Should Medicare Compensate Hospitals for Administratively Necessary Days?

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CONCERN HAS BEEN INCREASING THAT THE MEDICARE prospective payment system (PPS) may be causing financial hardship for hospitals that have difficulty discharging patients because of limited access to the nursing home market. In response to this concern, Congress passed section 9305(E) of the 1986 Omnibus Budget Reconciliation Act, requiring the Department of Health and Human Services to study the issue. The specific congressional mandate was to determine whether separate payments should be made to hospitals for administratively necessary days (ANDs), separate from the diagnosis-related group (DRG) and outlier payments. ANDs are days when a patient remains in the hospital because of inability to place the patient in a nursing home.

This article reports on several studies designed to respond to the mandate of section 9305(E). The first part explains the issue. The second part describes the approach taken. The third part presents the questions the study has addressed and the answers developed. The report ends with a discussion of policy alternatives.

Medicare PPS contains strong incentives to reduce hospital costs and, more specifically, to reduce the length of a patient's hospital stay. This is because the hospital receives a flat payment for a patient's care, irrespective of how many days he or she is in the hospital. The

payment is essentially based on the average cost of care for a given DRG, adjusted to take account of geographic differences in wages and differences in certain hospital characteristics (such as whether it is a teaching hospital or serves a disproportionate share of the poor). Since the payment does not vary with length of stay, hospitals tend to gain financially when patients are discharged earlier than the average for their DRG; conversely hospitals tend to lose when patients are discharged later than the average for their DRG.

A major way hospitals can reduce length of stay is by discharging patients to be cared for in nursing homes when they no longer need acute care, but still have care needs that are too great to be met by informal care at home. When there is no nursing home bed available, however, the hospital may have no choice but to keep the patient for additional days. Prior to PPS, hospitals were reimbursed for these days. Under PPS this is no longer the case. PPS does allow for additional payments for extremely costly patients (called outliers), either because they stay an exceptionally long time or because they require exceptionally intensive care during their stay. But a patient's stay or cost has to be almost two standard deviations away from the mean of either the length of stay or cost distribution for the relevant DRG before the outlier payment applies.

If nursing home markets were essentially the same in all areas of the country, all hospitals would be in a similar situation with respect to ANDs. The nursing home bed supply in different areas varies considerably, however. In 1985, for example, the number of nursing home beds certified to care for Medicaid or Medicare patients per 1,000 of the elderly population ranged from a high of 91 in Minnesota to a low of under 23 in Florida (Kenney and Holahan 1988). The percentage of beds certified for Medicare also varied widely, from a high of 88 percent in Nevada to a low of under 1 percent in Oklahoma; similarly, variations exist in the percentage of beds certified to provide skilled nursing care.

The obvious disparities in nursing home bed availability indicate that hospitals do, indeed, face different nursing home markets in different areas of the country. If these differences are systematically associated with hospital differences in ANDs, there is at least presumptive evidence that there may be an AND equity issue.

Table 1 records the existence of a strong relation between discharge delays and nursing home placement. It shows state-specific data on

three measures of discharge delay, and the percentage of discharges to skilled nursing facilities (SNFs) and intermediate care facilities (ICFs) for 16 DRGs that commonly lead to postacute care. There is substantial variation across states. There also appears to be a systematic inverse relation between percentage of discharges to SNFs and ICFs, on the one hand, and discharge delays, on the other. Simple comparisons of the experience of Minnesota, Wisconsin, Nebraska, South Dakota, and Iowa (in italic) with that of New York, Massachusetts, Virginia and the District of Columbia (in bold) highlight the pattern. The states in italics have particularly high proportions of patients discharged to SNFs or ICFs, combined with lower than average discharge delays on all three measures; the opposite is true for the states in bold.

The studies summarized in this report confirm that there is indeed a problem of hospital discharge delays under PPS. Nursing home bed shortages in some areas are one reason. Others include low proportions of area beds certified to provide SNF care and the stringency of Medicaid nursing home reimbursement in some states. The effect of nursing home market access on discharge delays is not large on average, but it can constitute a substantial burden for some hospitals.

Addressing the issue is potentially difficult, with several dimensions of complexity. First, it should be remembered that PPS rates are based on all hospital charges (which include ANDs). In a sense, therefore, the system is already paying for ANDs. Because the current PPS system does not account for nursing home market access, however, those hospitals with easy access can discharge patients more quickly and are thus "winners"; those with more limited access and thus more ANDs are "losers." Thus, any solution should arguably be budget neutral but would involve taking from the gainers and compensating the losers. Whether such a redistribution is appropriate depends on the extent of the problem. If these costs are sufficiently large, some response would be warranted because of the effect on the financial status of adversely affected hospitals. Ultimately, the quality of patient care offered Medicare beneficiaries in these hospitals could be threatened.

Second, even if there is an AND equity problem, it is not obvious that a separate AND payment is the solution. A major intent of PPS was to break the link between a hospital's own current costs, which it can control at least to a degree, and its reimbursement. Separate

TABLE 1

Selected Measures of Hospital and Postacute Care Utilization, by State Selected (16) DRGs

SSA state code from provider ID number	Average length of stay	Measures of discharge delay		% of hospital discharges to SNFs or ICFs
		% of hospital discharges with length of stay > mean	% of hospital discharges with length of stay > outlier threshold	
Alabama	7.1	26.6%	0.4%	6.5 %
Alaska	6.0	18.8	0.8	7.0
Arizona	7.0	25.4	0.7	5.2
Arkansas	6.3	21.3	0.2	14.2
California	7.2	26.0	1.0	11.7
Colorado	6.0	19.9	0.2	14.3
Connecticut	9.0	38.5	1.2	8.2
Delaware	9.2	38.9	1.2	8.6
District of Columbia	12.3	39.2	5.1	2.8
Florida	7.7	30.6	0.6	7.6
Georgia	6.9	23.1	1.1	10.6
Hawaii	6.3	18.5	1.0	7.7
Idaho	5.2	15.4	0.1	9.2
Illinois	8.5	34.1	1.1	15.1
Indiana	8.5	30.9	1.0	11.5
Iowa	6.3	22.3	0.2	21.6
Kansas	8.6	22.8	1.2	17.5
Kentucky	7.0	26.1	0.3	10.1
Louisiana	7.0	24.6	0.7	13.7
Maine	7.6	27.8	1.1	10.4
Maryland	10.1	40.5	2.3	4.4

Massachusetts	11.3	41.3	3.8	4.7
Michigan	7.9	30.3	0.8	8.0
Minnesota	6.4	21.8	0.4	*19.5*
Mississippi	6.9	24.9	0.4	7.6
Missouri	14.1	29.7	1.3	14.6
Montana	5.3	15.2	0.2	15.4
Nebraska	7.1	23.9	0.6	*20.7*
Nevada	6.2	20.7	0.5	5.61
New Hampshire	7.8	30.0	1.1	12.8
New Jersey	13.7	48.2	4.7	6.4
New Mexico	6.7	22.3	0.6	9.7
New York	**16.6**	**44.4**	**5.8**	**2.9**
North Carolina	9.0	32.7	1.8	6.8
North Dakota	5.9	18.9	0.2	18.6
Ohio	8.0	33.1	0.6	11.6
Oklahoma	6.7	24.4	0.3	15.5
Oregon	5.6	18.8	0.2	9.6
Pennsylvania	8.4	35.3	0.8	8.0
Rhode Island	9.9	41.1	1.7	14.3
South Carolina	8.4	31.0	1.4	6.5
South Dakota	5.7	17.6	0.1	*18.9*
Tennessee	7.4	28.0	0.5	10.4
Texas	6.7	24.4	0.4	1.6
Utah	6.2	18.4	0.2	9.1
Vermont	7.9	29.5	1.2	9.5
Virginia	**10.0**	**35.5**	**2.3**	**9.3**
Washington	6.1	19.8	0.4	12.4
West Virginia	6.9	24.7	0.3	4.6
Wisconsin	7.3	28.2	0.4	*16.8*
Wyoming	5.5	17.4	0.2	10.1

payments for ANDs would partially reestablish that link. An alternative might be to include an adjustment for nursing home bed supply in the PPS payment formula. But this may not be the solution, because of the other determinants of ANDs in addition to nursing home bed supply. Any adjustment should include all major determinants, possibly increasing the complexity of the formula to a degree that would make it administratively unworkable. Another approach would be to address directly the problem of access to the nursing home market through changes in the way such care is paid for. But this could be very costly. As the article demonstrates, the problem is complex and there are no easy solutions.

Finally, two important changes in Medicare policy toward skilled nursing benefits have taken place since the period analyzed in this study. The first change occurred in April of 1988 when Medicare considerably relaxed its coverage requirements for skilled nursing home care. This in itself has reportedly increased the number of Medicare-covered admissions to nursing homes. The second change is contained in several provisions of the Medicare Catastrophic Coverage Act of 1988 which substantially reduced coinsurance payments, eliminated the prior three-day hospital-stay requirement, and extended Medicare coverage from 100 to 150 days. These changes should increase the demand for care and may produce a Medicare nursing home population which is quite different in terms of care needs from those previously covered by Medicare. It is not clear, however, that these changes will increase nursing homes' willingness to admit and appropriately care for Medicare patients. The problems we point out in this article are directly relevant to considering how nursing homes might respond to these Medicare policy changes. That is, the evidence that access to nursing homes depends on the supply of beds and reimbursement policy suggests that there are serious limitations on the willingness of nursing homes to serve Medicare patients; these may well remain even following the relaxation of coverage requirements and the passage of the Catastrophic Coverage Act.

Study Approach and Data

The initial difficulty in studying the problem of ANDs is lack of directly relevant data, since the current reimbursement system pro-

TABLE 2
Component Studies, with Data Sources

Analysis of discharge delays, using 1985 General Accounting Office discharge delay survey (Holahan and Dubay 1988).

Analysis of lengths of stay, percentage of cases with lengths of stay greater than national average but less than the outliers, and proportion of day outliers, using 1985 MEDPAR data (Kenney and Holahan 1988).

Analysis of effects on Medicare beneficiaries, Medicare beneficiaries with private insurance and dual eligibles, using data from the 1985 Center for Professional Hospital Activities professional activity study (Holahan 1988).

Analysis of hospital cost per admission, using Medicare 1985 PPS 2 file (Welch and Dubay 1988).

Analysis of nursing home Medicare admissions, using 1985 MMACS and MEDPAR data (Bishop and Dubay 1988).

Analysis of marginal cost of Medicare admissions, using 1985 Medicare cost report data (Dor 1988).

MEDPAR = Medicare provider analysis review
Medicare PPS 2 = Second year of PPS data
MMACS = Medicare-Medicaid automated certification system

vides no incentive for any hospitals to report them. Such data could be collected through a special survey of hospitals to collect information from medical records. The time and expense involved in this approach, however, effectively ruled it out for this study. Instead, we relied on a series of component studies, using several different measures of discharge delays as proxies for ANDs from a variety of data sources. Because access to the nursing home market is at the heart of any AND problem, two additional studies address nursing home participation in Medicare. Table 2 provides an overview of the studies that were conducted.

The first component study (Holahan and Dubay 1988) analyzes data obtained by the General Accounting Office (GAO). The GAO conducted a survey in 1985 of a representative sample of the nation's hospitals; 985 hospitals responded. The hospitals were asked about their difficulty in placing patients and whether this difficulty had increased since the introduction of PPS. The GAO provided us with the survey response data, which we merged with information about the survey hospitals—including nursing home bed supply, charac-

teristics of the nursing home market, Medicaid nursing home reimbursement policies in the area, Medicare nursing home reimbursement policies, and annual hospital survey data on the characteristics of each hospital (such as teaching status, ownership, and occupancy rates). The key question addressed using this data base is whether discharge delays as measured by the survey responses are systematically related to nursing home capacity or reimbursement policy.

The second study (Kenney and Holahan 1988) uses data from the Medicaid provider analysis review (MEDPAR) data files of the Health Care Financing Administration (HCFA). MEDPAR records data on 100 percent of all Medicare discharges contain patient-specific information on diagnosis (DRG), length of stay, and basic demographic characteristics. The three measures of discharge delay used in this study are average length of stay, percentage of stays greater than the national geometric mean but less than the outlier threshold, and percentage of stays exceeding the outlier threshold. To improve the accuracy of these measures as proxies for ANDs, we focus on 16 DRGs most likely to be followed by formal postacute care. The key question addressed in this study is whether discharge delays are related to the supply of nursing home beds and to policies that affect the incentives of nursing homes to admit Medicare hospital beneficiaries.

The third study (Holahan 1988) uses data from the Center for Professional Hospital Activities (CPHA) professional activity study, which allow us to compare Medicare hospital beneficiaries according to their secondary insurance coverage—specifically, Medicare/Medicaid beneficiaries, versus Medicare patients with secondary insurance, versus Medicare patients with no secondary insurance. The key question addressed in this study is whether some groups of Medicare patients are affected more adversely than others in tight nursing home markets or in markets where Medicaid and Medicare policies discourage the admission of heavier care patients.

The fourth study (Welch and Dubay 1988) uses the Medicare-cost report data from the second year of PPS, merged with the nursing home bed supply and reimbursement policy variables mentioned above, to examine the factors (including discharge delays) that affect hospital costs per admission. The model used in this study is the same model that has been used in determining the HCFA teaching and disproportionate share adjustments in the current PPS formula. Explanatory variables include a Medicare case-mix index, teaching

status, measures of metropolitan area size, the HCFA wage index, and disproportionate share of poor patients. The key question addressed—the ultimate question in a sense—is whether limited access to the nursing home market results in high cost per admission for the hospitals affected.

Each of these studies tests a common set of hypotheses in a multiple regression framework. The major explanatory variables are shown in table 3. The first variable is nursing home bed supply. The expectation is that discharge delays will be lower the higher the available bed supply. The second pair of variables—the percentage of beds certified to provide SNF care and the percentage certified for Medicare—are measures of the structure of the nursing home industry within each nursing home market. The expectation is that the higher the percentage of nursing home beds certified to provide SNF care or to provide care to Medicare patients, the more the nursing home market will be oriented toward sicker patients, the greater the access for Medicare patients, and the fewer the AND days.

The third variable is a measure of the stringency of Medicaid reimbursement policies. Information based on a 1980–1985 survey of Medicaid nursing home policies in the 50 states was used to classify the Medicaid reimbursement systems into four types (Laudicina 1987). The first is flat-rate arrangements under which the nursing homes are paid on the basis of a flat rate or set of class rates, with the rates being independent of any one facility's costs. The second system is facility-specific prospective payment with strong and weak efficiency incentives. Strong systems are defined as those where the rates, which are based on a nursing home's cost experience, are rebased no more frequently than every two years. The third system is prospective payments with weak incentives, that is, those that rebase yearly and have less stringent cost ceilings, etc. The distinction is based on the fact that the more frequent the rebasing, the more the reimbursement system approaches a cost-based system. The fourth system is cost-based or retrospective payment systems, the least stringent cost-containment system of all.

The expectation is that nursing homes will respond to Medicaid programs with strong cost-containment incentives by reducing case mix and adjusting staffing commensurately. This response, in turn, will make nursing homes less well equipped to care for heavy-care Medicare hospital beneficiaries. Therefore, we expect that discharge

TABLE 3
Study Hypotheses

Explanatory variables	Expected effect	Rationale
1. Nursing home beds per 65 + population	(−)	Greater supply, more access, fewer backup days; limited supply, tendency to serve patients with lower care needs, more backup days
2. Percentage SNF beds and percentage Medicare certified	(−)	More orientation to sicker patients, more access for Medicare patients, fewer backups
3. Medicaid prospective payment	(+)	Tight policy, tendency of nursing homes to adjust staffing and case mix, fewer Medicare admissions, more hospital backups
4. Medicare reimbursement		
AC < ceiling	(?)	Tendency for nursing home average costs in state to be below Medicare ceilings; BUT marginal cost of Medicare patients may be above Medicare rate
AC > ceiling	(?)	Tendency for nursing home average costs to be above Medicare ceilings; BUT marginal cost may be below Medicare ceiling
5. SNF Units/Swing beds	(−)	Tendency for hospitals with skilled nursing facilities and/or swing beds to have fewer backup days than other hospitals; effect will be stronger in tight nursing home markets
6. Waiver states	(+)	Weaker incentives to reduce lengths of stay in waiver states; thus should be more backup days; other policy variables likely to be less important

delays will be greatest in states with strong cost-containment arrangements.

The fourth variable is a measure of Medicare nursing home reimbursement policies, which are themselves likely to be important determinants of nursing homes' decisions to admit Medicare patients from hospitals. Medicare pays on the basis of average costs up to a ceiling. If nursing home costs are low relative to Medicare ceilings, it may be possible for nursing homes to admit hospitalized Medicare patients, incur costs of caring for these patients, and remain below Medicare ceilings. Hospital discharge delays should be shortest in this case. But if the marginal costs of these Medicare patients are above the average costs of caring for these patients, nursing homes should be less likely to admit Medicare patients and lengths of stay should be longer. If nursing home costs are above the Medicare ceiling, nursing homes will clearly lose. Only if the marginal costs of these Medicare patients are below both average facility costs and the ceiling on which payment is based can nursing homes be expected to admit Medicare hospital beneficiaries.

The fifth variable measures the hospitals' control over nursing home beds. Many hospitals have their own SNFs. The expectation is that these hospitals will be more likely than others to discharge patients to their own unit, allowing them to shorten the length of the hospital stay and bill Medicare on a per diem basis for postacute care. Similar incentives exist for hospitals with swing-bed units (beds that can be used for either acute or postacute care) and to a lesser extent, for hospitals that have regular arrangements with SNFs to admit their patients for postacute care. Hospitals with any of these arrangements can be expected to have shorter discharge delays, other things equal, than other hospitals.

The final variable is designed to measure the impact of the PPS system itself on discharge delays. Four states during the study period had waivers which exempted them from Medicare PPS—New York, New Jersey, Massachusetts, and Maryland. All four had their own rate-setting systems. These systems varied considerably in design and structure but each had clearly weaker incentives to reduce lengths of stay than the PPS system. It is not possible to isolate the effect attributable to waiver status from the effect of initial differences between the waiver and PPS states. But any *major* difference can certainly be interpreted as an indication that the PPS incentives them-

selves have had some effect on discharge delays, irrespective of any effect of nursing home bed supply.

The final two studies examine possible reasons why nursing homes might be unwilling to admit Medicare nursing home patients. Prior to the 1988 Catastrophic Coverage Act, the Medicare skilled nursing benefit was tightly restricted in both the types of patients covered and the types of nursing facilities that could provide covered care; as mentioned earlier, these restrictions are now somewhat more relaxed. At the time of this study, however, less than 2 percent of all nursing home care was funded by the SNF benefit (Feder and Scanlon 1982; Waldo, Levit, and Lazenby 1986).

The first study (Bishop and Dubay 1988) uses Medicare-Medicaid automated certification system (MMACS) and MEDPAR data to identify whether or not a nursing home participates in Medicare, as well as the number of Medicare patients admitted. The key issue addressed in this study is how nursing home markets and reimbursement arrangements affect nursing homes' willingness to participate in Medicare and to provide access for Medicare nursing home beneficiaries.

The second study (Dor 1988) uses Medicare nursing-home-cost report data for 1986 to estimate the marginal cost of Medicare patients. Medicare patients may be profitable for nursing homes once a facility has made a decision to serve heavy care patients in general and to devote a large share of its home to serving Medicare patients. In a facility oriented toward a lighter care mix of patients (Medicaid patients, for example), the marginal cost of Medicare patients is likely to be quite high and there may be little incentive for such facilities to respond to the increased demand for postacute patients created by PPS. The key issue here is to determine the relation between the additional nursing home cost of Medicare patients and the average cost of the nursing home, which is the basis of Medicare reimbursement.

Results

The major results of the component studies are summarized in this section, in question and answer form.

Do nursing home bed shortages affect hospital discharge delays?

The impacts of several variables on several proxy measures for ANDs are shown in table 4. The first variable is the supply of nursing home

beds per 1,000 elderly persons. As noted earlier, there is more than a fourfold difference in bed supply nationally. Our results (Holahan 1988; Holahan and Dubay 1988; Kenney and Holahan 1988) consistently show that the effect of the total bed supply on discharge delays is negative and statistically significant. The effect is consistent across data sets, alternative proxy measures of administratively necessary days, and different subsets of the Medicare population. The results strongly suggest that the fewer beds per 1,000 elderly persons, the longer hospital lengths of stay, the higher the proportion of stays greater than the national mean, and the more outliers the hospital will experience. The implication is that hospitalized Medicare beneficiaries are more easily discharged in markets with large numbers of nursing home beds. Nursing homes in markets with fewer beds can be more selective and appear to choose to serve other kinds of patients. The result is that patients end up staying longer in hospitals. The effect of bed supply is not large on average, however, with estimated elasticities ranging from 0.06 to 0.21, depending on the measure. That is, a 10 percent increase in the number of beds per thousand elderly is associated with between a 0.6 percent and a 2.1 percent reduction in discharge delays. The small impact is not surprising given that relatively few Medicare discharges need postacute care.

Does the percentage of nursing home beds certified to provide SNF care affect the ability of hospitals to discharge patients?

There is clear evidence from several data sets (Holahan 1988; Holahan and Dubay 1988) that the lower the percentage of beds certified to provide SNF care, the longer the hospital stays. Hospitals certified to provide SNF care, in general, are more abundantly staffed and provide a wider range of services. These nursing homes, in principle, should be better equipped to provide for the heavier care patients coming from short-stay hospitals. As a result, markets with nursing homes certified to provide SNF care should result in fewer patients remaining in hospitals. Our results confirm this expectation. The estimated impact of the percentage of beds certified to provide SNF care on measures of discharge delays did not vary substantially among studies (.06 to .09).

Do Medicaid nursing home reimbursement policies affect hospital discharge delays?

Access of Medicare hospital beneficiaries to nursing home beds can be expected to depend on the structure of the nursing home industry,

TABLE 4
Determinants of Discharge Delays: Summary of Results

	GAO survey discharge delays	MEDPAR mean length of stay	MEDPAR Percentage of stays between mean and outlier threshold	MEDPAR Percentage of stays > outlier threshold
Mean of dependent variable (R^2)	16.49%	8.90 (0.62)	0.332% (0.40)	0.018%
Bed supply				
Beds per 1,000 elderly	−0.55***	−0.06***	−0.12***	−0.21***
Percentage SNF	−0.05	−0.06***	−0.09***	−0.06***
Medicaid reimbursement				
Flat rate	−0.24*	0.21***	0.029***	0.002***
Prospective strong	0.28**	0.83***	0.018***	0.004***
Prospective weak	−0.22	0.75***	0.022***	0.002***
Medicare reimbursement				
Cost < 0.9 ceiling	0.08	−0.104***	−0.004**	0.0008***
Cost > 1.05 ceiling	−0.08	0.32***	−0.008***	0.003***

Waiver states			
N.Y./Mass. vs. PPS	0.40[a]**	3.73***	0.012***
N.J./Md. vs. PPS	0.40[a]**	1.86***	0.009***
Nursing home arrangement			
Own SNF	−0.28**	−0.42***	−0.007***
Swing beds	N.A.***	−0.09***	0.004***
Both	N.A.***	−1.07***	−0.016***
Other arrangement	N.A.***	−0.07***	−0.0006***

Notes: The bed supply variables are elasticities; other variables are regression coefficients. Estimated elasticities and coefficients are reported only where significance levels are .05 or better. The omitted categories for the binary variables are: cost-based retrospective reimbursement for the Medicaid reimbursement variables, cost-to-ceiling ratios ≥ .9 but ≤ 1.05 for Medicare reimbursement, the PPS states for the waiver variables, and hospitals with no long-term care arrangement for the long-term care variables. The coefficients are to be interpreted relative to the omitted variable. The regressions control for a large number of demographic, case mix, and hospital characteristic variables that are not reported.
 * Significant at the .10 level
 ** Significant at the .05 level
 *** Significant at the .01 level
 N.A. = Not available.
 [a] Only one binary variable was used for all waiver states.

given the supply of nursing home beds. Because of the importance of Medicaid as a third-party payer in this industry, the staffing and case mix of nursing homes can be expected to depend greatly on Medicaid policies. For example, if the Medicaid reimbursement system contains strong cost-containment incentives, nursing homes are likely to respond by reducing case mix and staffing commensurately (Dubay and Cohen 1988). Thus, nursing homes in states with prospective payment systems, may be less well equipped to care for Medicare patients because of the strong cost-containment features of these systems. Our results (Holahan 1988; Holahan and Dubay 1988; Kenney and Holahan 1988) strongly support this expectation. Hospitals in areas with prospective payment systems have consistently greater discharge delays than hospitals in states with retrospective systems, whichever measure and data set is used. Hospitals in states with flat-rate reimbursement systems also have higher percentages of lengths of stay and outliers than hospitals under retrospective systems. Nursing homes in states with cost-based reimbursement systems appear to be more adequately staffed and more able to serve Medicare patients coming from hospitals.

Do Medicare nursing home reimbursement policies affect hospital discharge delays?

The evidence is ambiguous. Despite the fact that Medicare pays for only about 2 percent of all nursing home patients, its reimbursement policies should also affect nursing homes' willingness to take Medicare beneficiaries from the hospital. This is because Medicare reimbursement policies are tied to the average cost of nursing homes, not to the cost of caring for Medicare patients. If industry costs tend to be low, the additional cost of a Medicare patient may exceed the average cost of the facility, even if it is below the Medicare ceiling, making nursing homes unwilling to take Medicare patients because they will increase average costs. If industry costs are high and the nursing home has average costs above the ceiling, Medicare patients will result in clear losses to the facility. Only if the marginal cost of Medicare patients is lower than both the average facility cost and the Medicare ceilings, will the facility have strong incentives to take on Medicare patients. But only nursing homes with relatively high costs are likely to have the staffing and service mix necessary to serve additional Medicare patients while avoiding financial losses.

These complex incentives are reflected in results (Holahan 1988;

Holahan and Dubay 1988; Kenney and Holahan 1988) that are some-
what inconsistent across studies. In general however, we conclude
that in areas where nursing home costs are on average greater than
the Medicare ceiling, hospitals experience longer discharge delays and
more outliers. We also found some evidence that hospitals in markets
where nursing home costs are well below the ceiling have difficulty
in placing patients. This is consistent with the view that the marginal
costs of Medicare patients in such homes is higher than average facility
costs.

Has the PPS system itself reduced hospital discharge delays?

Four states during the study period had waivers that exempted
them from Medicare PPS: New York, New Jersey, Massachusetts,
and Maryland. All had rate-setting systems with somewhat weaker
incentives to reduce lengths of stay than the PPS system, which allows
us to get some insight into the effect of PPS per se. The evidence
(Holahan and Dubay 1988; Kenney and Holahan 1988) is consistent
that hospitals in the waiver states had substantially greater discharge
delays on all three of our measures. The measures of delays were
greater in New York and Massachusetts than in the other two states.
The numerical results cannot be interpreted as solely measuring the
magnitude of the effect because they included the effects of initial
differences between the PPS and non-PPS states.

*Do hospitals with their own SNF units or swing beds discharge patients more
easily under the PPS system than hospitals with no nursing home arrangement?*

Hospitals with their own SNF units or swing beds (i.e., beds that
can be used for either acute or postacute care) can be expected to
discharge patients more promptly; they can then shorten the length
of stay and bill Medicare on a per diem basis for postacute care.
Hospitals with a regular arrangement with freestanding facilities
should also have an easier time discharging patients than hospitals
with no such arrangement. Our results demonstrate that hospitals
with their own SNF units have fewer discharge delays on all AND
measures (Holahan and Dubay 1988; Kenney and Holahan 1988) than
other groups of hospitals. Hospitals with swing beds had fewer dis-
charge delays (Kenney and Holahan 1988) than all other groups of
hospitals except those with SNF facilities.

*Are patients in some DRGs more likely to be backed up in hospitals than
others because of difficulties in access to the nursing home market?*

For the 16 DRGs most frequently associated with postacute care,

we found that stroke patients (DRG 14), patients with elective knee and hip replacement and hip and femur procedures (DRGs 209 and 210), and patients with organic disturbances and mental retardation (DRG 429) were more adversely affected by nursing home market conditions (Kenney and Holahan 1988). These patients have substantially higher than average rehabilitation, nursing, and other needs, which appear to put them at a greater disadvantage in securing placement in nursing homes when in markets with relatively few beds or tight reimbursement policies.

Are joint Medicare-Medicaid beneficiaries more disadvantaged than other Medicare beneficiaries?

The particular concern here is access for joint Medicare/Medicaid beneficiaries compared with other Medicare hospital beneficiaries when bed supply is limited and Medicaid/Medicare reimbursement policies tight. The reason for this concern is that nursing homes have been shown to prefer private-pay patients, who are clearly more profitable (Scanlon 1980). Joint Medicare/Medicaid beneficiaries are compared with those for two other groups, Medicare patients with private insurance and those with Medicare only (Holahan 1988). The results are shown in table 5. There were no major differences in the effects of bed supply and Medicaid reimbursement policies on hospital lengths of stay among the three groups. We did find, however, that joint beneficiaries had a more difficult time being placed in nursing homes than the other two groups in states with fewer beds and tight reimbursement policies, in particular Medicaid policies. These policies have less of an effect on the Medicare-only and Medicare with private insurance groups, possibly because these groups have a substantially greater likelihood of becoming private-pay patients. While the joint beneficiaries had a more difficult time being placed in nursing homes in states with fewer beds or Medicaid prospective payment policies, they did not appear to have longer hospital stays; rather as the results show, they were more likely to be discharged home. This combination of similar lengths of hospital stay but less access to nursing homes for the joint beneficiary groups at least suggests that they may be more likely to be discharged to home when they may require postacute nursing home care.

Do hospitals with limited access to the nursing home market have higher hospital costs per admission?

We found consistent evidence that nursing home bed supply and

TABLE 5

The Effects of Secondary Insurance Status on Nursing Home Access:
Summary of Regression Results

	Average length of stay	% to SNF/ICF	% to home
	Medicare-Medicaid		
Nursing home bed supply			
Beds per 1,000 elderly	− 0.04***	0.17***	− 0.17***
Percentage SNF beds	− 0.77**	− 5.35***	3.75*
Medicaid reimbursement			
Strong prospective	0.80***	− 7.25***	5.36***
Weak prospective	0.62**	− 3.16**	2.77**
Flat rate	1.55***	− 8.72***	5.92***
	Medicare-private insurance		
Nursing home bed supply			
Beds per 1,000 elderly	− 0.02***	0.03***	− 0.05***
Percentage SNF beds	− 1.21***	− 1.49***	− 1.24
Medicaid reimbursement			
Strong prospective	0.81***	− 1.15***	0.08
Weak prospective	0.92***	0.23	0.38
Flat rate	1.47***	− 0.72*	0.47

* Significant at the 10 percent level.
** Significant at the 5 percent level.
*** Significant at the 1 percent level.
Note: The nursing home bed supply variables indicate the effect on the dependent variable of a unit change in the independent variable. The Medicaid reimbursement effects should be interpreted as the percentage point difference in the dependent variable between the states with the indicated reimbursement arrangement and states with cost-based reimbursement, ceteris paribus. Tests for statistically significant differences across equations in the effects of all policy variables showed no differences in the length of stay equations but significant effects in the discharge to SNF/ICF and discharge home equations (with the exception of the weak prospective variable).

Medicaid reimbursement policies affect hospital costs per admission, even when differences in other hospital characteristics were controlled for. These results (Welch and Dubay 1988) are based on analyses of PPS states only—waiver states were excluded. The results are shown in table 6. The elasticity on the beds per 1,000 elderly of − 0.04 indicates that a hospital in a market with 10 percent more nursing home beds would have 0.4 percent lower hospital costs per admission, all else being equal. The SNF percentage had a similar effect. Medicaid prospective payment policies also were found to increase hospital costs

TABLE 6
The Effects on Nursing Home Bed Supply and Other Variables on Hospital
Costs per Admission: Summary of Regression Results

	PPS states
Nursing home bed supply	
Beds per 1,000 elderly	−0.04***
Percentage SNF	−0.03***
Medicaid reimbursement	
Flat rate	0.02
Prospective strong	0.05***
Prospective weak	0.06***
Case mix	−0.01
Medicare reimbursement	
Cost/ceiling	−0.01
Hospital nursing home arrangements	
Own SNF[a]	−0.02
Own SNF* (SNF beds/elderly)[b]	−0.03**
R^2	0.66

Note: These are estimated using a double log specification. The omitted categories for the binary variables are: cost-based retrospective reimbursement for the Medicaid reimbursement variables, and hospitals with no long-term care arrangement for the long-term care variables. Regression also controls for other hospital nursing home arrangements, beds, case mix, wages, the intern-resident ratio, disproportionate share, area population and percentage of elderly population aged 75 and over.
[a] Takes a value of one if the hospital has its own SNF unit and zero otherwise.
[b] This variable is the product of the two nursing home bed supply variables and the own SNF variable.
** Significant at the .05 level
*** Significant at the .01 level

per admission, with effects ranging from 2 to 6 percent relative to states with cost-based nursing home reimbursement.

Hospitals with their own SNFs also are able to reduce their costs per admission below that of other hospitals. Hospitals with their own SNFs appear to reduce costs only in tight nursing markets. That this advantage is reduced in areas with more favorable nursing home market conditions implies that hospitals have less difficulty discharging patients if nursing home market conditions are favorable even with no special arrangement.

These results provide further evidence that hospitals in unfavorable nursing home markets are at a relative disadvantage. We then con-

TABLE 7
Distributions of Cost Attributed to AND,
Teaching, and Poor Patients as a
Percentage of Total Costs
(0 = mean impact)

	Percentile		
	75th	85th	95th
AND	1.9%	2.9%	4.5%
Teaching	0.0	1.6	10.7
Disproportionate share of poor patients	0.0	2.4	6.4

Note: The unit of observation is the hospital. Waiver states are excluded.

ducted simulations to determine whether these impacts were large or small. Essentially, we calculated the effect on hospital costs per case due just to the nursing home market and reimbursement policy variables. We then arrayed the distribution—those at the top were most adversely affected, while those at the bottom were least affected. The hospitals in the distribution that have the worst AND problem are of greatest interest. Table 7 records the values at the 75th, 85th, and 95th percentile. For 25 percent of the hospitals, ANDs appear to increase costs by at least 1.9 percent over average market conditions; for 15 percent of the hospitals, they increase costs by at least 2.9 percent; and for 5 percent, they increase costs by at least 4.5 percent.

A policy question of interest is how these effects compare to costs of teaching and having a patient population that is disproportionately poor. To consider this issue we constructed similar distributions showing the costs associated with teaching and disproportionate shares of the poor patients. Table 6 shows also parts of these distributions. Hospitals at the 75th percentile are not typically teaching hospitals, so their teaching costs are zero. A similar situation occurs with disproportionate share costs.

At the 85th percentile, predicted costs are greater for ANDs than for teaching or disproportionate shares of poor patients. At the 95th percentile, however, the impact of ANDs is about one-half that of teaching and below that of the disproportionate share of poor patients.

Thus, ANDs appear to affect a larger number of hospitals, but the most severe impact of ANDs (i.e., the tail of the distribution) is less than for teaching and somewhat less than for disproportionate share. *What is the overall cost of administratively necessary days?*

In order to get some idea of the magnitude of the cost to United States hospitals of ANDs, we estimated the total cost to losers under the current system. This is equivalent to the total benefit to gainers, of course, because PPS rates were based initially on *total* hospital costs including the cost of discharge delays. Our results show that the PPS system significantly underpays hospitals with limited access to nursing home markets and overpays those with easy access.

Our estimation methodology uses regression analysis to link average hospital cost per case to a set of hospital-specific variables. Using the regression coefficients and the hospital's own values for the nursing home bed supply and market reimbursement policy characteristics, we obtained a set of predicted values for hospital's cost per case due, positively or negatively, to the effect of these characteristics. When compared to the mean for all hospitals, these predictions indicate whether a hospital is a net gainer or net loser from the system. The extent of this redistribution is given by multiplying the number of discharges at each "losing" hospital by the difference between its predicted value and the mean predicted value and summing these values for all "losing" hospitals. Note that this is probably a conservative estimate, because the impact of any systematic influence on discharge delays not included in the regression (such as Medicare coverage policy or any disadvantages that waiver hospitals face that are beyond their control) is not considered. The result is the total cost burden that the losers bear and that the winners have earned through PPS overpayments. In this manner, we estimate the cost to the losers (and, therefore, the gain to the winners) at $420 million in 1987 dollars. (This figure includes an estimate for New York and Massachusetts.) It should be emphasized again that this cost is not distributed evenly across "losing" hospitals, but rather is a substantial burden on a subgroup of hospitals.

Are Medicare SNF reimbursement rates high enough to encourage nursing home participation in Medicare?

This issue has been central to policy debates in Medicare for several years. It is well recognized that Medicare patients have greater nursing and rehabilitation needs than other patients and are, therefore, more

costly to nursing homes (Shaughnessy et al. 1985). Yet, nursing home payment policies are based on the average costs of all skilled nursing facilities with a ceiling set at 112 percent of the mean (adjusted for wage differences). Because the costs of Medicaid and private patients are below those of Medicare patients, Medicare rates may not be adequate. Medicare patients are far more costly than either private or Medicaid patients according to our estimated cost functions. The marginal cost of an average Medicare patient is estimated to be about $124 per day, compared to $67 for a private and $53 for a Medicaid patient (Dor 1988). The marginal cost of a Medicare patient declines as Medicare volume increases, whereas average facility cost and Medicare payment both increase as Medicare patients are substituted for lower-cost private and Medicaid patients. Thus, Medicare patients become profitable at a certain volume of Medicare patients. This volume is high, however, estimated at an average daily census of approximately 37 Medicare patients in a combined SNF/ICF and 43 in a SNF only. (The average number of beds in SNFs and SNF-ICFs is 88 and 127 respectively.) At these levels, however, the facility may find itself above the Medicare cost ceilings. It is not surprising, given these results, that few nursing homes participate in Medicare and that most of those that do limit their participation to under 2,500 patient days per year.

That there is any nursing home participation at all is probably attributable to three factors. First, hospital-based facilities may participate to facilitate moving patients out of the hospital, where the marginal revenue from additional days is zero; some marginal revenue is better than none when the patient cannot be sent home. Second, some Medicare patients eventually become private-pay patients which are profitable to the nursing home. Third, nursing homes may decide to participate in Medicare to a small degree, in order to maintain good relations with hospitals, physicians, and the community.

What factors determine Medicare admissions to skilled nursing facilities?

A central thesis of this article is that hospital back-up days are due in part to difficulty in obtaining access to nursing homes. Because the marginal cost of Medicare patients is higher typically than the average facility cost, as already noted, the incentives to treat Medicare patients are minimal at best. One study (Bishop and Dubay 1988) looked specifically at the issue of why nursing homes serve Medicare patients. The results provide several insights. First, facilities oriented

to serving private-pay patients have higher Medicare admissions than other facilities. This is consistent with expectations, since such facilities tend to have higher average resources per patient day, making them better able to meet Medicare patient needs without increasing the average intensity of resources used per patient day.

Second, facilities were more likely to serve Medicare patients in areas where Medicaid patients are paid for under cost reimbursement and where Medicaid SNF rates are high. Nursing homes in states with either flat-rate or prospective-payment approaches were less likely to admit Medicare patients. It should be noted, however, that once a nursing home has made a decision to participate in Medicare, the proportion of Medicare admissions is lower the *higher* the Medicaid SNF rate. In other words, high Medicaid SNF rates allow nursing homes to have levels of resource use per patient that are high enough to serve Medicare patients. The higher the Medicaid SNF rate, however, the more attractive are Medicaid patients relative to Medicare patients. Medicare participation is also more likely and the proportion of Medicare patients admitted higher in for-profit facilities, hospital-based SNFs, and larger nursing homes.

Conclusions and Policy Options

We conclude that there is a problem of administratively necessary days, measured as discharge delays, for some hospitals under PPS. This finding is consistent across several measures of delay, several data sets, and several studies. Nursing home bed supply is one major factor, but there are others as well—including the stringency of Medicaid nursing home reimbursement policy, the adequacy of Medicare nursing home reimbursement rates relative to nursing home costs in an area, and the willingness of nursing homes in an area to serve patients needing skilled care.

Hospitals with more limited access to nursing homes have higher costs, other things being equal. The cost burden is not large on average, but substantial for some hospitals. Estimates indicate that the cost burden is similar to that borne by hospitals with a disproportionate share of poor patients, but less than that of teaching hospitals.

Joint Medicare/Medicaid beneficiaries seem to have more limited

access to the nursing home market than Medicare-only patients or patients with Medicare and private insurance. These patients do not stay in hospitals longer. Rather, they are more likely to be discharged home without postacute care. This finding suggests that hospitals are unwilling to keep these patients longer, perhaps because of the financial hardship that continuing to care for them would impose.

Hospitals with their own SNF facility or swing beds (beds that can be used for acute or postacute care) discharge patients more quickly than hospitals with no control over nursing home beds. These hospitals appear to be at a financial advantage under PPS, because discharging patients to SNF care in these circumstances leaves the hospital's PPS acute-care reimbursement rate unchanged while allowing the care of those patients to be reimbursed on a per diem basis.

Finally, four states that were not under PPS in 1985 (the study period) had far greater discharge delays than PPS hospitals—effects that were above and beyond the influences of the bed supply and reimbursement factors that we controlled for. This suggests that the states that initially had waivers exempting them from the PPS system—in particular New York and Massachusetts—have longer discharge delays, for reasons that go beyond nursing home market access. Unlike PPS, the rate-setting systems in these states did not penalize long lengths of stay and, in fact, may have encouraged the pattern of providing care within the hospital that in other states would be provided in nursing homes. This historical effect is very large and suggests that hospital discharge delays are more of a problem in these states than elsewhere. New York and Massachusetts hospitals are now under PPS. It will be extremely important to examine any changes in discharge delays that may have occurred since 1985, now that New York and Massachusetts have entered the PPS system.

Policy Options

Based on these findings we have considered a number of policy options. These are: maintaining current policy, paying for administratively necessary days directly, increasing Medicare reimbursement rates for SNF care, adjusting PPS rates for nursing home access, and adjusting the current PPS outlier policy.

Maintain Status Quo. The first option is simply to do nothing; Medicare could simply continue to follow the policy of compensating

hospitals for day outliers. Currently, the day outlier threshold is set at 1.94 standard deviations above the national geometric mean length of stay. Medicare pays the hospital on a per diem basis for the marginal costs of care thereafter.

The argument for doing nothing is that ANDs are not as serious a problem as some others that face the PPS system (e.g., case-mix severity or being in a rural area) and that most hospitals, whatever their characteristics, have fared well in the early years of PPS. As a result, losses relative to what a hospital might have experienced may not be absolute losses. Moreover, our research has shown that the day-outlier policy does distribute Medicare dollars in the right direction. The distribution is far from perfect, but hospitals in areas with fewer nursing home beds and with stringent Medicaid reimbursement policies tend to get more money. In addition, the hospitals with some control over postacute care beds (and thus the ability to discharge patients to postacute care more easily) receive fewer outlier dollars. The outlier days appear to be overcompensated—that is, day-outlier payments are probably considerably higher (about $260 on average) than the marginal cost of AND patients (about $125, on average, based on estimates of the marginal cost of additional Medicare patients in nursing homes, by definition the same type of patients remaining in hospitals). But they do go some of the way to offsetting the lack of compensation for days below the outlier threshold.

A further argument in favor of doing nothing is that the presence of ANDs is largely the result of state policy toward the nursing home industry. Bed shortages and the orientation of nursing homes to lower levels of patient care, lower levels of staffing, etc., reflect decisions made in response to policy developed at the state level. It could be argued that the Medicare program should not have to compensate for decisions that have been made by states and could be remedied at the state level.

The argument against doing nothing is that the hospital itself is not responsible for the way the nursing home industry has developed in a given state. The fact remains that some hospitals have been hurt financially by the PPS system through no fault of their own. These hospitals must bear the costs of many ANDs that are not covered by the present-day outlier policy. Furthermore, as Medicare profit rates decline the problem will change from being an issue of relative loss

to a true source of financial distress. And it is the Medicare beneficiary who will be hurt if quality of care suffers as a consequence.

Pay for ANDs Directly. The second option is to pay for ANDs as reported directly by hospitals, subject to review by HCFA, or by professional review organizations (PROs). Hospitals could presumably be given uniform reporting instruments with which to record ANDs. Such instruments would identify the days that are delayed beyond the time at which the physician authorizes discharge and provide the reason for delay. Delays related to the unavailability of a nursing home bed and unrelated to practice patterns would be reimbursed on a separate per diem basis by Medicare. This approach has the potential of being more accurate than policies that would link payment to bed availability or one which compensates for all day outliers (discussed below).

This policy, however, has numerous disadvantages. It would add enormously to the paperwork and reporting requirements of hospitals, and would place a tremendous burden on HCFA (or the PROs) to assess the veracity of the AND data being reported by the hospital. Rejecting claims may be very difficult if documentation is provided by the hospital. If the likelihood of rejection is low and AND payment rates exceed the marginal cost of these days, the number of claims could rise dramatically. Outcomes would also be subject to considerable variation simply related to efforts that discharge planners are willing to make to locate available beds. Furthermore, the paperwork burden would have to be repeated each year as hospitals continued to report the number of ANDs. The final disadvantage is that paying directly for ANDs would return to the hospital control of the amount of payment it receives; this would be in direct contradiction to the philosophy underlying the whole PPS system.

Increase the Medicare Reimbursement Rate for SNF Care. A third option would be to increase Medicare reimbursement rates for SNF care to encourage greater access for Medicare hospital patients. This general policy option could also include liberalization of SNF coverage requirements. The intent is to increase access in markets where it is now limited. This may be a desirable policy for many reasons, but could become a very expensive way to address the AND problem. It would mean increased payment rates for the SNF care that is currently provided, as well as for the care such a policy would induce because

of expanded access for Medicare beneficiaries to SNFs. The increased use would come not only from those patient days classified currently as ANDs but also from some patients who currently go home as well as some who use SNFs, as Medicaid or private-pay patients. This may improve the efficiency of the entire system, but it would be a relatively high-cost policy for Medicare.

This policy is also not as simple as it may appear. In fact, Medicare access to SNF care depends on the existing structure (e.g., staff and case mix) of the nursing home industry. As we have shown, Medicare rates under current policy do not come close to covering the marginal cost of additional Medicare patients in most homes. Medicare payment rates exceed the marginal costs of adding Medicare patients only in homes that are well staffed and already serve a large volume of patients. Thus, the increases that will be required to assure access are likely to be quite large.

Adjust PPS Rates for Nursing Home Access. A fourth option is to make adjustments to the PPS payment rates that reflect nursing home access similar to the current adjustments for indirect medical education. Under this proposal, HCFA could add or subtract an adjustment factor to the standardized amount for the effect of nursing home access on hospital cost per admission. Hospitals that have more limited access to the nursing home market, and, therefore, have higher costs per admission, would receive higher PPS payments. Those that are easily able to discharge patients (and, therefore, have lower cost per admission for these DRGs) would get lower PPS payments.

Such an adjustment could be made for all DRGs or just those that most commonly lead to postacute care. Adjusting the standardized amount for all DRGs would be more straightforward conceptually but may be unnecessary and undesirable, given that access to nursing home beds probably does not affect the length of stay for most DRGs. Since it is likely to affect cost per admission for some DRGs (those most commonly leading to postacute care), making some adjustment may be warranted.

The first problem with this option is that it introduces yet another adjustment to the PPS payment system, which already includes special treatment of teaching hospitals, hospitals with a disproportionate share of low-income recipients, rural status, and other factors. Second, adjusting for different levels of nursing home care supply is not

sufficient to create equity. Our research finds that other characteristics of the nursing home market (e.g., the percentage of facilities providing skilled care, Medicaid reimbursement policies, and perhaps others not controlled for) also affect access of Medicare hospital patients. A policy that incorporates these other factors is very difficult to design, but a policy that does not incorporate them would not solve the equity problem.

Adjust the Current Outlier Policy. The fifth and final option is to make adjustments to current Medicare outlier policy. For the 16 DRGs that most commonly lead to postacute care, the outlier threshold ranges from 22 to 30 days with episodes that have mean lengths of stay of 8 to 12 days. After the stay crosses the outlier threshold, Medicare will pay at 60 percent of the Medicare per diem, approximately $260 in 1987.

One option would be to liberalize the day-outlier cutoff, say to 1.6 standard deviations, but reduce the outlier payment. Under such a scheme a greater proportion of long-stay patients could be reimbursed by the system with no increase in cost. One could reduce the day-outlier payment from its current 60 percent of the hospital per diem to, say, 30 to 40 percent (which would still be above the current hospital-based nursing home ceiling), or simply pay at the hospital-based SNF ceiling for the area. While an adjusted outlier policy would not pay all the costs for ANDs for those hospitals where it is a problem, the statistical relations among bed supply, Medicaid reimbursement policies, etc., and outliers is such that the payments would tend to be distributed appropriately.

The problem with this proposal is that it would result in payment for some outliers unrelated to ANDs and in payments for outliers in all geographic areas—even those without limited access to nursing home beds—and for outliers in DRGs where postacute care is uncommon. This is not a trivial problem. New York and Massachusetts have a larger number of long-stay patients and more outliers than any other states. Even the number of days on outlier status in those states is longer than elsewhere. Some of these days are accounted for by nursing home market conditions, but many are not. Using outlier policy in this manner would overcompensate hospitals in these states, where the problem seems to lie in historical responses to those states' rate-setting systems and to institutional differences in the role of the

hospital. This policy would also go counter to current policy directions which are to deemphasize the day-outlier policy. Finally, it may weaken PPS incentives to reduce lengths of stay.

Our Preferred Strategy

We think the most promising approaches are the third and the fifth options: increasing nursing home reimbursement rates and adjusting current outlier policy. The latter would involve a reduction in the per diem rate for days exceeding the day-outlier threshold to a level consistent with the ceilings faced by hospital-based nursing homes. Then, the day-outlier threshold would be liberalized so that a greater proportion of days provided to long-stay patients were covered. As indicated in our discussion above, this policy would be imperfect but, in general, additional Medicare payments would go to the right hospitals. This change in itself could be budget neutral.

According to evidence in this study, the marginal cost of Medicare patients exceeds the current reimbursement rates for most nursing homes. Increasing nursing home rates would be equitable and encourage greater access for patients being discharged from hospitals. The major disadvantage of increasing nursing home reimbursement rates, perhaps combined with a movement to case-mix-adjusted payments, is the budgetary cost. It is policy makers who must ultimately decide whether the increased access for Medicare patients is worth the budgetary cost. Our analyses, however, provide evidence that the AND problem is sufficiently large to merit serious consideration of this option. As recognized above, the relaxation of coverage requirements in April 1988 and the Catastrophic Coverage Act are likely to change the access of Medicare patients to nursing homes, affecting both the size of the problem and the budgetary impact of increasing rates. Therefore, policy makers may wish to wait until these changes have been implemented before making a final decision on increasing nursing home rates.

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