# Hospital back-up days: Impact on joint Medicare and Medicaid beneficiaries

In this article the question of whether nursing home market characteristics affect the ability of hospitals to discharge patients to nursing homes is examined. Also examined is the question of whether joint Medicare and Medicaid beneficiaries have a more difficult time being placed than do other patients. The principal conclusions are first, that the nursing home bed supply and the type of Medicaid payment system affect the ability of hospitals

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to discharge patients to nursing homes. Joint Medicare and Medicaid beneficiaries have a more difficult time being placed in nursing homes in States with fewer beds and more restrictive Medicaid payment policies, and joint beneficiaries do not appear to have longer stays in hospitals. Rather, they have a greater likelihood of being discharged to home.

## Introduction

In the Omnibus Budget Reconciliation Act of 1986, Congress required that the Department of Health and Human Services study whether hospitals in areas with limited access to the nursing home market are adversely affected, relative to other hospitals, by the prospective payment system (PPS). Congress was concerned that hospitals with limited access to the nursing home market must continue to bear the costs of added days of care and that the quality of that care might suffer. These hospital days are known as administratively necessary days, i.e., days in which patients, because of inability to secure placement in a nursing home, remain in acute care beds beyond the time the physician has authorized discharge. This article focuses on whether joint Medicare and Medicaid beneficiaries (also known as dual eligibles) have more difficulty than other Medicare patients in obtaining access to nursing home beds and, as a result, stay in hospitals longer than other Medicare patients.

Because direct data on administratively necessary days are unavailable, we are limited to analyzing hospital lengths of stay as a proxy for administratively necessary days. The argument is that limited access to the nursing home market results in patients staying in hospitals longer; the result is longer lengths of stay when measures of nursing home capacity, case mix, and other variables are controlled. Findings from other research undertaken in related studies (Holahan and Dubay, 1988; Kenney and Holahan, 1988; Welch and Dubay, 1988) have shown that hospital lengths of stay and resulting hospital costs per admission are related inversely to nursing home bed supply and to the generosity of Medicaid nursing home payment policies. These results suggest that in markets with relatively few beds, nursing homes have more discretion in choosing among patients and are less likely to admit sicker Medicare patients leaving the hospital. Given Medicare and Medicaid payment policies and a more limited bed supply, other kinds of patients are

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simply more profitable. In markets with a more abundant supply of beds, nursing homes appear to be more willing to admit Medicare hospitalized patients. These studies have also shown that the percent of beds in a geographic area that are certified as skilled nursing facilities (SNFs) appears to be related to hospitals' ability to discharge patients.

Medicaid payment policies are likely to affect the nursing home's willingness to admit Medicare patients. Medicare hospitalized patients can enter nursing homes as Medicare, Medicaid, or private patients, depending on their condition and economic resources. If patients meet Medicare's skilled care requirements, they may enter nursing homes as Medicare patients if they can find a home that serves Medicare patients. Otherwise, they will enter as private or Medicaid patients, depending on their income and assets. Because of its dominant role in the nursing home market, Medicaid policies play a major role in affecting admission and case-mix decisions of nursing homes. Nursing homes appear to respond to tighter Medicaid payment policies by becoming more efficient, reducing staffing, and choosing to serve a lighter care mix of patients. As a result, hospitals in States with prospective payment for nursing home care appear to have more difficulty discharging Medicare patients to nursing homes.

All theses factors appear to make it difficult for some hospitals to reduce lengths of stay under the PPS system. These hospitals are worse off than hospitals that are in areas with different kinds of nursing home markets. Beyond this, hospitals may find it more difficult to place certain types of Medicare hospital patients in nursing homes. The issue that this article addresses is whether joint Medicare and Medicaid beneficiaries are more affected than other Medicare patients when bed supply is limited, Medicaid payment policies are tight, etc. Joint beneficiaries are those individuals whose combination of age, income, and assets makes them eligible for both programs; for most services, this means that Medicaid will pay for the cost-sharing obligations left by Medicare. In the case of nursing home care, joint beneficiaries are more likely to have their care covered and paid for by Medicaid, either immediately or after Medicare coverage ends.

The reason for concern over joint beneficiaries is that nursing homes have been shown to prefer private-pay

patients who are clearly more profitable. Patients who are admitted to nursing homes as Medicare patients may eventually become private-pay patients when Medicare coverage ends. Other patients may be admitted initially as private pay if, for example, they do not meet Medicare coverage requirements. It has been shown (Scanlon, 1980) that Medicaid patients are essentially at the end of the queue. This is even more true for Medicaid patients coming from hospitals because they are likely to need intensive care. If the nursing home is aware that patients are likely to become Medicaids patient after the Medicare benefits are exhausted, the joint beneficiaries admitted as Medicare patients may face more difficulty obtaining placement. These patients frequently have complex care requirements but at the same time eventually have their costs paid for by Medicaid. Thus, compared with other Medicare patients, joint beneficiary patients in States with fewer beds or tight Medicaid payment policies may have an even harder time gaining admittance to nursing homes.

### Data and methods

In this article, we use data from the Center for Professional Hospital Activities (CPHA) Professional Activity Study (PAS) for 1985. In 1985, data were provided for 2,396 hospitals in the States that were on PPS (four waiver States were excluded). The CPHA data do not include a representative sample of all U.S. short-term general hospitals, with hospitals in the East North Central region being overrepresented and hospitals in the Middle Atlantic underrepresented. The CPHA data, however, allow us to distinguish between patients by type of payer: Medicare patients with private insurance, Medicare-only patients with no secondary insurance, and joint Medicaid and Medicare beneficiaries. For each hospital and payer, data are provided on length of stay and the disposition of each discharge: Death, home, home health service, SNF, and intermediate care facility (ICF). The file also indicates whether the admission was from an SNF.

The CPHA data thus allow us to look at Medicare beneficiaries with different types of supplementary insurance and to analyze the impact of nursing home and policy variables on lengths of stay and discharge destinations for each group individually, holding constant case mix and other patient characteristics. Variables from several other sources have been added to this file. For the three-digit ZIP Code areas in which the hospital is located, I have added data on nursing home bed supply and percent of nursing homes that are certified for Medicare and the percent certified to provide skilled care. These variables were derived from the 1985 Medicare-Medicaid Automated Certification Survey (MMACS).

I have also added several nursing home policy variables. These include the Medicaid payment system for the State in which the hospital is located. These data are based on a 50-State survey that collected information on Medicaid nursing home policies for 1980 through 1985 (Laudicina, 1987). I have classified the alternative Medicaid payment system into four types. The first is flat-rate arrangements, a form of prospective payment,

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 and third approaches are facility-specific prospective payment arrangements, where rates are based on nursing homes' cost experience projected forward to a rate year. I have divided the prospective payment systems into those with strong and weak efficiency incentives. Those with strong efficiency incentives are those where rebasing takes place no more frequently than every 2 years, while those with weak incentives rebase more frequently. The distinction is based on the fact that the more frequent the rebasing, the more the payment system approaches a cost-based system. Payment systems which rebase infrequently loosen the tie between the rate and the facility's own costs. This makes them more fully prospective. These are not precise measures of the stringency of the payment systems. Other factors, such as ceilings and efficiency incentives, can alter the character of each payment system. The fourth grouping is cost-based or retrospective payment systems.

Variables that capture the relationship between nursing home costs and Medicaid payment ceilings were also created. Essentially, these variables are the ratio of average nursing home costs in the State to nursing home ceilings. Medicare payment ceilings are constructed using data on Medicare-certified facilities from the entire United States with appropriate wage adjustments; therefore, costs for a group of nursing homes in any State could be well above or below the ceilings. Three ratios are constructed: Less than 0.9 times the ceiling, 0.9 to 1.05 times the ceiling, and 1.05 times the ceiling. These are essentially measures of how close to Medicare ceilings the average costs (the basis of Medicare payment) of nursing homes in the State typically are.

The CPHA data indicate the average age, percent male, percent black, percent of all other races, and the percent of admissions from an SNF. A case-mix variable that is constructed on the basis of hospital charges for cases classified by diagnostic category, age of patient, and presence or absence of surgery is also on the file. The case-mix index is calculated for each hospital for each payer type. In addition to the CPHA case-mix index, I also controlled for the percent of patients who died during the year. The higher the percent dead, the greater the case-mix severity. I also included binary variables for each of the nine census regions because of different hospital admission and the practice patterns that affect decisions regarding lengths of stay.

Regressions are estimated for each of three Medicare populations: Medicare patients with no secondary insurance, Medicare patients with private insurance, and joint Medicaid and Medicare beneficiaries. Patients' lengths of stay in hospitals controlling for case mix and the set of nursing home market variables have been analyzed. In addition to length of stay equations, regressions are also estimated for percent of a hospital's patients that are discharged to either a SNF or ICF, the percent discharged to home, and the percent discharged to home health care. The hypotheses are that hospitals (or Medicare patients) in markets with more limited supplies of nursing home beds will have longer lengths of stay. In

addition, they are likely to have fewer discharges to SNFs or ICFs and more discharges home and to home health care.

I also expect that tight Medicaid payment policies are likely to lead to fewer discharges to SNFs or ICFs, longer lengths of stay, and perhaps more discharges home. For each of these variables, it is hypothesized that joint beneficiaries will be more affected than the other two groups of Medicare beneficiaries. There is no firm hypothesis about the effect of Medicare payment policies. If nursing home costs on average are low relative to Medicare ceilings, it may be possible for nursing homes

Table 1
Summary of mean values for dependent and independent variables

	Mean values for each variable			
Variables	Medicare only	Joint beneficiaries	Medicare with private insurance	
Number of hospitals	2,171	1,918	1,970	
_ ·	2,171	1,910	1,970	
Average length of stay	8.92	9.43	8.48	
Percent of hospital discharge to SNF	8.51	18.30	5.46	
Percent of hospital discharge to ICF	3.36	9.64	2.03	
Percent of hospital discharge to SNF or ICF	11.87	27.94	7.48	
Percent of hospital discharge to home	79.09	62.85	84.75	
Percent of hospital discharge to HHC	4.00	4.26	3.59	
Average age	72.82	73.16	73.53	
Percent black Percent all other	9.30	14.04	4.38	
races	2.57	4.12	1.52 45.05	
Percent male Case-mix index	46.62 1.11	33.04 1.09	1.09	
COTH hospital	0.08	0.07	0.07	
Minor teaching	0.09	0.10	0.10	
Large city	0.17	0.16	0.16	
Nonmetropolitan	0.46	0.47	0.47	
Proprietary hospital	0.04	0.03	0.03	
Public hospital Nursing home beds	0.20	0.20	0.20	
per 1,000 enrollees Percent of hospitals	53.76	54.63	54.08	
with own SNF unit	0.13	0.14	0.14	
Percent died	6.89	7.16	5.31	
Percent from SNF	3.45	11.00	1.58	
New England	0.07	0.07	0.07	
Middle Atlantic	0.02	0.03	0.02	
South Atlantic	0.19	0.19	0.10	
East North Central  East South Central	0.36 0.02	0.38 0.02	0.38 0.02	
West North Central	0.02	0.09	0.02	
West South Central	0.03	0.04	0.03	
Mountain	0.06	0.05	0.06	
Pacific	0.17	0.13	0.13	

NOTES: SNF is skilled nursing facility. ICF is intermediate care facility. COTH is Council of Teaching Hospitals.

SOURCE: Urban Institute data files based on the 1985 Center for Professional Hospital Activities (CPHA) Professional Activity Study (PAS) data, the 1985 Medicare-Medicaid Automated Certification Study, and other sources.

to admit hospitalized Medicare patients, incur the costs of caring for these patients, and remain below Medicare ceilings. Thus lengths of stay in hospitals would be shorter under low cost-to-ceiling ratios. At the same time, however, the marginal costs of these Medicare patients may be considerably above the average costs of caring for these patients. As a result, under this scenario, nursing homes would be less likely to admit Medicare patients and lengths of stay would be longer. Alternatively, if costs are generally above 1.1 times the Medicare ceiling, nursing homes will clearly lose (on an average cost basis) on each Medicare patient admitted. However, the marginal costs of these Medicare patients may be below the average costs or even the ceiling on which payment is based, and as a result, these nursing homes may be willing to admit hospitalized Medicare patients.

Summary statistics on the data used in this article are provided in Table 1. The number of hospitals varies across the three groups because of missing values, e.g., a hospital may not have had joint beneficiaries during the 3 month period or a value for one of the independent variables was missing; in either case the hospital is excluded from the regression analysis. The summary statistics show that joint beneficiaries are slightly older, more likely to be black or "all other races," or more likely to be female. There is little difference among the three groups in the distribution across geographic areas. Joint beneficiaries have a substantially higher likelihood of being admitted from a SNF. They also have a slightly higher probability of death during the hospital stay, but on the other hand, the case-mix index is no higher. The summary statistics also show that the average length of stay for joint beneficiaries was slightly longer than for the other two groups. The probability of a discharge to a SNF or ICF was also significantly higher; as a result fewer joint beneficiaries are discharged home. Joint beneficiaries appear slightly older and to be greater users of post-acute care in general.

## Results

Separate regressions were estimated for each of the three population groups. Because the data for each group are aggregated at the hospital level with different numbers of cases for each hospital, ordinary least squares estimation is likely to be inefficient. Weighted least squares provides efficient estimates of the regression parameters when the weights are chosen so that the disturbance term in each equation has the same variance. In these equations, I weight by the square root of the number of Medicare discharges, creating a homoskedastic disturbance term.

The full regression results are available from the author. The results for selected policy-relevant variables in each of the four regression equations are shown in Table 2:

- Average length of stay.
- Percent to SNF/ICF.
- · Percent to home.
- Percent to home health.

The variables included in Table 2 are beds per 1,000 elderly, percent of beds in the market area that are certified to provide skilled care, prospective strong,

Table 2 Summary of effects of selected policy variables on length of hospital stays and discharge destinations

Variables	Average length of stay	Percent to SNF/ICF	Percent to home	Percent to home health
Medicare only			<u> </u>	
BEDS	***-0.03	***0.06	***-0.09	**0.02
Percent SNF	**-0.87	*-1.26	-1.25	***3.47
Prospective strong	***0.96	***-2.31	1.24	0.44
Prospective weak	***0.89	***-1.30	*1,44	-0.37
Flat-rate	***1.37	***-1.65	1.33	-0.26
Medicare and Medicaid				
BEDS	***-0.04	***0.17	***-0.18	0.02
Percent SNF	**-0.77	***-5.36	*3.73	***3.13
Prospective strong	***0.80	***-7.25	***5.36	0.98
Prospective weak	**0.62	**-3.16	**2.77	-0.01
Flat-rate	***1.55	***-8.72	***5.92	**2.04
Medicare and private insurance				
BEDS	***-0.02	***0.03	***-0.05	*0.01
Percent SNF	***-1,21	***-1.49	-1.24	***3.27
Prospective strong	***0.81	***-1.15	0.08	*0.83
Prospective weak	***0.92	0.23	0.38	0.20
Flat-rate	***1.47	*-0.72	0.47	0.01

<sup>\*</sup>Statistically significant at the 0.10 level.

NOTES: Regression estimates based on multivariate models which controlled for case mix, demographic characteristics, hospital characteristics such as teaching and occupancy, region and size of the geographic area in which the hospital is located. SNF is skilled nursing facility. ICF is intermediate care facility. SOURCE: Holahan, J.: Urban Institute, Washington, D.C., 1990.

prospective weak, and flat-rate Medicaid payment. The results should be interpreted as the effects of these variables on each of the dependent variables holding constant case mix, demographic characteristics, hospital characteristics such as teaching and occupancy, regional influences, and size of the geographic area in which the hospital is located.

# Average length of stay

The results in Table 2 indicate that both the supply of nursing home beds and the percent of beds certified to provide skilled care are statistically significant when related to average length of stay. This effect generally holds up across the three groups. Tests for statistically significant differences in coefficients on the five policy variables across the type of beneficiary equations revealed no differences at the 0.05 level. The elasticity on the bed supply variable is somewhat higher for the joint beneficiaries. The elasticity on the beds variable in the joint beneficiary equation is 0.21, meaning that a 10-percent reduction in the bed supply could lead to a 2.1-percent increase in the average length of stay. In the Medicare only and Medicare private insurance equation, the elasticities are 0.16 and 0.11 respectively.

The percent SNF coefficient is also negative and significant in all three equations. This would imply that the greater the share of beds certified to provide SNF care, the shorter hospital lengths of stay for Medicare patients.

Payment policies of Medicaid nursing homes also appear to affect Medicare hospital lengths of stay. The three Medicaid payment policy variables (prospective strong, prospective weak, and flat-rate) all have statistically significant coefficients and are positively

related to average length of stay for all three population groups. This clearly implies that all of the prospective payment systems, in comparison with cost-based payment, result in Medicare patients staying in hospitals longer. The effects lengthen the stay by approximately 1 day. Again, there are no significant differences across beneficiary groups in the effect of any of the nursing home market variables on average length of stay.

# **Nursing home admissions**

The percent discharges to SNFs and ICFs equation captures discharges to both levels of nursing home care. Since the classification of patients into skilled care versus intermediate care varies considerably across States, distinguishing between the two levels did not seem useful in measuring access to nursing homes. The effects of all five policy variables were significantly stronger (at the 0.05 level) in the joint beneficiary equations than for either group. (The one exception was the prospective weak variable, where the results were not significantly different between the Medicare-only and joint beneficiary equations.) The implication is that joint beneficiaries are more likely to be affected by nursing home market conditions, though in some cases these impacts are not great.

The beds per 1,000 enrollees variable is significant at the 0.01 level for all three equations, meaning that markets with more nursing home beds have proportionately more nursing home admissions. The elasticity in the joint beneficiary equation is slightly higher than in the Medicare-only and Medicare and private insurance (0.34 vs. 0.27 and 0.22) equations.

The percent SNF variable is significant but negative for all three groups. While the variable has a substantially

<sup>&</sup>quot;Statistically significant at the 0.05 level.

<sup>&</sup>quot;"Statistically significant at the 0.01 level.

higher estimated coefficient (in absolute value) for joint beneficiaries, the elasticities are approximately the same for all three groups. In the Medicare-only and Medicare and private insurance groups, the elasticities are 0.06 and 0.12 respectively. For the joint beneficiary groups the elasticity is 0.12. The negative sign means that more patients are placed in nursing homes in markets where a higher percent of homes provide intermediate care. This in turn could mean that patients with less resource-intensive care needs are admitted in such markets.

These results also suggest that hospitals in strong prospective payment States have proportionately fewer discharges to nursing home care for joint beneficiaries than for Medicare-only and Medicare and private insurance groups. The other two forms of prospective payment also have adverse effects on nursing home admissions, relative to cost-based payment, for joint beneficiaries. The results mean that the percent of joint beneficiaries discharged to nursing homes in prospective weak States was 3.2 percent lower than in cost-based payment States, ceteris paribus, and 8.7 percent lower in flat-rate States. As argued earlier, I expect Medicaid payment to affect discharges of even Medicare-only or Medicare and private insurance patients to nursing homes because of their effect on staffing patterns and case-mix decisions of nursing homes. I would expect the effect to be even stronger on joint beneficiaries because these patients could become long-term Medicaid patients. The other Medicare patients could become private-pay patients and are thus more attractive to nursing homes. Thus, it is not surprising that prospective payment systems have a stronger negative effect for joint beneficiaries.

# Discharges to home

The combined effect of these regressions suggests that joint beneficiaries have a harder time than other groups being admitted to nursing homes (when nursing home bed supplies are limited or payment policies are restrictive), but do not have longer lengths of stay. Joint beneficiaries are somewhat affected by the overall bed supply and have a more difficult time obtaining access to nursing homes in markets with fewer beds. They are also less likely to be placed in nursing homes in States with Medicaid prospective payment systems, relative to joint beneficiaries in States with cost-based payment systems. If these patients are less likely to be admitted to nursing homes but not more likely to stay in hospitals longer, where do they go?

The answer is that they appear to be discharged to home at much higher rates where nursing beds are scarce and Medicaid reimbursement policies are tight. The effects of all policy variables (with the exception of prospective weak) were significantly stronger (at the 0.05 level) in the joint beneficiary equations than in the other two equations (Table 2). The nursing home bed supply also appears to affect the percent of discharges to home, but this effect is similar across groups. The higher the bed supply, the fewer patients discharged home. Conversely, markets with tight nursing home bed supply result in more patients being discharged to home. This effect is somewhat larger for joint beneficiaries

(elasticities equal 0.14 vs. 0.06 and 0.03 for the other groups). The percent of beds that are certified to provide skilled care appears to affect joint beneficiaries but not the other two groups. This is consistent, for the joint beneficiaries, with the fact that there are fewer overall admissions to nursing homes (at any level) where the percent SNF is high. The result is more discharges to home

A more striking finding is that hospitals in States with prospective payment policies discharge a substantially greater share of their joint beneficiary patients home than States with cost-based payment policies. The payment policy variables are not statistically significant for the Medicare-only or Medicare and private insurance patients. However, the estimated effect in the joint beneficiary equation suggests that prospective payment results in from a 2.8 to 5.9 percentage point increase in patients discharged home.

The bottom line then is that joint beneficiaries are less likely to be placed in nursing homes in States with prospective payment systems relative to States with cost-based payment systems. They are slightly more likely to experience longer hospital lengths of stay. Medicare-only and Medicare and private insurance patients are also less likely to be admitted to nursing homes, particularly ICFs, and also stay slightly longer in hospitals. The difference is that the effect on discharges to nursing homes on joint beneficiaries is much greater, and the effect on their hospital lengths of stay is no different. The primary difference is that the joint beneficiaries are more likely to be discharged home.

# Discharges to home health care

Interestingly, discharge to home health service is positively related both to beds and the percent SNF in all three equations. (The beds variable is not significant in the Medicare and private insurance equation.) The elasticities are fairly comparable, and the variables are highly significant. This seems to suggest that home health care is an add-on rather than a substitute for nursing home care, particularly skilled nursing care. If anything, home health care substitutes for care provided formally. The Medicaid payment variables do not appear to affect the provision of home health care.

#### Other results

The results for several other variables were of some interest. First, the Medicare payment policy variables are rarely significant in any equation; this could be caused by the way in which these variables are measured. Unfortunately, I could only measure the ratio of nursing home costs to Medicare ceilings at the State level; therefore, insignificant results are not too surprising. Second, the case-mix index was significant and positive in the length of stay, SNF-ICF, and home health care equations, and significant and negative in the discharge home equation. These results indicate that hospitals with a higher case-mix index have longer lengths of stay, more discharges to SNFs and to home health care, and fewer discharges directly home. Third, hospitals with their own SNF unit were found to have shorter lengths of stays for

joint beneficiaries, more discharges to SNFs and fewer discharges home, all things being equal.

Finally, the regional binary variables showed interesting patterns. Lengths of stay in most regions of the country (other than East South Central and West South Central) were significant and positive in relation to the Pacific region. The Pacific region also appeared to be somewhat more likely to discharge patients to nursing homes and the East South Central less likely when all other variables are controlled for. Several regions, notably the South Atlantic, East South Central, West South Central, and Mountain region, had positive coefficients in the discharge home equations. The higher discharges home in these four regions seems to be because of somewhat fewer discharges to nursing homes and fewer discharges to home health care. The New England region was significant and negative in the discharge home equation. The New England results seem to be related to a much higher probability of discharges to home health care.

### **Conclusions**

There are five basic conclusions that can be drawn from this research. The first is that the nursing home bed supply—both the total available beds per 1,000 Medicare enrollees and the percent of beds certified for skilled nursing care—as well as the type of Medicaid payment system affects the ability of hospitals to discharge patients under the PPS system. Because all hospitals have very strong incentives to reduce their lengths of stay, it appears that the ability to do so is related to the hospital's access to the nursing home market. These results have been shown in previous analyses (Dubay and Cohen, 1988; Holahan and Dubay, 1988) that have looked at the effects of similar nursing home market capacity measures on lengths of stay, percent of discharges greater than the national mean, and hospital outliers; however, they are useful because they come from an independent source on more than 2,000 hospitals.

The second finding is that there are no major differences in terms of hospital lengths of stay across three population groups: Medicare patients with no secondary insurance, Medicare patients with private insurance, and joint beneficiaries, in the effects of both the bed supply measures and the Medicaid payment policies. The nursing home market characteristics affect all three groups in a fairly similar manner.

The third conclusion is that although joint beneficiaries have higher rates of admissions to nursing homes, they nonetheless have a relatively more difficult time being placed in nursing homes in States with fewer beds and tighter Medicaid payment policies. Medicaid payment policies appear to affect the nursing home's willingness to take on sicker Medicare patients (Dubay and Cohen, 1988). These policies have less of an effect on the Medicare-only or Medicare with private insurance groups, possibly because these groups have a greater likelihood of being private-pay patients. This result would argue strongly for the adoption by Medicaid programs of casemix adjustments to nursing home rates that would make sicker Medicaid patients more attractive to nursing homes.

The fourth conclusion is that although joint beneficiaries have a more difficult time being placed in nursing homes in States where Medicaid payment is prospective, they do not appear to have longer hospital stays in those States relative to States with cost-based payment. Rather, they have a greater likelihood of being discharged home. As previously noted, these results control for case mix and the percent of patients who die in the hospital. It seems, therefore, that the problem for the joint beneficiaries may not be that difficulty in obtaining access to the nursing home market results in more administratively necessary days, but rather that hospitals are discharging patients to home when they may require subacute nursing care. This article obviously cannot address the issue of the appropriateness of these discharges nor the quality of care provided in hospitals prior to discharge.

The final conclusion is that home health care does not appear to be a substitute for nursing home bed shortages nor to offset the effect of bed supply limitations or tight Medicaid payment policies on hospital lengths of stay. There appears to be more home health care in the same markets where there are more discharges to SNFs than to ICFs. That is, in markets with relatively few nursing home beds, there appear also to be fewer discharges to home health care and higher hospital average lengths of stay.

It should be noted that these results are based on data for a period prior to the introduction of very important changes in the Medicare SNF benefit. The 1988 changes in SNF coverage guidelines and the passage of the Medicare Catastrophic Coverage Act (MCCA) have had important effects on the use of the Medicare SNF benefit and presumably on access of hospitalized patients to nursing homes. The revised coverage guidelines greatly relaxed criteria for Medicare coverage and have reportedly resulted in considerable increases in the number of Medicare-approved SNF claims. The MCCA legislation eliminated the 3-day prior hospital stay, increased the number of days of SNF care available under Medicare, and drastically reduced coinsurance requirements. All these changes would seem to make provision of SNF care to Medicare beneficiaries more attractive. Thus, further research on the effect of nursing home market conditions on access of joint beneficiaries in the post-catastrophic era would be warranted. The basic conclusion of this article, however, remains unaffected by recent legislative changes. That is, that in nursing home markets with limited bed supplies and/or tight Medicaid payment policies, some rationing of care will be inevitable, and there is a strong likelihood that lowincome beneficiaries, e.g., joint Medicaid and Medicare beneficiaries, will be adversely affected.

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