18.8
7	203	MALIGNANCY OF HEPATOBILIARY SYSTEM OR PANCREAS	1,089	8.8	5.1	3.7	76	27.7	162	22.4	322	17.6
7	204	DISORDERS OF PANCREAS EXCEPT MALIGNANCY	1,655	7.5	4.7	2.8	85	29.9	168	23.3	401	16.5
7	205	DISORDERS OF LIVER EXCEPT MALIG,CIRR,ALC HEPA W CC	610	8.1	4.9	3.2	46	27.4	81	22.9	164	17.4
7	206	DISORDERS OF LIVER EXCEPT MALIG,CIRR,ALC HEPA W/O CC	52	4.6	3.1	1.5	1	24.0	3	20.0	6	15.0
7	207	DISORDERS OF THE BILIARY TRACT W CC	957	6.8	4.0	2.8	32	29.9	70	22.5	196	15.4
7	208	DISORDERS OF THE BILIARY TRACT W/O CC	316	3.9	2.3	1.6	2	20.5	7	16.0	33	10.7
8	209	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF LOWER EXTREMITY	6,839	6.3	4.9	1.4	152	31.5	297	24.8	725	17.6
8	210	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W CC	3,900	9.0	6.1	2.9	169	33.8	341	26.2	759	19.2
8	211	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W/O CC	713	5.9	4.7	1.2	3	25.0	12	18.9	65	13.0
8	212	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE 0-17	2	3.5	3.2	0.3	0	0.0	0	0.0	0	0.0
8	213	AMPUTATION FOR MUSCULOSKELETAL SYSTEM & CONN TISSUE DISORDERS	182	11.9	6.2	5.7	20	32.4	39	25.7	75	19.9
8	216	BIOPSIES OF MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE	203	12.5	7.0	5.5	25	32.3	45	26.8	85	21.2
8	217	WND DEBRID & SKN GRFT EXCEPT HAND,FOR MUSCSKELET & CONN TISS DIS	722	18.6	8.7	9.9	166	43.4	240	36.8	327	31.6

New Jersey Hospital Association
1998 UB Data for Post-Acute Care Work Group

Medicare Cases by DRG

MDC	DRG	DRG Description	Cases	ALOS	FY 1999 Geometric Mean LOS	Variance to Geometric Mean	15 Days over Geometric Mean LOS		10 Days over Geometric Mean LOS		5 Days over Geometric Mean LOS	
							Cases	ALOS	Cases	ALOS	Cases	ALOS
8	218	LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR AGE >17 W CC	558	7.3	4.2	3.1	28	32.1	63	23.5	113	18.2
8	219	LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR AGE >17 W/O CC	468	3.7	2.8	0.9	4	26.0	8	20.3	34	11.6
8	220	LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR AGE 0-17	1	1.0	5.3	(4.3)	0	0.0	0	0.0	0	0.0
8	223	MAJOR SHOULDER/ELBOW PROC, OR OTHER UPPER EXTREMITY PROC W CC	454	2.5	2.0	0.5	2	25.0	7	18.1	23	12.0
8	224	SHOULDER,ELBOW OR FOREARM PROC,EXC MAJOR JOINT PROC, W/O CC	281	1.9	1.7	0.2	0	0.0	0	0.0	3	9.0
8	225	FOOT PROCEDURES	166	5.1	3.0	2.1	9	26.0	15	22.1	27	17.1
8	226	SOFT TISSUE PROCEDURES W CC	139	7.5	4.0	3.5	11	26.9	21	21.9	41	17.0
8	227	SOFT TISSUE PROCEDURES W/O CC	118	3.1	2.1	1.0	2	24.0	4	19.3	8	14.4
8	228	MAJOR THUMB OR JOINT PROC,OR OTH HAND OR WRIST PROC W CC	73	5.5	2.3	3.2	3	35.7	6	25.0	17	14.9
8	229	HAND OR WRIST PROC, EXCEPT MAJOR JOINT PROC, W/O CC	37	2.6	1.8	0.8	1	19.0	1	19.0	3	11.7
8	230	LOCAL EXCISION & REMOVAL OF INT FIX DEVICES OF HIP & FEMUR	70	6.6	3.1	3.5	4	38.8	9	26.3	13	21.5
8	231	LOCAL EXCISION & REMOVAL OF INT FIX DEVICES EXCEPT HIP & FEMUR	247	5.1	3.0	2.1	12	26.0	20	21.7	49	15.3
8	232	ARTHROSCOPY	15	5.7	2.3	3.4	2	22.0	3	19.3	4	17.0
8	233	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W CC	109	10.2	5.3	4.9	11	32.1	20	25.8	37	19.9
8	234	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W/O CC	48	4.1	2.8	1.3	0	0.0	0	0.0	6	9.2
8	235	FRACTURES OF FEMUR	177	8.1	3.9	4.2	18	29.2	25	26.1	44	19.6
8	236	FRACTURES OF HIP & PELVIS	1,136	6.4	4.1	2.3	30	31.3	71	22.9	198	15.5
8	237	SPRAINS, STRAINS, & DISLOCATIONS OF HIP, PELVIS & THIGH	41	4.6	2.9	1.7	0	0.0	1	17.0	4	12.3
8	238	OSTEOMYELITIS	302	11.7	6.7	5.0	38	32.6	65	27.0	108	21.7
8	239	PATHOLOGICAL FRACTURES & MUSCULOSKELETAL & CONN TISS MALIGNANCY	1,949	8.6	5.0	3.6	114	29.4	237	23.2	496	17.8
8	240	CONNECTIVE TISSUE DISORDERS W CC	330	8.2	5.0	3.2	23	28.0	37	24.2	76	18.4
8	241	CONNECTIVE TISSUE DISORDERS W/O CC	98	5.3	3.1	2.2	2	26.0	4	21.0	12	14.1
8	242	SEPTIC ARTHRITIS	82	9.5	5.2	4.3	8	33.4	10	30.2	22	20.7
8	243	MEDICAL BACK PROBLEMS	2,381	6.5	3.8	2.7	68	27.4	183	19.9	538	13.7
8	244	BONE DISEASES & SPECIFIC ARTHROPATHIES W CC	434	6.8	3.9	2.9	12	33.0	37	21.2	103	14.4
8	245	BONE DISEASES & SPECIFIC ARTHROPATHIES W/O CC	156	4.7	2.9	1.8	3	25.3	6	19.7	23	12.0
8	246	NON-SPECIFIC ARTHROPATHIES	37	6.3	3.1	3.2	1	44.0	2	29.0	7	15.6
8	247	SIGNS & SYMPTOMS OF MUSCULOSKELETAL SYSTEM & CONN TISSUE	257	5.0	2.6	2.4	9	22.6	19	18.6	45	13.5
8	248	TENDONITIS, MYOSITIS & BURSITIS	262	6.1	3.6	2.5	5	27.8	16	19.5	49	13.6
8	249	AFTERCARE, MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE	356	5.6	2.6	3.0	18	29.4	39	21.7	78	15.3
8	250	FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE >17 W CC	129	6.0	3.2	2.8	4	25.3	7	21.4	20	14.4
8	251	FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE >17 W/O CC	76	4.0	2.3	1.7	0	0.0	2	14.5	7	11.3
8	252	FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE 0-17	1	1.0	1.8	(0.8)	0	0.0	0	0.0	0	0.0
8	253	FX, SPRN, STRN & DISL OF UPARM,LOWLEG EX FOOT AGE >17 W CC	650	6.5	3.7	2.8	32	28.2	61	22.0	147	15.2
8	254	FX, SPRN, STRN & DISL OF UPARM,LOWLEG EX FOOT AGE >17 W/O CC	349	3.8	2.7	1.1	2	34.5	7	19.7	32	11.5
8	256	OTHER MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE DIAGNOSES	194	7.7	3.8	3.9	13	24.9	32	19.4	66	14.8
9	257	TOTAL MASTECTOMY FOR MALIGNANCY W CC	600	3.3	2.4	0.9	6	29.5	16	20.3	57	12.1
9	258	TOTAL MASTECTOMY FOR MALIGNANCY W/O CC	428	2.1	1.9	0.2	0	0.0	1	15.0	11	8.5
9	259	SUBTOTAL MASTECTOMY FOR MALIGNANCY W CC	225	2.8	2.0	0.8	4	32.0	9	22.3	20	15.3
9	260	SUBTOTAL MASTECTOMY FOR MALIGNANCY W/O CC	263	1.4	1.4	(0.0)	0	0.0	1	13.0	2	12.0
9	261	BREAST PROC FOR NON-MALIGNANCY EXCEPT BIOPSY & LOCAL EXCISION	49	1.7	1.7	(0.0)	0	0.0	1	13.0	2	10.0
9	262	BREAST BIOPSY & LOCAL EXCISION FOR NON-MALIGNANCY	37	3.2	2.9	0.3	1	18.0	1	18.0	5	11.0
9	263	SKIN GRAFT &/OR DEBRID FOR SKN ULCER OR CELLULITIS W CC	936	15.8	8.8	7.0	168	42.7	244	35.9	372	28.9
9	264	SKIN GRAFT &/OR DEBRID FOR SKN ULCER OR CELLULITIS W/O CC	129	6.8	5.4	1.4	8	27.1	12	24.3	25	17.8
9	265	SKIN GRAFT &/OR DEBRID EXCEPT FOR SKIN ULCER OR CELLULITIS W CC	148	9.4	4.2	5.2	22	31.0	30	27.1	52	20.7
9	266	SKIN GRAFT &/OR DEBRID EXCEPT FOR SKIN ULCER OR CELLULITIS W/O CC	105	2.7	2.5	0.2	1	21.0	3	16.3	5	13.6
9	267	PERIANAL & PILONIDAL PROCEDURES	9	2.4	2.9	(0.5)	0	0.0	0	0.0	0	0.0
9	268	SKIN, SUBCUTANEOUS TISSUE & BREAST PLASTIC PROCEDURES	43	2.9	2.3	0.6	1	37.0	2	26.5	3	20.7
9	269	OTHER SKIN, SUBCUT TISS & BREAST PROC W CC	324	10.4	5.6	4.8	43	30.1	71	25.1	125	19.7
9	270	OTHER SKIN, SUBCUT TISS & BREAST PROC W/O CC	152	2.5	2.2	0.3	1	18.0	3	15.0	13	10.5
9	271	SKIN ULCERS	615	10.3	5.7	4.6	54	35.1	89	28.3	191	20.1

Medicare Cases by DRG

MDC	DRG	DRG Description	Cases	ALOS	FY 1999 Geometric Mean LOS	Variance to Geometric Mean	15 Days over Geometric Mean LOS		10 Days over Geometric Mean LOS		5 Days over Geometric Mean LOS	
							Cases	ALOS	Cases	ALOS	Cases	ALOS
9	272	MAJOR SKIN DISORDERS W CC	151	9.1	4.9	4.2	11	32.9	15	28.7	45	18.2
9	273	MAJOR SKIN DISORDERS W/O CC	31	4.0	3.6	0.4	0	0.0	0	0.0	2	10.0
9	274	MALIGNANT BREAST DISORDERS W CC	93	9.3	4.8	4.5	9	27.3	16	22.7	31	17.1
9	275	MALIGNANT BREAST DISORDERS W/O CC	4	1.5	2.6	(1.1)	0	0.0	0	0.0	0	0.0
9	276	NON-MALIGANT BREAST DISORDERS	28	5.8	3.6	2.2	0	0.0	1	15.0	8	11.3
9	277	CELLULITIS AGE >17 W CC	2,937	7.6	4.8	2.8	103	28.4	213	22.9	592	16.3
9	278	CELLULITIS AGE >17 W/O CC	846	5.4	3.8	1.6	6	24.7	30	17.0	113	12.2
9	279	CELLULITIS AGE 0-17	1	2.0	4.3	(2.3)	0	0.0	0	0.0	0	0.0
9	280	TRAUMA TO THE SKIN, SUBCUT TISS & BREAST AGE >17 W CC	540	6.0	3.3	2.7	20	26.3	41	20.5	109	14.2
9	281	TRAUMA TO THE SKIN, SUBCUT TISS & BREAST AGE >17 W/O CC	191	4.0	2.4	1.6	3	30.0	7	21.1	22	13.0
9	283	MINOR SKIN DISORDERS W CC	196	7.9	3.6	4.3	14	33.0	26	24.8	55	17.2
9	284	MINOR SKIN DISORDERS W/O CC	65	4.9	2.6	2.3	2	34.0	4	23.8	10	14.7
10	285	AMPUTAT OF LOWER LIMB FOR ENDOCRINE,NUTRIT,& METABOL DISORDERS	278	16.2	8.1	8.1	54	38.9	85	32.3	128	26.8
10	286	ADRENAL & PITUITARY PROCEDURES	31	9.9	5.5	4.4	4	35.8	4	35.8	7	25.1
10	287	SKIN GRAFTS & WOUND DEBRID FOR ENDOC, NUTRIT & METAB DISORDERS	414	15.7	8.0	7.7	76	39.0	122	32.2	177	27.0
10	288	O.R. PROCEDURES FOR OBESITY	36	7.4	4.7	2.7	2	31.5	3	26.7	5	20.4
10	289	PARATHYROID PROCEDURES	89	4.0	2.2	1.8	4	33.0	5	29.0	9	20.9
10	290	THYROID PROCEDURES	231	2.8	1.9	0.9	6	26.3	10	21.5	17	15.9
10	291	THYROGLOSSAL PROCEDURES	7	1.1	1.5	(0.4)	0	0.0	0	0.0	0	0.0
10	292	OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W CC	222	16.2	7.5	8.7	41	42.6	65	34.0	102	27.1
10	293	OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W/O CC	11	18.7	3.8	14.9	2	63.0	4	40.5	6	30.7
10	294	DIABETES AGE >35	3,126	7.0	3.8	3.2	145	27.8	324	21.0	819	14.7
10	295	DIABETES AGE 0-35	103	5.3	3.0	2.3	4	31.8	6	25.8	15	16.3
10	296	NUTRITIONAL & MISC METABOLIC DISORDERS AGE >17 W CC	7,519	8.1	4.1	4.0	462	30.6	903	23.8	2022	17.1
10	297	NUTRITIONAL & MISC METABOLIC DISORDERS AGE >17 W/O CC	1,183	4.9	2.9	2.0	18	30.0	53	19.7	193	12.3
10	298	NUTRITIONAL & MISC METABOLIC DISORDERS AGE 0-17	3	3.7	2.4	1.3	0	0.0	0	0.0	0	0.0
10	299	INBORN ERRORS OF METABOLISM	30	7.5	3.9	3.6	3	28.3	3	28.3	8	17.9
10	300	ENDOCRINE DISORDERS W CC	460	8.3	4.8	3.5	29	26.1	53	22.2	124	16.8
10	301	ENDOCRINE DISORDERS W/O CC	73	4.9	2.9	2.0	1	20.0	1	20.0	10	11.3
11	302	KIDNEY TRANSPLANT	119	13.5	8.6	4.9	9	49.0	19	34.7	35	26.3
11	303	KIDNEY,URETER & MAJOR BLADDER PROCEDURES FOR NEOPLASM	593	10.1	7.5	2.6	38	39.6	67	31.1	118	24.0
11	304	KIDNEY,URETER & MAJOR BLADDER PROC FOR NON-NEOPL W CC	361	11.9	6.5	5.4	47	34.8	74	29.0	131	22.4
11	305	KIDNEY,URETER & MAJOR BLADDER PROC FOR NON-NEOPL W/O CC	72	3.8	3.2	0.6	0	0.0	0	0.0	4	9.8
11	306	PROSTATECTOMY W CC	309	7.3	3.8	3.5	20	26.9	45	20.6	107	14.9
11	307	PROSTATECTOMY W/O CC	80	2.3	2.0	0.3	0	0.0	0	0.0	2	10.0
11	308	MINOR BLADDER PROCEDURES W CC	284	7.3	4.1	3.2	24	27.1	36	23.7	77	17.3
11	309	MINOR BLADDER PROCEDURES W/O CC	104	2.8	2.1	0.7	0	0.0	1	16.0	5	11.8
11	310	TRANSURETHRAL PROCEDURES W CC	1,254	4.7	3.0	1.7	46	24.4	89	19.7	243	13.2
11	311	TRANSURETHRAL PROCEDURES W/O CC	419	1.8	1.6	0.2	0	0.0	0	0.0	13	8.2
11	312	URETHRAL PROCEDURES, AGE >17 W CC	68	5.6	2.9	2.7	5	25.6	7	22.6	15	15.8
11	313	URETHRAL PROCEDURES, AGE >17 W/O CC	32	1.5	1.8	(0.3)	0	0.0	0	0.0	0	0.0
11	315	OTHER KIDNEY & URINARY TRACT O.R. PROCEDURES	1,076	10.9	4.6	6.3	186	33.8	292	27.6	462	21.8
11	316	RENAL FAILURE	2,631	8.8	5.0	3.8	188	30.2	368	24.1	745	18.3
11	317	ADMIT FOR RENAL DIALYSIS	30	8.6	2.0	6.6	6	24.7	9	20.9	13	16.8
11	318	KIDNEY & URINARY TRACT NEOPLASMS W CC	239	8.3	4.4	3.9	17	29.9	32	23.8	73	16.9
11	319	KIDNEY & URINARY TRACT NEOPLASMS W/O CC	22	8.5	2.2	6.3	2	58.5	3	43.7	6	26.0
11	320	KIDNEY & URINARY TRACT INFECTIONS AGE >17 W CC	4,990	7.8	4.5	3.3	240	30.3	501	23.2	1257	16.2
11	321	KIDNEY & URINARY TRACT INFECTIONS AGE >17 W/O CC	674	4.9	3.4	1.5	5	22.4	15	18.1	79	11.9
11	322	KIDNEY & URINARY TRACT INFECTIONS AGE 0-17	3	5.0	3.3	1.7	0	0.0	0	0.0	0	0.0
11	323	URINARY STONES W CC, &/OR ESW LITHOTRIPSY	635	4.0	2.4	1.6	11	27.3	25	19.9	76	12.9
11	324	URINARY STONES W/O CC	270	2.5	1.6	0.9	1	101.0	1	101.0	9	18.9

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							Cases	ALOS	Cases	ALOS	Cases	ALOS
11	325	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE >17 W CC	327	5.3	3.0	2.3	10	27.2	21	21.1	57	14.5
11	326	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE >17 W/O CC	111	3.3	2.1	1.2	1	32.0	2	24.0	8	12.3
11	327	KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE 0-17	1	1.0	3.1	(2.1)	0	0.0	0	0.0	0	0.0
11	328	URETHRAL STRICTURE AGE >17 W CC	32	3.9	2.8	1.1	1	28.0	1	28.0	2	19.0
11	329	URETHRAL STRICTURE AGE >17 W/O CC	6	1.3	1.7	(0.4)	0	0.0	0	0.0	0	0.0
11	331	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W CC	1,270	6.9	4.2	2.7	57	28.6	115	22.7	284	16.2
11	332	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W/O CC	175	4.1	2.7	1.4	2	31.5	7	19.4	24	12.4
11	333	OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE 0-17	2	2.0	3.5	(1.5)	0	0.0	0	0.0	0	0.0
12	334	MAJOR MALE PELVIC PROCEDURES W CC	261	6.4	4.4	2.0	9	36.1	12	31.1	30	19.0
12	335	MAJOR MALE PELVIC PROCEDURES W/O CC	147	3.7	3.4	0.3	0	0.0	0	0.0	0	0.0
12	336	TRANSURETHRAL PROSTATECTOMY W CC	1,447	4.7	2.8	1.9	41	30.5	99	21.1	222	14.6
12	337	TRANSURETHRAL PROSTATECTOMY W/O CC	951	2.2	2.0	0.2	0	0.0	3	14.3	18	10.6
12	338	TESTES PROCEDURES, FOR MALIGNANCY	48	8.4	3.2	5.2	4	42.8	9	27.8	14	21.5
12	339	TESTES PROCEDURES, NON-MALIGNANCY AGE >17	51	3.6	2.9	0.7	1	20.0	4	16.8	5	16.0
12	341	PENIS PROCEDURES	169	4.9	2.1	2.8	7	39.6	14	27.4	23	20.1
12	342	CIRCUMCISION AGE >17	29	5.1	2.6	2.5	2	27.0	4	20.8	6	16.7
12	344	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROCEDURES FOR MALIGNANCY	248	2.4	1.8	0.6	3	33.7	4	28.8	14	14.9
12	345	OTHER MALE REPRODUCTIVE SYSTEM O.R. PROC EXCEPT FOR MALIGNANCY	46	5.8	2.5	3.3	3	25.0	6	19.3	11	14.7
12	346	MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W CC	210	7.0	4.3	2.7	10	29.2	20	23.2	52	16.4
12	347	MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W/O CC	12	6.8	2.3	4.5	1	45.0	1	45.0	3	20.3
12	348	BENIGN PROSTATIC HYPERTROPHY W CC	166	5.7	3.2	2.5	6	30.3	14	21.6	28	16.1
12	349	BENIGN PROSTATIC HYPERTROPHY W/O CC	35	2.6	2.1	0.5	0	0.0	0	0.0	0	0.0
12	350	INFLAMMATION OF THE MALE REPRODUCTIVE SYSTEM	159	5.7	3.6	2.1	4	42.0	7	30.7	21	17.4
12	352	OTHER MALE REPRODUCTIVE SYSTEM DIAGNOSES	25	5.0	2.7	2.3	0	0.0	3	14.3	4	12.8
13	353	PELVIC EVISCERATION, RADICAL HYSTERECTOMY & RADICAL VULVECTOMY	79	6.8	5.6	1.2	4	37.5	6	30.8	10	23.8
13	354	UTERINE,ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W CC	311	6.1	4.8	1.3	9	31.0	15	25.1	41	16.6
13	355	UTERINE,ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/O CC	183	3.4	3.2	0.2	0	0.0	0	0.0	1	11.0
13	356	FEMALE REPRODUCTIVE SYSTEM RECONSTRUCTIVE PROCEDURES	421	2.4	2.3	0.1	0	0.0	2	14.0	9	9.8
13	357	UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY	167	9.1	7.3	1.8	15	27.9	19	26.2	32	21.9
13	358	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W CC	586	4.7	3.7	1.0	11	25.5	22	20.9	57	14.5
13	359	UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W/O CC	630	2.9	2.8	0.1	0	0.0	0	0.0	5	9.2
13	360	VAGINA, CERVIX & VULVA PROCEDURES	262	3.5	2.6	0.9	4	36.5	12	22.2	24	16.0
13	361	LAPAROSCOPY & INCISIONAL TUBAL INTERRUPTION	10	5.7	2.3	3.4	1	23.0	1	23.0	2	16.5
13	363	D&C, CONIZATION & RADIO-IMPLANT, FOR MALIGNANCY	144	4.6	2.5	2.1	8	26.6	13	22.1	27	15.6
13	364	D&C, CONIZATION EXCEPT FOR MALIGNANCY	93	4.2	2.6	1.6	1	58.0	4	25.0	12	14.4
13	365	OTHER FEMALE REPRODUCTIVE SYSTEM O.R. PROCEDURES	59	9.1	4.6	4.5	11	26.5	12	25.9	20	20.1
13	366	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W CC	177	9.8	4.8	5.0	19	32.1	36	24.7	67	18.6
13	367	MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/O CC	15	1.7	2.2	(0.5)	0	0.0	0	0.0	0	0.0
13	368	INFECTIONS, FEMALE REPRODUCTIVE SYSTEM	115	8.0	5.0	3.0	6	31.5	16	22.1	30	17.3
13	369	MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS	120	4.9	2.3	2.6	3	20.7	8	17.0	25	11.7
14	370	CESAREAN SECTION W CC	35	5.0	4.3	0.7	0	0.0	0	0.0	4	10.5
14	371	CESAREAN SECTION W/O CC	37	4.2	3.2	1.0	1	24.0	1	24.0	1	24.0
14	372	VAGINAL DELIVERY W COMPLICATING DIAGNOSES	14	3.5	2.4	1.1	0	0.0	1	14.0	1	14.0
14	373	VAGINAL DELIVERY W/O COMPLICATING DIAGNOSES	121	2.1	1.8	0.3	0	0.0	0	0.0	0	0.0
14	374	VAGINAL DELIVERY W STERILIZATION &/OR D&C	15	2.6	2.2	0.4	0	0.0	0	0.0	0	0.0
14	376	POSTPARTUM & POST ABORTION DIAGNOSES W/O O.R. PROCEDURE	10	5.2	2.3	2.9	1	19.0	1	19.0	2	14.0
14	377	POSTPARTUM & POST ABORTION DIAGNOSES W O.R. PROCEDURE	1	1.0	3.4	(2.4)	0	0.0	0	0.0	0	0.0
14	378	ECTOPIC PREGNANCY	12	2.4	2.2	0.2	0	0.0	0	0.0	0	0.0
14	379	THREATENED ABORTION	19	1.7	2.2	(0.5)	0	0.0	0	0.0	0	0.0
14	380	ABORTION W/O D&C	4	2.3	1.7	0.6	0	0.0	0	0.0	0	0.0
14	381	ABORTION W D&C, ASPIRATION CURETTAGE OR HYSTEROTOMY	22	1.6	1.6	(0.0)	0	0.0	0	0.0	1	7.0

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							Cases	ALOS	Cases	ALOS	Cases	ALOS
14	382	FALSE LABOR	2	1.0	1.1	(0.1)	0	0.0	0	0.0	0	0.0
14	383	OTHER ANTEPARTUM DIAGNOSES W MEDICAL COMPLICATIONS	59	4.9	2.7	2.2	2	26.0	6	18.3	12	14.0
14	384	OTHER ANTEPARTUM DIAGNOSES W/O MEDICAL COMPLICATIONS	5	2.0	1.8	0.2	0	0.0	0	0.0	0	0.0
15	385	NEONATES, DIED OR TRANSFERRED TO ANOTHER ACUTE CARE FACILITY	1	8.0	1.8	6.2	0	0.0	0	0.0	1	8.0
15	387	PREMATURITY W MAJOR PROBLEMS	1	4.0	13.3	(9.3)	0	0.0	0	0.0	0	0.0
15	388	PREMATURITY W/O MAJOR PROBLEMS	3	3.7	8.6	(4.9)	0	0.0	0	0.0	0	0.0
15	389	FULL TERM NEONATE W MAJOR PROBLEMS	2	19.5	7.6	11.9	2	30.5	2	30.5	2	30.5
15	390	NEONATE W OTHER SIGNIFICANT PROBLEMS	7	4.9	4.2	0.7	0	0.0	0	0.0	1	12.0
15	391	NORMAL NEWBORN	34	2.3	3.1	(0.8)	0	0.0	0	0.0	0	0.0
16	392	SPLENECTOMY AGE >17	55	14.3	7.9	6.4	12	29.9	17	27.3	23	24.5
16	394	OTHER O.R. PROCEDURES OF THE BLOOD AND BLOOD FORMING ORGANS	81	12.5	4.1	8.4	14	43.6	19	36.7	29	28.2
16	395	RED BLOOD CELL DISORDERS AGE >17	3,417	6.0	3.4	2.6	138	30.1	288	22.5	663	15.8
16	397	COAGULATION DISORDERS	560	6.6	4.0	2.6	32	25.6	60	21.2	121	16.5
16	398	RETICULOENDOTHELIAL & IMMUNITY DISORDERS W CC	457	6.9	4.8	2.1	17	27.3	44	20.6	96	15.8
16	399	RETICULOENDOTHELIAL & IMMUNITY DISORDERS W/O CC	59	6.0	3.0	3.0	5	23.0	5	23.0	13	16.0
17	400	LYMPHOMA & LEUKEMIA W MAJOR O.R. PROCEDURE	204	12.2	6.1	6.1	33	37.4	51	30.7	75	25.3
17	401	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER O.R. PROC W CC	233	15.6	7.7	7.9	46	39.3	66	33.8	102	27.5
17	402	LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER O.R. PROC W/O CC	64	3.7	2.7	1.0	0	0.0	2	16.0	8	10.5
17	403	LYMPHOMA & NON-ACUTE LEUKEMIA W CC	1,319	10.0	5.8	4.2	162	31.8	262	26.4	439	20.9
17	404	LYMPHOMA & NON-ACUTE LEUKEMIA W/O CC	176	4.8	3.2	1.6	5	28.0	8	23.5	26	14.2
17	406	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R.PROC W CC	67	12.4	6.9	5.5	7	32.9	19	24.6	29	21.2
17	407	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W MAJ O.R.PROC W/O CC	18	3.6	3.5	0.1	0	0.0	1	18.0	1	18.0
17	408	MYELOPROLIF DISORD OR POORLY DIFF NEOPL W OTHER O.R.PROC	83	9.0	4.6	4.4	9	35.3	16	27.0	25	21.6
17	409	RADIOTHERAPY	157	6.6	4.3	2.3	7	34.4	10	29.0	23	19.4
17	410	CHEMOTHERAPY W/O ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS	2,444	3.3	2.7	0.6	27	23.0	44	20.0	114	13.6
17	411	HISTORY OF MALIGNANCY W/O ENDOSCOPY	1	1.0	2.2	(1.2)	0	0.0	0	0.0	0	0.0
17	412	HISTORY OF MALIGNANCY W ENDOSCOPY	5	2.0	1.9	0.1	0	0.0	0	0.0	1	8.0
17	413	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W CC	209	9.7	5.4	4.3	21	29.7	40	24.0	72	19.2
17	414	OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W/O CC	22	8.4	3.1	5.3	3	33.0	3	33.0	6	21.8
18	415	O.R. PROCEDURE FOR INFECTIOUS & PARASITIC DISEASES	1,796	19.3	10.5	8.8	410	43.7	596	37.2	863	31.2
18	416	SEPTICEMIA AGE >17	8,693	10.1	5.7	4.4	824	31.8	1486	25.5	2945	19.2
18	417	SEPTICEMIA AGE 0-17	4	12.0	4.5	7.5	1	19.0	1	19.0	3	14.3
18	418	POSTOPERATIVE & POST-TRAUMATIC INFECTIONS	631	7.5	4.9	2.6	28	26.2	70	20.4	167	15.3
18	419	FEVER OF UNKNOWN ORIGIN AGE >17 W CC	416	5.8	4.0	1.8	15	25.1	23	21.8	68	14.8
18	420	FEVER OF UNKNOWN ORIGIN AGE >17 W/O CC	74	4.5	3.2	1.3	0	0.0	1	15.0	4	12.0
18	421	VIRAL ILLNESS AGE >17	375	4.9	3.1	1.8	8	25.0	17	19.9	50	13.5
18	422	VIRAL ILLNESS & FEVER OF UNKNOWN ORIGIN AGE 0-17	4	2.8	2.6	0.2	0	0.0	0	0.0	0	0.0
18	423	OTHER INFECTIOUS & PARASITIC DISEASES DIAGNOSES	232	12.3	5.8	6.5	34	33.9	57	27.5	100	21.2
19	424	O.R. PROCEDURE W PRINCIPAL DIAGNOSES OF MENTAL ILLNESS	147	19.7	9.0	10.7	42	37.6	61	32.8	85	28.3
19	425	ACUTE ADJUST REACT & DISTURBANCES OF PSYCHOSOCIAL DYSFUNCTION	437	6.0	3.0	3.0	16	26.6	35	20.7	93	14.5
19	426	DEPRESSIVE NEUROSES	432	7.6	3.5	4.1	32	25.7	63	20.7	132	15.5
19	427	NEUROSES EXCEPT DEPRESSIVE	125	7.9	3.4	4.5	9	29.0	21	21.6	42	16.1
19	428	DISORDERS OF PERSONALITY & IMPULSE CONTROL	113	12.3	4.5	7.8	22	32.9	27	29.8	46	22.4
19	429	ORGANIC DISTURBANCES & MENTAL RETARDATION	1,304	12.0	5.2	6.8	171	38.7	274	30.9	502	22.7
19	430	PSYCHOSES	8,433	11.2	6.2	5.0	825	32.0	1586	25.7	3118	19.8
19	431	CHILDHOOD MENTAL DISORDERS	47	12.2	4.6	7.6	5	54.2	7	43.9	14	28.7
19	432	OTHER MENTAL DISORDER DIAGNOSES	25	15.7	3.4	12.3	7	39.0	8	36.0	12	28.1
20	433	ALCOHOL/DRUG ABUSE OR DEPENDENCE, LEFT AMA	155	2.3	2.3	0.0	1	22.0	1	22.0	6	12.0
20	434	ALC/DRUG ABUSE OR DEPEND, DETOX OR OTH SYMPT TREAT W CC	631	6.6	3.9	2.7	32	27.7	72	20.9	146	15.6
20	435	ALC/DRUG ABUSE OR DEPEND, DETOX OR OTH SYMPT TREAT W/O CC	511	4.4	3.5	0.9	8	24.6	15	20.2	50	13.5
20	436	ALC/DRUG DEPENDENCE W REHABILITATION THERAPY	6	13.0	11.4	1.6	0	0.0	0	0.0	2	21.0

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							Cases	ALOS	Cases	ALOS	Cases	ALOS
20	437	ALC/DRUG DEPENDENCE, COMBINED REHAB & DETOX THERAPY	206	6.6	7.7	(1.1)	7	26.1	18	22.9	38	18.7
21	439	SKIN GRAFTS FOR INJURIES	24	10.7	5.0	5.7	4	32.3	5	29.2	7	24.6
21	440	WOUND DEBRIDEMENTS FOR INJURIES	170	12.5	5.7	6.8	26	39.8	46	29.9	68	24.2
21	441	HAND PROCEDURES FOR INJURIES	10	2.7	2.3	0.4	0	0.0	0	0.0	1	9.0
21	442	OTHER O.R. PROCEDURES FOR INJURIES W CC	435	10.6	5.2	5.4	65	35.4	90	30.5	139	24.2
21	443	OTHER O.R. PROCEDURES FOR INJURIES W/O CC	87	3.7	2.5	1.2	1	63.0	2	38.0	7	17.6
21	444	TRAUMATIC INJURY AGE >17 W CC	154	6.2	3.5	2.7	9	23.6	13	21.3	32	14.9
21	445	TRAUMATIC INJURY AGE >17 W/O CC	62	3.0	2.6	0.4	0	0.0	0	0.0	3	9.0
21	447	ALLERGIC REACTIONS AGE >17	158	2.8	1.9	0.9	0	0.0	2	14.5	18	8.6
21	449	POISONING & TOXIC EFFECTS OF DRUGS AGE >17 W CC	698	5.4	2.7	2.7	27	27.5	64	20.0	154	13.9
21	450	POISONING & TOXIC EFFECTS OF DRUGS AGE >17 W/O CC	180	3.3	1.6	1.7	1	41.0	6	17.8	22	10.8
21	451	POISONING & TOXIC EFFECTS OF DRUGS AGE 0-17	1	21.0	2.1	18.9	1	21.0	1	21.0	1	21.0
21	452	COMPLICATIONS OF TREATMENT W CC	800	5.8	3.6	2.2	28	33.7	54	25.0	151	15.8
21	453	COMPLICATIONS OF TREATMENT W/O CC	166	2.8	2.2	0.6	1	50.0	4	23.5	11	13.7
21	454	OTHER INJURY, POISONING & TOXIC EFFECT DIAG W CC	126	6.6	3.2	3.4	5	29.8	14	20.7	33	14.7
21	455	OTHER INJURY, POISONING & TOXIC EFFECT DIAG W/O CC	27	2.6	1.9	0.7	0	0.0	1	14.0	2	10.5
23	461	O.R. PROC W DIAGNOSES OF OTHER CONTACT W HEALTH SERVICES	275	4.7	2.4	2.3	25	27.1	33	24.1	46	20.1
23	462	REHABILITATION	1,295	13.6	10.1	3.5	87	36.2	185	28.9	379	23.1
23	463	SIGNS & SYMPTOMS W CC	556	7.2	3.3	3.9	34	31.6	62	24.3	129	17.2
23	464	SIGNS & SYMPTOMS W/O CC	134	4.5	2.6	1.9	5	24.4	5	24.4	19	13.4
23	465	AFTERCARE W HISTORY OF MALIGNANCY AS SECONDARY DIAGNOSIS	11	3.2	1.9	1.3	0	0.0	0	0.0	3	8.3
23	466	AFTERCARE W/O HISTORY OF MALIGNANCY AS SECONDARY DIAGNOSIS	75	3.4	2.3	1.1	1	63.0	1	63.0	8	15.1
23	467	OTHER FACTORS INFLUENCING HEALTH STATUS	99	5.5	2.3	3.2	4	22.0	11	16.9	26	12.7
nultipl	468	EXTENSIVE O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS	2,547	18.3	9.5	8.8	583	39.2	880	33.3	1333	27.8
8	471	BILATERAL OR MULTIPLE MAJOR JOINT PROCS OF LOWER EXTREMITY	263	7.0	5.3	1.7	7	40.1	14	28.9	37	18.9
17	473	ACUTE LEUKEMIA W/O MAJOR O.R. PROCEDURE AGE >17	248	14.3	7.6	6.7	59	38.4	74	34.6	99	29.6
4	475	RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT	3,676	14.8	8.1	6.7	570	41.2	920	33.5	1528	26.4
nultipl	476	PROSTATIC O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS	296	17.2	8.9	8.3	47	43.1	90	32.8	149	26.5
nultipl	477	NON-EXTENSIVE O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS	1,228	12.7	5.3	7.4	193	37.0	320	29.3	559	22.2
5	478	OTHER VASCULAR PROCEDURES W CC	4,000	9.9	5.1	4.8	452	32.5	778	26.3	1346	20.6
5	479	OTHER VASCULAR PROCEDURES W/O CC	622	4.1	3.0	1.1	5	28.8	17	19.1	56	13.1
nultipl	480	LIVER TRANSPLANT	13	20.2	19.3	0.9	3	53.0	3	53.0	3	53.0
nultipl	481	BONE MARROW TRANSPLANT	13	19.2	24.9	(5.7)	0	0.0	0	0.0	0	0.0
nultipl	482	TRACHEOSTOMY FOR FACE,MOUTH & NECK DIAGNOSES	148	14.5	10.0	4.5	16	45.6	30	34.9	45	29.3
nultipl	483	TRACHEOSTOMY EXCEPT FOR FACE,MOUTH & NECK DIAGNOSES	1,625	51.0	34.0	17.0	666	82.1	779	76.9	917	71.5
24	484	CRANIOTOMY FOR MULTIPLE SIGNIFICANT TRAUMA	5	10.2	9.5	0.7	0	0.0	1	22.0	1	22.0
24	485	LIMB REATTACHMENT, HIP AND FEMUR PROC FOR MULTIPLE SIGNIFICANT TR	75	10.9	7.7	3.2	5	26.4	12	22.9	19	20.4
24	486	OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA	33	14.5	8.4	6.1	6	43.5	7	40.0	10	32.6
24	487	OTHER MULTIPLE SIGNIFICANT TRAUMA	56	10.0	5.5	4.5	6	30.7	11	24.1	20	18.8
25	488	HIV W EXTENSIVE O.R. PROCEDURE	48	24.5	11.9	12.6	19	44.7	21	42.8	26	38.1
25	489	HIV W MAJOR RELATED CONDITION	717	11.1	6.2	4.9	89	35.7	140	29.5	251	22.5
25	490	HIV W OR W/O OTHER RELATED CONDITION	256	8.2	3.9	4.3	25	29.2	35	25.5	67	18.8
8	491	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF UPPER EXTREMITY	186	4.7	3.1	1.6	5	26.6	9	21.1	21	15.5
17	492	CHEMOTHERAPY W ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS	49	14.6	11.4	3.2	12	32.1	19	29.2	21	28.3
7	493	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W CC	1,677	6.8	4.2	2.6	71	27.0	140	22.0	379	15.4
7	494	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W/O CC	1,096	2.2	1.9	0.3	2	19.5	11	15.3	67	9.1
8	496	COMBINED ANTERIOR/POSTERIOR SPINAL FUSION	14	21.6	8.6	13.0	6	42.3	6	42.3	6	42.3
8	497	SPINAL FUSION W CC	252	8.5	5.0	3.5	19	31.2	36	24.9	62	19.8
8	498	SPINAL FUSION W/O CC	180	3.5	2.9	0.6	1	19.0	1	19.0	5	12.4
8	499	BACK & NECK PROCS EXCEPT SPINAL FUSION W CC	537	7.1	3.8	3.3	34	32.4	53	26.8	112	18.9
8	500	BACK & NECK PROCS EXCEPT SPINAL FUSION W/O CC	561	3.1	2.4	0.7	3	26.7	8	19.1	30	12.2

Medicare Cases by DRG

MDC	DRG	DRG Description	Cases	ALOS	FY 1999 Geometric Mean LOS	Variance to Geometric Mean	15 Days over Geometric Mean LOS		10 Days over Geometric Mean LOS		5 Days over Geometric Mean LOS	
							Cases	ALOS	Cases	ALOS	Cases	ALOS
8	501	KNEE PROC W PDX OF INFECTION W CC	45	16.1	8.4	7.7	9	32.9	15	28.3	21	24.9
8	502	KNEE PROC W PDX OF INFECTION W/O CC	12	8.7	5.4	3.3	0	0.0	1	16.0	5	13.2
8	503	KNEE PROCEDURES W/O PDX OF INFECTION	168	4.7	3.2	1.5	2	52.0	3	39.7	22	14.6
22	506	FULL THICK BURN W SK GRAFT OR INHAL INJ W CC OR SIG TR	4	14.5	12.2	2.3	3	19.3	3	19.3	3	19.3
22	507	FULL THICK BURN W SK GRAFT OR INHAL INJ W/O CC OR SIG TR	2	17.0	6.6	10.4	1	29.0	1	29.0	2	17.0
22	508	FULL THICK BURN W/O SK GRAFT OR INHAL INJ W CC OR SIG TR	7	13.3	5.3	8.0	2	21.0	6	14.7	7	13.3
22	509	FULL THICK BURN W/O SK GRAFT OR INHAL INJ W/O CC OR SIG TR	3	4.7	3.4	1.3	0	0.0	0	0.0	1	9.0
22	510	NON-EXTENSIVE BURNS W CC OR SIGNIFICANT TRAUMA	2	5.0	4.9	0.1	0	0.0	0	0.0	1	8.0
22	511	NON-EXTENSIVE BURNS W/O CC OR SIGNIFICANT TRAUMA	1	4.0	3.5	0.5	0	0.0	0	0.0	0	0.0
	Overall		356,245	7.8			19,960	34.6	37,038	26.8	80,320	19.0

New Jersey Hospital Association and NJ Dept of Health and Senior Sevices
1998 UB Data for Post-Acute Care Work Group
Showing ALOS with Hospitals sorted by maintained bed occupancy rates

Hosp ID	Licensed Bed Occupancy Rate	Maintained Bed Occupancy Rate	Case Mix Index	MCR ALOS	CMI adjusted ALOS	Total Medicare discharges
H01	93.0%	97.2%	1.8148	6.9	3.8	11,239
H02	90.0%	93.3%	2.0960	8.1	3.9	6,553
H03	89.7%	89.3%	1.2627	10.0	7.9	6,630
H04	84.6%	83.2%	1.6750	7.1	4.2	9,575
H05	81.4%	70.6%	0.9964	14.1	14.2	1,634
H06	72.2%	83.5%	1.4625	8.5	5.8	7,593
H07	71.8%	78.1%	2.1003	7.0	3.3	9,311
H08	71.4%	72.6%	1.2749	6.3	5.0	5,339
H09	71.1%	83.3%	1.4248	7.0	4.9	5,130
H10	70.9%	70.9%	1.2474	5.8	4.6	3,134
H11	70.9%	70.9%	1.2643	10.3	8.1	1,163
H12	70.8%	71.9%	1.9046	8.3	4.4	5,985
H13	70.6%	82.0%	1.4393	8.6	6.0	6,681
H14	69.3%	75.2%	1.7802	8.8	5.0	2,709
H15	68.6%	68.6%	1.7287	7.2	4.2	4,859
H16	66.7%	77.6%	1.2576	7.6	6.0	4,965
H17	66.2%	83.5%	1.3032	7.7	5.9	4,093
H18	64.9%	68.8%	1.3178	8.5	6.5	3,173
H19	64.8%	64.8%	1.2688	7.0	5.5	3,027
H20	64.7%	64.8%	1.3031	8.7	6.7	3,545
H21	64.2%	76.0%	1.3315	8.2	6.2	6,051
H22	63.1%	77.3%	1.2318	12.3	10.0	3,275
H23	61.8%	72.5%	1.1931	9.3	7.8	2,811
H24	61.6%	84.8%	1.2500	9.6	7.7	3,161
H25	61.5%	80.5%	1.8348	8.4	4.6	5,524
H26	61.4%	66.6%	1.3430	6.6	4.9	13,110
H27	60.9%	60.9%	1.6909	7.5	4.4	7,845
H28	60.8%	60.8%	1.2806	7.0	5.4	3,959
H29	60.4%	74.4%	1.2720	6.2	4.9	4,832
H30	58.9%	58.9%	1.3279	7.5	5.7	2,615
H31	58.5%	58.5%	1.3185	8.6	6.6	4,548
H32	57.3%	57.3%	1.3911	10.4	7.5	2,627
H33	57.3%	63.7%	1.2797	9.1	7.1	3,679
H34	57.2%	57.2%	1.2385	6.6	5.3	2,973
H35	56.5%	70.6%	1.2889	6.8	5.3	5,710
H36	55.6%	55.6%	1.2579	6.6	5.3	5,182
H37	54.9%	76.3%	1.2907	6.7	5.2	5,545
H38	54.2%	54.2%	1.3335	7.4	5.5	3,812
H39	53.8%	57.8%	1.1993	9.3	7.8	4,947
H40	53.3%	43.6%	2.9380	7.8	2.7	2,021
H41	52.6%	71.4%	1.3931	7.9	5.6	3,392
H42	52.3%	61.7%	1.3605	8.0	5.9	3,298
H43	51.4%	81.7%	1.2987	7.9	6.1	3,384

H44	51.2%	68.7%	1.3194	7.5	5.7	4,910
H45	50.5%	70.5%	1.3341	6.3	4.7	4,357
H46	50.4%	77.9%	1.2890	10.4	8.1	4,590
H47	50.3%	50.3%	1.2892	7.1	5.5	1,825
H48	50.2%	50.2%	1.2616	9.9	7.9	4,240
H49	49.7%	77.5%	1.3145	7.8	5.9	6,443
H50	49.2%	66.2%	1.2115	7.6	6.3	4,134
H51	48.7%	66.3%	2.0903	8.7	4.1	3,857
H52	48.0%	48.2%	1.2322	8.3	6.7	5,678
H53	47.9%	57.9%	1.2884	7.2	5.6	6,861
H54	47.5%	64.9%	1.2236	6.1	5.0	8,238
H55	46.3%	67.3%	1.2111	8.3	6.8	3,303
H56	45.9%	46.7%	1.2717	7.5	5.9	3,579
H57	45.4%	62.6%	1.1760	7.4	6.3	3,118
H58	45.3%	45.3%	1.3870	6.4	4.6	4,190
H59	45.0%	55.2%	1.6826	6.6	3.9	4,232
H60	44.8%	73.8%	1.1947	11.5	9.6	2,485
H61	44.1%	55.0%	1.2650	6.4	5.1	2,433
H62	43.6%	37.9%	1.3014	9.4	7.2	2,258
H63	43.4%	72.6%	1.3696	7.4	5.4	4,623
H64	43.3%	67.0%	1.2077	8.2	6.8	1,808
H65	42.7%	50.9%	1.1873	9.3	7.9	2,345
H66	42.7%	42.7%	1.2620	8.0	6.3	1,372
H67	42.2%	63.4%	1.3562	8.6	6.3	3,626
H68	42.1%	58.3%	1.2132	8.8	7.2	2,740
H69	41.5%	58.1%	1.2987	9.6	7.4	1,954
H70	41.5%	64.8%	1.1580	11.2	9.7	1,486
H71	41.0%	56.7%	1.6322	6.9	4.2	3,226
H72	40.7%	65.9%	1.3911	7.1	5.1	6,186
H73	39.4%	81.7%	1.3777	11.0	8.0	2,846
H74	39.0%	78.7%	1.3670	7.3	5.3	3,924
H75	37.9%	37.9%	1.4634	7.4	5.1	6,052
H76	36.7%	51.6%	1.1615	9.1	7.9	1,941
H77	34.5%	64.7%	1.3537	10.4	7.7	2,031
H78	34.1%	61.2%	1.3221	7.4	5.6	1,987
H79	31.9%	75.0%	1.2888	7.4	5.8	3,105
H80	23.5%	100.0%	1.3285	6.8	5.1	10,409
H81	21.2%	21.2%	1.1624	8.9	7.7	1,729
H82	18.6%	48.2%	1.1924	6.8	5.7	900
H83	9.9%	9.9%	1.1477	7.3	6.4	664