

# Assessing Medicare reimbursement options for skilled nursing facility care

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*In this article, a broad array of Medicare payment options for skilled nursing home care are examined, ranging from cost-based retrospective systems to various prospective arrangements. Each system contains different incentives to meet four policy goals: provide access for Medicare patients; increase access for patients requiring resource-intensive care; contain*

*growth in program costs; and assure the delivery of high-quality care. The financial impacts of alternative policy options on nursing homes are presented through the use of a simulation model. Facility-specific payment systems are shown to most effectively incorporate incentives to contain costs and promote beneficiary access to care.*

## Introduction

The Medicare-certified skilled nursing facility (SNF) benefit is small, in relation both to Medicare expenditures (.8 percent in 1985) and to the national nursing home expenditures (1.7 percent in 1985). In addition, use of Medicare-certified SNF's has grown very little (2.2 percent growth in patient days from 1983 through 1985) since the adoption of the Medicare prospective payment system (PPS) for hospitals. This slow growth may seem surprising, given the strong incentives under PPS for hospitals to discharge patients earlier.

It would be a mistake, however, to take the small scale and slow growth of the Medicare-certified SNF market as evidence that Medicare policy with respect to SNF reimbursement is not a major issue in the post-PPS era. On the contrary, the potential remains for Medicare expenditures on covered SNF care to expand rapidly for two major reasons.

The first is increased demand for care. The Medicare program pays for short-term SNF care (maximum of 100 days) to beneficiaries whose need for skilled nursing or rehabilitative care meets the strict requirements necessary to qualify for coverage. Because of these constraints, the average covered length of stay was only about 26.6 days in 1984. As pressure grows from PPS for hospitals to discharge patients earlier, the average level of care needed by discharged patients can be expected to increase. This may qualify more Medicare beneficiaries for SNF care; it may also increase the days of care that beneficiaries will require and that will be paid for by Medicare. (Relaxation of Medicare coverage requirements should also increase the demand for care.)

The second is the high cost of Medicare-covered SNF care relative to other nursing home care. The rate of inflation in the prices nursing homes must pay for nurses and other inputs increased by 17.5 percent from 1981 through 1983. The per diem costs of care in Medicare-certified facilities during the same period rose by 24.4 percent. Routine operating costs and capital costs grew by just 18-20 percent. Ancillary

costs, however—which are not subject to any Medicare reimbursement controls—rose almost 50 percent (Holahan and Sulvetta, 1987). (In 1983, routine operating expenses accounted for 74.7 percent of Medicare-covered SNF costs, ancillary costs for 19.2 percent, and capital costs for 6.1 percent.) As hospital PPS stimulates increased demand for SNF care, costs per day are likely to increase even more, increasing policy pressure to control costs. At the same time, however, with increased demand for care SNF's will be confronted with higher cost Medicare patients, whom they may be increasingly unwilling (or unable) to serve unless the reimbursement system enables them to cover their costs.

The conflict between cost and access can be expected to increase, highlighting the need for careful analysis of reimbursement system options. In this article, we provide a guide to the issues facing Medicare in establishing prospective payment policy for skilled nursing care. We begin by reviewing the recent history of Medicare-certified SNF reimbursement policy. We then discuss a range of alternatives that might be employed, and we establish a set of criteria for judging existing and alternative policies. Finally, we use a simulation model developed at The Urban Institute to examine the fiscal effects of alternative policies in light of these criteria.

## Reimbursement policy choices

### Recent history

The recent history of Medicare's payment policy for SNF's reflects concern with program costs, with financial burdens on facilities providing care to sicker Medicare patients, with limited beneficiary access to SNF's, and with differentials in payments made to hospital-based and freestanding nursing homes. Until October 1986, the primary reimbursement system for Medicare had been a system of retrospectively determined reasonable costs, subject to limits applied to routine operating costs. Ancillary costs and capital were paid on the basis of costs not subject to limits. The limits on routine costs were set at 112 percent of the average costs (wage adjusted) of urban and of rural facilities. Prior to October 1, 1982, separate cost limits were established for hospital-based and

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freestanding facilities. The 1982 Tax Equity and Fiscal Responsibility Act (TEFRA) eliminated these dual limits, mandating single limits based on 112 percent of mean costs of freestanding facilities.

The Deficit Reduction Act of 1984 (DEFRA) provided a compromise, resetting reimbursement limits for hospital-based SNF's that were equal to the limits for freestanding SNF's, plus 50 percent of the difference between cost limits for hospital-based SNF's and cost limits for the freestanding SNF's. Because hospital-based SNF's were thought to suffer from the Medicare cost-allocation process, an additional add-on for hospital-based facilities was also allowed. Prompted by concern over limited beneficiary access to SNF's following PPS, Congress, as part of the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA), increased these incentives to expand participation in the Medicare program. Starting October 1, 1986, low-utilization SNF's with fewer than 1,500 Medicare-covered days could choose to be paid on the basis of a prospectively determined flat rate that was equal to 105 percent of the mean operating and capital costs of all (including hospital-based and freestanding) facilities rather than their actual costs. All other facilities continued to be paid under the DEFRA system.

### **Reimbursement system issues**

Evidence of the relative effectiveness of the current system, as modified by COBRA, in gaining increased access for Medicare beneficiaries is not yet available. However, problems of costs and access for heavy-care patients remain, and the search for payment alternatives continues. In formulating such alternatives, several issues should be addressed.

First, what type and level of nursing home costs will be reimbursed by the program? The current reimbursement system establishes limits on routine operating costs, but it allows full reimbursement of capital and ancillary costs. As noted earlier, although capital costs have been increasing relatively slowly, ancillary costs in Medicare-certified facilities have been growing particularly fast. Should a new system continue to impose controls only on routine operating costs, or should ancillary and capital costs be included as well? Ancillary costs vary considerably among nursing homes for reasons that are not well understood. Thus, limits on reimbursement that affect incurred ancillary costs may adversely affect the quality of care provided to many beneficiaries. For this reason, none of the options considered later in this article include ancillary costs in calculating payment limits. For the most part, capital costs also are not included in cost limits (an exception is the COBRA flat rate), although most proposals could be easily modified to include capital cost limits. The key question is: If only some costs are regulated, might costs be shifted to areas not subject to limits?

Second, should the payment system continue to be retrospective or should some element of prospectivity

be included? Retrospective systems pay costs up to a preestablished limit. There are two broad alternative types of prospective arrangements. The first is a simple prospectively established flat rate, whereby all facilities within the same class (e.g., urban and rural, case-mix comparability, etc.) are paid at the same rate, independent of actual cost experience. The second payment approach is facility-specific, whereby rates are established based on the prior cost experience of the facility itself, trended forward to the rate year and subjected to ceilings on the basis of class of facility. The former has stronger cost-containment incentives and much greater redistributive effects. The latter is less fully prospective; thus, its cost-containment incentives may be weaker.

Third, should a case-mix adjustment be made? Recent evidence suggests that it is not possible at this time to make sophisticated case-mix adjustments as in the hospital diagnosis-related group system. But recent evidence also suggests that establishing separate rates or ceilings based on the percentage of Medicare patient days would be a useful proxy for case mix (Health Care Financing Administration, 1985). Such adjustments would be an improvement over the current system because differences in case mix and in costs among different kinds of homes would be recognized, thus assuring more equity in the system.

Fourth, how high should ceilings be? Ceiling rates are used to establish limits on the amount that Medicare is willing to pay facilities with similar characteristics. Facilities with costs greater than a specified level for the group are, in effect, considered inefficient; and their excess costs are disallowed. The issue is what is the best cutoff. Are nursing homes above 112 percent of the mean inefficient, as under current policy, or are those above 105 or 100 percent inefficient? Other decisions are also very important but relatively noncontroversial. For example, the current system makes a wage adjustment for area differences and adjusts rates or ceilings accordingly.

### **Alternative Medicare reimbursement approaches**

In the last few years, an array of reimbursement proposals that reflect decisions on each of these issues has been considered. It is useful to group these proposals into the following five major categories, with mention of several variants of each.

#### **Deficit Reduction Act payment system**

This is a retrospective system whereby facilities are paid their incurred costs subject to limits. Ceilings for freestanding facilities are set at 112 percent of the mean of freestanding costs. The ceilings for hospital-based facilities are equal to those for freestanding facilities, plus 50 percent of the difference between the ceiling for freestanding facilities and a similarly calculated ceiling for hospital-based facilities. Capital costs are passed through. Variations on this approach

include setting hospital-based ceilings at 112 percent of the mean of hospital-based costs (dual limits) or setting the hospital-based ceilings (single limits) equal to the freestanding ceiling. An additional variation would be to include capital costs in the basic calculation.

### **Consolidated Omnibus Budget Reconciliation Act**

Under this option, facilities with more than 1,500 Medicare-covered days are paid on exactly the same basis as they would have been under DEFRA. Facilities with less than 1,500 Medicare-covered days are given a choice between a flat rate calculated at 105 percent of the mean cost of all homes (hospital-based and freestanding combined) or reimbursement at actual costs up to the DEFRA ceiling. Medicare-certified facilities would presumably choose whichever arrangement would yield the greatest revenue. Variations on this option include setting different flat rates for hospital-based and freestanding facilities and excluding capital costs from the flat-rate calculation and reimbursing capital costs on a cost basis. A major alternative is to give facilities for which Medicare pays for less than 10 percent of patient days a choice between the flat rate or their actual costs up to the DEFRA ceiling. Facilities with more than 10 percent of their patient days paid for by Medicare would continue to be paid on the basis of the DEFRA ceilings.

### **Flat-rate prospective reimbursement**

Under this arrangement, flat rates would apply to all homes. Rates for freestanding facilities would be set at 112 percent of the mean costs for freestanding facilities. Hospital-based rates would be equal to 112 percent of the mean costs for freestanding facilities, plus 50 percent of the difference between the ceilings for freestanding facilities and those for hospital-based facilities. Capital costs could either be passed through or included in the calculation. The flat rate could be calculated at 105 percent or 100 percent of the mean. The flat rate for all facilities, hospital-based or freestanding, could also be calculated based on the costs of all homes.

An alternative is to establish separate rates for three levels of percent Medicare patient days, that is, rates could be based, for example, on the costs of facilities with less than 10 percent Medicare patient days, 10 percent to 40 percent, and more than 40 percent. Percent Medicare days is used as a proxy case-mix measure because more accurate measures are not currently available. (Nursing homes with a large volume of Medicare-covered days, say more than 7,000 Medicare-covered days, representing less than 40 percent of total days, might also qualify for the higher rates.) Rates for freestanding facilities would be set at 112 percent of the mean of costs for freestanding facilities for each group. Rates for hospital-based facilities would be 112 percent of the mean of costs for freestanding facilities for each

group, plus 50 percent of the difference between 112 percent of the mean for freestanding facilities and that for hospital-based facilities.

### **Facility-specific prospective reimbursement**

Nursing homes would be paid a prospective rate based on their own costs, trended forward to the rate year. Ceilings for freestanding facilities would be set at 112 percent of the mean of costs for those homes. Ceilings for hospital-based facilities would be 112 percent of the mean of costs for freestanding facilities, plus 50 percent of the difference between the ceilings for freestanding facilities and those for hospital-based facilities. Capital costs would be passed through. A variation would be to include capital costs in the basic calculation. Rates in subsequent years would be calculated by adjusting existing rates by the HCFA market basket. Recalculation on the basis of new cost data, referred to as rebasing, would occur at specified intervals, such as every 3 years. An alternative would be to calculate separate ceilings for three levels of percent Medicare participation. Rates for hospital-based facilities would be higher, based on a calculation similar to that described earlier.

### **Facility-specific reimbursement with incentive adjustments**

Under this arrangement, facilities with 10 to 40 percent or more than 40 percent Medicare participation would be reimbursed exactly as under the previous arrangement. Facilities with less than 10 percent Medicare participation would be paid either a flat rate or under DEFRA principles, whichever is greater. The flat rate would be calculated at 100 percent of the mean of all urban or rural nursing home costs, including or excluding capital. One variation would be to calculate the flat rate at a higher level, e.g., 105 percent. Another would be to reimburse the low-participation facilities the flat rate or a facility-specific rate, whichever is greater. The facility-specific rate would be calculated as in the previous arrangement.

With the exception of COBRA, each of these arrangements would mean a change from the current system. Legislative changes of this type are often accompanied by hold-harmless provisions, the intent of which is that no facility would be worse off than they otherwise would have been, at least initially. Under such arrangements facilities are paid at the higher of the reimbursement under the new arrangement or the previous arrangement.

### **Assessing alternative payment systems**

In this section, we examine a set of criteria that might be used to assess alternative policies. Not all the criteria can be met by any one policy, but it is important to consider each of them in making policy choices.

## Access to care

The first criterion is whether the policy encourages access to care for Medicare beneficiaries. Medicare beneficiaries are, typically, a small share of all the patients in a particular nursing home. To assure access, the Medicare program must pay a rate at least equal to the marginal costs of the additional Medicare patients. Nursing homes with some excess capacity—i.e., an existing supply of empty beds, nursing and administrative staff in place, etc.—should be willing to serve Medicare patients as long as Medicare rates cover the relatively low marginal costs of a few patients.

To obtain greater access for Medicare patients so that these patients are substituted for Medicaid or private patients, the Medicare program may have to pay a rate at least equal to the full average costs of a Medicare nursing home day. Medicare patients typically require more resources (nursing time, therapy, supplies, etc.) than non-Medicare patients. Thus, for a nursing home to expand in order to provide access for Medicare patients, it may be necessary to employ more highly qualified staff, obtain new kinds of supplies and equipment, etc. The marginal costs of Medicare patients in such an instance will exceed average costs (Dor, 1988).

Obtaining access for Medicare patients is also likely to require different rates in different nursing home markets. In some States, Medicaid reimbursement programs have provided strong incentives for nursing homes to become certified as SNF's. Nursing homes meeting State Medicaid certification standards for providing skilled care can more readily adapt to Medicare certification requirements and provide care to Medicare patients. Other States have provided strong incentives for nursing homes to become certified as intermediate care facilities (ICF's); however, these tend to have nursing home industries that are predominantly ICF oriented. Because Medicare is a small share of the overall market in these types of States, it has a difficult time providing the necessary incentives for nursing homes to increase their Medicare participation. In the nursing home markets heavily oriented towards providing skilled nursing care, marginal costs of expanding access for Medicare patients may not be great. However, in the nursing home markets oriented largely towards lower level, ICF patients, it may be very costly to change staffing patterns and augment the facility's capital stock to enable nursing homes to provide care to Medicare beneficiaries. Thus, achieving equal access to care for Medicare beneficiaries may require unequal reimbursement rates.

## Access for heavy-care patients

The second criterion is whether the policy improves access for heavy-care Medicare patients. Medicare patients tend to have more than average health care needs; many require tube feeding, indwelling catheters, etc. The program must be willing to pay the

additional cost of heavier care patients. Again, in this instance, the marginal costs may exceed the average costs. Nursing home payments that are based on average costs will, in this case, discourage facilities from treating such patients.

## Cost containment

The third criterion is whether the policy encourages cost containment. To do so, the reimbursement policy must encourage nursing homes to be efficient and to avoid incurring unnecessary expenses. For many facilities, Medicare-covered patient days may be too small a share of total patient days for the reimbursement policy to have much effect on the facility's operating efficiency. But for many nursing homes where Medicare-covered patient days are, for example, 10 percent or more of the facility's patient days, the program may have a significant effect on efficiency and, in turn, on nursing home costs. Thus, the incentives in the reimbursement system are an important component and are likely to become increasingly so as Medicare access expands.

## Quality of care

The fourth criterion is whether the policy encourages quality. The system should, at a minimum, not discourage the use of additional resources when necessary to provide adequate quality care. The system should also avoid incentives for nursing home admissions to facilities without the necessary resources required to care adequately for Medicare patients.

## Program expenditures

The fifth criterion is whether the policy minimizes program costs. The cost-containment incentives in the reimbursement system will be an important determinant of the effect of the system on program costs. However, some systems (e.g., flat-rate arrangements) may pay higher rates than necessary to have lower cost nursing homes provide adequate care for their current case load. Although such an arrangement may provide strong cost-containment incentives, the same incentives could be incorporated in the system with lower overall rates.

## Administrative complexity

The sixth criterion is whether the policy minimizes administrative complexity. Currently, reimbursement systems require nursing homes to submit cost reports. This can be a substantial burden on many facilities, and more than those with a small Medicare share are willing to bear. Reimbursement arrangements that incorporate case-mix information for the purposes of setting rates can impose substantially greater administrative burdens on nursing homes. Case-mix-related nursing home rates depend on frequent

collection of detailed case-mix information. There is a clear tradeoff between the gain from setting rates that accurately reflect case mix versus the additional administrative burden on the nursing home of complying with the reimbursement system's information needs.

### **Equal treatment of equals**

The final criterion is whether there is equitable treatment of nursing homes providing care for patients with similar needs. Nursing homes providing care to patients with similar medical or social problems should be paid similar rates. Conversely, nursing homes caring for different kinds of patients should be treated differently.

### **Simulating effects of alternative reimbursement systems**

During the past several years The Urban Institute has developed a nursing home simulation model for the Health Care Financing Administration (HCFA), designed to test the impact of alternative prospective payment systems for Medicare SNF's on Medicare outlays and on the distribution of payments across nursing homes. An earlier version of the model has been used extensively by HCFA and the Congress in examining several prospective payment options, in developing the program changes in the recent legislation, and in further analyses of industry and administration proposals.

The current version of the simulation model, based on Medicare cost reports from over 2,400 SNF's, projected nursing home costs from 1983 to 1986 and 1988. The projections were then adjusted slightly so that overall totals agreed with projections made by HCFA actuaries. Algorithms were next developed to accurately describe both current and several alternative reimbursement systems.

Facilities with cost reports for both 1981 and 1983 were then matched, and nursing home costs were projected to 1986 using the HCFA nursing home market-basket index. Regression equations that explain nursing home cost growth between 1981 and 1983 were then used to project individual facilities' growth rates out to 1988. The method allows us to project a facility's growth in costs based on growth patterns we have observed for similar facilities in 1981 and 1983 and to normalize that growth to that expected for the industry as a whole between 1986 and 1988. For facilities with cost reports for only 1 of the 2 years, we assumed that the projected growth rate was equal to the average growth rate for matched facilities of the same type adjusted for the differences in the average growth rates in those years and the expected growth rates for 1986-88.<sup>1</sup>

The cost projections were used in two ways. The

projected 1988 costs represent our forecast of the actual 1988 cost experience of each nursing home. The projected 1986 costs were used as the basis for establishing 1988 rates or ceilings. The revenues the home would have received were then compared with their projected cost experience in 1988. The simulations were then aggregated across nursing homes to produce information on the effects of alternative reimbursement systems for all nursing homes and for nursing homes with specific characteristics. In this way, the effect on program expenditures and the impact on specific types of facilities could be determined, and the degree to which different policy objectives were met by the proposed reimbursement system could be assessed. For example, policies aimed at increasing the participation of low-volume Medicare-certified facilities or reducing losses of hospital-based facilities could be studied. Rates could then be adjusted if the impact were not as strong as desired, and so forth.

The simulations do not incorporate behavioral responses because there are no available research estimates of the response of nursing homes to changes in Medicare rates. Two kinds of behavioral responses would be particularly desirable to include were the data available: the supply response; and the extent to which nursing homes will become more or less efficient in response to reimbursement policy.

This procedure essentially replicates the distribution of costs across nursing homes that existed in 1983 and projects it to 1988. Furthermore the levels of costs, on the average, are consistent with the HCFA actuaries' projections for nursing home costs in 1988. The effects of reimbursement policies in terms of gains and losses faced by individual nursing homes will depend on the distribution among facilities of their levels of costs. To the extent that the distribution differs from that observed in 1983 the simulation will be subject to some error. For example, if the distribution of costs is more dispersed, gains and losses from the policies that were simulated are likely to be greater than we have projected. Conversely, if the distribution is tighter, gains and losses will be smaller. These effects, however, should not be particularly important in comparing alternative kinds of policies.

### **An assessment of alternative policies**

In this section, we use the results of simulations to compare program costs under the alternative Medicare-reimbursement approaches listed earlier with current law; and we discuss how different policies affect different types of nursing homes in terms of the criteria we have developed. Because the current policy debate has basically been driven by concerns about the effects on program expenditures, effects on hospital-based and freestanding facilities, and considerations of case mix and access, we show the effects of different policies on hospital-based and freestanding facilities and facilities categorized by percent of total patient days accounted for by

<sup>1</sup>For technical details of the estimation procedure, see Holahan and Sulvetta, 1987.

Medicare. We then briefly discuss the implications of alternative policies for access, quality, cost containment, administrative complexity, and equity of treatment across facilities.

### Deficit Reduction Act payment system

The DEFRA reimbursement system in place prior to COBRA was a retrospective system that reimbursed nursing homes on the basis of their costs up to separate ceilings for hospital-based and freestanding facilities. A prior system (TEFRA) had limited hospital-based facilities to the ceilings for freestanding facilities. The ceiling for hospital-based facilities was lowered in DEFRA to 50 percent of the difference between the ceilings for hospital-based and freestanding facilities to reflect statistical evidence that

case mix and staffing differences accounted for only about one-half the difference in costs.

### Simulation results

Alternative cost-reimbursement systems are compared in Table 1 with current law (i.e., COBRA). In 1988 dollars, DEFRA would cost 3.9 percent less than COBRA. Freestanding facilities, particularly those with less than 10 percent Medicare patients, receive substantially less under DEFRA than they do under current policy. This is because the current arrangement pays a flat rate to facilities with less than 1,500 Medicare-covered days. Because many of these facilities also have less than 10 percent Medicare-covered days, they have benefited from current policy. As shown, hospital-based facilities and large-volume

**Table 1**  
**Summary results of proposed SNF reimbursement systems, 1988 dollars in thousands, and percent change in payments from current system**

Reimbursement system	All facilities	Hospital-based			Freestanding		
		0-9.9 percent Medicare	10-40 percent Medicare	Over 40 percent Medicare	0-9.9 percent Medicare	10-40 percent Medicare	Over 40 percent Medicare
<b>Current system (COBRA):</b>							
Ceiling at 112 percent for all facilities with more than 1,500 Medicare days and capital costs are passed through; flat rate at 105 percent of mean urban or rural ROC and capital costs of all homes with 1,500 or fewer Medicare days with a hold-harmless provision	\$1,166,211	\$34,927	\$59,376	\$221,861	\$279,991	\$255,699	\$314,356
<b>DEFRA:</b>							
Retrospective systems with ceilings set at 112 percent of mean urban or rural freestanding ROC; hospital-based homes receive 50 percent of the difference between mean freestanding and hospital-based homes' costs; capital costs are passed through	1,121,217 (-3.9)	34,045 (-2.5)	59,372 (0.0)	221,829 (0.01)	243,079 (-13.2)	249,051 (-2.6)	313,842 (-0.2)
<b>Dual limits:</b>							
Retrospective systems with freestanding ceilings set at 112 percent of mean urban or rural freestanding ROC; hospital-based ceilings are set at 112 percent of mean urban or rural hospital-based ROC; capital costs are passed through	1,155,502 (-0.9)	35,784 (2.5)	64,249 (0.8)	249,499 (12.5)	243,079 (-13.2)	249,051 (-2.6)	313,842 (-0.2)
<b>Single limit:</b>							
Retrospective systems with freestanding and hospital-based ceilings set at 112 percent of mean urban or rural freestanding ROC; capital costs are passed through	1,065,013 (-8.7)	28,938 (-17.1)	49,611 (-16.4)	180,494 (-18.6)	243,079 (13.2)	249,051 (-2.6)	313,842 (-0.2)

NOTES: Numbers in parentheses indicate percent difference in cost of proposed option and the current system (COBRA). COBRA is Consolidated Omnibus Budget Reconciliation Act. SNF is skilled nursing facility. DEFRA is Deficit Reduction Act. ROC is routine operating costs.

SOURCE: The Urban Institute nursing home simulation model estimates.

freestanding facilities have been virtually unaffected by the change from DEFRA to COBRA. This is because neither group is likely to gain from the flat-rate provision, and no facility can be made worse off under the new policy.

The effects of establishing limits for hospital-based facilities based on their own costs (dual limits in place prior to TEFRA) and at freestanding levels (single limits legislated by TEFRA) are also shown in Table 1. A dual-limit policy, for example, would cost 3.0 percent more, or \$34 million, in 1988 dollars, than DEFRA. Hospital-based facilities, particularly those with a high level of Medicare participation, would have substantial revenue increases.

A single-limit policy would have a dramatic effect on both program costs and on hospital-based facilities. Program costs would fall by \$90 million, or 7.8 percent, relative to a dual-limit policy; by almost 5 percent, relative to DEFRA; and by 8.7 percent, relative to COBRA. Hospital-based facilities would suffer revenue losses ranging from 14.0 to 18.5 percent, relative to DEFRA.

Thus, DEFRA, which was intended as a compromise between single- and dual-limit options, would appear to have achieved its goal. Although more costly than the previous dual-limit arrangement, it also provided substantial relief to hospital-based nursing homes. Because these facilities provide care for sicker patients, this relief appears to be warranted (Holahan, 1987; Shaughnessy et al., 1985). However, the DEFRA system and its variants did little to encourage access for Medicare beneficiaries because Medicare beneficiaries are typically above average in costs compared with other patients. Payment on an average-cost basis does little to encourage nursing homes to take on Medicare patients. For similar reasons, the system does little to encourage access for Medicare patients with heavy-care needs. If the facility incurs costs above the ceiling, it will not be reimbursed. If it incurs added costs but stays below the ceiling, profits on other patients will be reduced.

Because the system pays on a retrospective basis, cost-containment incentives are weak in this type of arrangement. Facilities with costs above the ceiling have clear incentives to reduce them; facilities with costs below the ceiling do not. It is not clear, however, whether Medicare accounts for a sufficiently large share of a facility's patients to cause it to reduce costs. The system encourages high quality to the extent that incurred costs would be reimbursed as long as the facility's cost was below the ceiling. The system is relatively neutral with regard to program expenditures in that it pays no more than cost for facilities below the ceiling and incorporates a ceiling on payment rates. However, as the simulation results show, the level of the ceilings on hospital-based facilities has a big impact on expenditures. Under all policy options, Medicare is somewhat dependent on the rest of the market; if the private market or the Medicaid-reimbursement system encourages cost containment, the Medicare program would benefit with relatively low outlays.

The system is not administratively complex. It requires nursing homes to submit cost reports; but it does not require any additional information, such as data on case mix. The system does not provide for equal treatment of nursing homes with similar kinds of Medicare patients. Hospital-based facilities, for example, could be paid more than freestanding facilities with the same case mix. Conversely, freestanding facilities with the same kinds of cases could be paid very different rates, depending on the costs they incurred.

## **Consolidated Omnibus Budget Reconciliation Act**

With the introduction of the Medicare PPS, a large increase in the demand for nursing home care was anticipated. However, it was argued that skilled nursing facilities might not expand access for Medicare patients because of the retrospective, cost-based reimbursement system. Because Medicare paid on an average-cost basis, incentives to admit Medicare patients were limited. The 1986 COBRA legislation introduced a policy that incorporated incentives to encourage low-volume Medicare-certified facilities to expand their participation. As noted, facilities with less than 1,500 Medicare-covered days were paid on the basis of a flat rate. They could choose to accept a flat rate or to be paid on a cost basis, whichever was more profitable. Facilities with more than 1,500 Medicare-covered days continued to be reimbursed on a cost basis up to the DEFRA limits.

Several alternative approaches that would incorporate the COBRA access incentives were simulated. COBRA alternative A (Table 2) sets the flat rate on the basis of 105 percent of the mean urban and rural freestanding operating costs and gives hospital-based facilities an additional 50 percent of the difference between the ceilings for freestanding and hospital-based facilities (also calculated at 105 percent of the mean). This system, which is more philosophically in line with previous arrangements that allowed higher reimbursements for hospital-based facilities, is about 2 percent or \$23 million less expensive than current policy. It gives more revenue to hospital-based facilities and less to freestanding nursing homes. The advantage of this policy is that hospital-based facilities may be better equipped to care for Medicare patients; and providing them (especially those with a low volume of Medicare patients) incentives to increase participation, might increase access to facilities better able to provide needed services. The disadvantage is that freestanding facilities would receive weaker incentives to participate.

COBRA alternative B sets the flat rate at 105 percent of the mean of urban and rural routine operating costs of all homes, including both freestanding and hospital-based. This increases the level of the flat rate for freestanding nursing homes and lowers it for hospital-based facilities. Not



**Table 2**  
**Summary results of proposed COBRA alternative reimbursement systems, 1988 dollars in thousands, and percent change in payments from current system**

Reimbursement system	All facilities	Hospital-based			Freestanding		
		0-9.9 percent Medicare	10-40 percent Medicare	Over 40 percent Medicare	0-9.9 percent Medicare	10-40 percent Medicare	Over 40 percent Medicare
Current system (COBRA)	\$1,166,211	\$34,927	\$59,376	\$221,861	\$279,991	\$255,699	\$314,356
<b>COBRA alternative systems (1)</b>							
A. Ceiling at 112 percent; flat rate at 105 percent of mean urban or rural freestanding ROC; freestanding plus 50 percent for hospital-based homes; capital costs passed through	1,142,333 (-2.0)	35,537 (1.7)	59,296 (-0.1)	221,852 (0.0)	260,236 (-7.1)	251,486 (-1.6)	313,926 (-0.1)
B. Ceiling at 112 percent; flat rate at 105 percent of mean urban or rural ROC of all homes; capital costs passed through	1,161,387 (-0.4)	33,495 (-4.1)	58,964 (-0.7)	221,601 (-0.1)	277,531 (-0.9)	255,428 (-0.1)	314,369 (0.0)
C. Ceiling at 112 percent; flat rate at 105 percent of mean urban or rural ROC and capital costs of all homes; hold-harmless provision	1,164,089 (-0.2)	33,779 (-3.3)	58,976 (-0.7)	221,516 (-0.2)	279,905 (-0.03)	255,622 (-0.03)	314,290 (-0.02)
D. Same as the current system, except use percent Medicare (i.e., ceiling for $\geq 10$ percent Medicare and flat rate for $< 10$ percent Medicare facilities)	1,195,782 (2.5)	35,511 (1.7)	59,376 (0.0)	221,829 (-0.01)	316,174 (12.9)	249,051 (-2.6)	313,842 (-0.2)

NOTES: COBRA alternative system 1 is a partially prospective system. Facilities with  $\geq 1,500$  Medicare days (or  $\geq 10$  percent Medicare for alternative D) are paid under a ceiling calculated at 112 percent of mean urban or rural freestanding routine operating costs. Hospital-based homes receive 50 percent of the difference between mean freestanding and hospital-based homes' costs. Capital costs are passed through in alternatives A and B. In alternatives C and D, capital costs are included in the flat rate. Facilities with  $< 1,500$  Medicare days (or  $< 10$  percent Medicare for alternative D) are paid a flat rate. Numbers in parentheses indicate percent difference in cost of proposed alternative and the current system (COBRA). COBRA is Consolidated Omnibus Budget Reconciliation Act. ROC is routine operating costs.

SOURCE: The Urban Institute nursing home simulation model estimates.

surprisingly, hospital-based facilities are worse off under this policy and freestanding facilities better off than under alternative A. Under COBRA alternative B, capital costs are reimbursed on a cost basis.

COBRA alternative C is identical to B except that capital costs are included in the flat-rate calculation and paid on a prospective basis. Inclusion of capital costs has a very small effect on program outlays and results in slightly higher revenues for low-participating Medicare homes. COBRA alternative C differs from current policy in that the latter includes a hold-harmless provision, whereby no nursing home could be worse off. That is, a facility whose costs are above the flat rate could choose to be reimbursed on a cost basis. This results in slightly higher payments, compared with alternative B, to low-volume hospital-based and freestanding facilities.

COBRA alternative D sets the flat rate at the same level but offers it to facilities with less than 10 percent Medicare-covered days rather than facilities with fewer than 1,500 days. The intent is to encourage facilities with a low share of Medicare patients rather than a low volume of absolute days. A large facility, for example, might have more than 1,500 days, but less than 10 percent Medicare patients, and not receive a flat rate under current policy. If the flat rate is set based on facilities with less than 10 percent Medicare

patients, however, such a facility would receive an incentive and could expand access. Conversely, a small facility with fewer than 1,500 days could receive the incentive payment but may find it very difficult to expand because of its limited capacity. The simulation shows that this arrangement would increase costs by about 2.5 percent or \$29 million. Outlays increase because more facilities would be offered the flat rate; for the same reason, the access-increasing incentives are greater under this arrangement.

### Discussion

The current COBRA system was intended to expand Medicare participation of low-utilization facilities by providing a clear profit incentive. But it is not clear that this system contains sufficiently strong incentives to encourage access for Medicare patients in general. The COBRA alternative, which offers a flat rate to those facilities with less than 10 percent Medicare patient days, would do more to promote access than existing policy because it would apply to more facilities. However, many facilities with low Medicare participation are not staffed to care for patients requiring skilled services. It would require a major change in the orientation of these nursing homes to permit them to care for Medicare patients. At the



Table 3

**Summary results of proposed flat-rate reimbursement system options, 1988 dollars in thousands, and percent change in payments from current system**

Reimbursement system	All facilities	Hospital-based			Freestanding		
		0-9.9 percent Medicare	10-40 percent Medicare	Over 40 percent Medicare	0-9.9 percent Medicare	10-40 percent Medicare	Over 40 percent Medicare
Current system (COBRA)	\$1,166,211	\$34,927	\$59,376	\$221,861	\$279,991	\$255,699	\$314,356
<b>Alternative flat-rate system options</b>							
A. Flat rate at 112 percent; freestanding plus 50 percent	1,233,080 (5.7)	38,329 (9.7)	63,797 (7.4)	224,109 (1.0)	290,155 (3.6)	282,970 (10.6)	333,720 (6.2)
B. Flat rate at 100 percent; freestanding plus 50 percent	1,145,789 (-1.8)	35,293 (1.0)	59,251 (-0.2)	210,384 (-5.2)	267,280 (-4.5)	262,217 (2.5)	311,365 (-1.0)
C. Flat rate at 112 percent by percent Medicare; freestanding plus 50 percent	1,236,035 (6.0)	33,674 (-3.6)	59,990 (1.0)	235,813 (6.3)	276,886 (-1.1)	273,823 (7.1)	355,849 (13.2)
D. Flat rate at 100 percent by percent Medicare; freestanding plus 50 percent	1,148,433 (-1.5)	31,136 (-10.9)	55,852 (-5.9)	220,834 (-0.5)	255,434 (-8.8)	254,053 (-0.6)	331,123 (5.3)
E. Flat rate at 112 percent by percent Medicare; freestanding plus 25 percent	1,204,873 (3.3)	31,071 (-11.0)	54,478 (-8.2)	212,766 (-4.7)	276,886 (-1.1)	273,823 (7.1)	355,849 (13.2)
F. Flat rate at 100 percent by percent Medicare; freestanding plus 25 percent	1,120,610 (-3.9)	28,812 (-17.5)	50,931 (-14.2)	200,256 (-9.7)	255,434 (-8.8)	254,053 (-0.6)	331,123 (5.3)

NOTES: A flat-rate system is a prospective system. Facilities are paid a flat rate calculated at various percents of mean urban or rural freestanding routine operating costs. Separate flat rates by the 3 percent Medicare categories are calculated for Options C through F. Hospital-based homes receive 50 percent (or 25 percent for Options E and F) of the difference between mean freestanding and hospital-based homes' costs. Capital costs are passed through. Numbers in parentheses indicate percent difference in cost of proposed alternative and the current system (COBRA). COBRA is Consolidated Omnibus Budget Reconciliation Act.

SOURCE: The Urban Institute nursing home simulation model estimates.

same time, the current policy does nothing to increase the incentives for greater participation on the part of those nursing homes already providing a considerable amount of care to Medicare patients. These facilities may be far better staffed and thus more likely to increase participation; but under current arrangements, they may be losing money on Medicare patients.

The current COBRA system has relatively weak cost-containment incentives. The incentives come from the flat-rate payment to low-volume Medicare facilities, thereby incorporating the efficiency incentives inherent in such arrangements. Cost-containment incentives on higher-volume facilities, which account for the bulk of Medicare-covered days, come only by limiting reimbursement to 112 percent of the mean costs of freestanding facilities, plus the add-on for hospital-based nursing homes. The COBRA system, like DEFRA, makes no provision to increase ceilings for higher-volume facilities; these facilities will suffer losses if they employ additional resources in the provision of care. The COBRA system is more expensive than the DEFRA arrangement because it incorporates a hold-harmless provision; thus no one can receive lower payments, but some can receive more. (The hold-harmless provision means that a facility cannot receive less than its actual costs.)

The COBRA reimbursement system has no case-mix adjustment. Many if not most of the patients who

could potentially enter SNF's because of the hospital PPS system are thought to be very sick. Without a case-mix adjustment, there is limited incentive for nursing homes to admit these patients. The cost of caring for these patients will frequently be greater than the nursing home's average costs on which they are reimbursed. Furthermore, if those sicker patients are admitted, and the facility is not reimbursed at a level commensurate to the costs of providing care to these patients, quality of care could possibly suffer.

The COBRA system adds only slightly to administrative complexity because the program must compute the flat rates, a relatively simple procedure. However, COBRA incorporates inequities in its treatment of different facilities. Nursing homes with less than 1,500 days can be paid on the basis of a flat rate that exceeds, in some cases by a considerable amount, the cost reimbursement paid to nursing homes that provide more than 1,500 days. Thus, nursing homes that have indicated a much greater willingness to participate in the Medicare program are actually reimbursed less and allowed considerably less profit than nursing homes that provide fewer days.

### Prospective flat rate

The next set of simulations, shown in Table 3, illustrate several alternatives based on prospective flat-rate principles. Under these arrangements,

facilities are paid the same rate, regardless of their cost experience. The options include setting the flat rate at 112 percent or 100 percent of the underlying distribution of costs. All the simulations include provisions for paying hospital-based facilities at either 25 or 50 percent of the difference between the rates for freestanding facilities and those for hospital-based facilities, calculated as described earlier. Thus, for example, if 112 percent of the average daily costs of freestanding facilities is \$60 and the corresponding value for hospital-based facilities is \$80, the hospital-based per diem rate would be either \$65 or \$70. The first two options make no case-mix adjustment. The last four alternatives incorporate rates that increase with the level of Medicare participation.

The argument in favor of flat rates is that they provide strong efficiency incentives. Medicare's prospective payment system for hospitals essentially incorporates the strong profit-loss incentives of flat rates. For many facilities (those with costs below the flat rate), it could also increase access for Medicare patients. The disadvantage of this approach for Medicare nursing home payment is that it would result in very large gains and losses in all nursing homes in comparison with the current system. In addition, because we know little about measuring case mix and the quality of care provided, the gains and losses may not reflect efficiency or inefficiency but may, in fact, result in underpayment of facilities providing either high-quality care or care to sicker patients, and overpayment to nursing homes providing lower quality of care or to those with lighter patient-care loads.

### Simulation results

The simulations show that flat-rate systems greatly alter the distribution of Medicare dollars. The first option of a flat rate at 112 percent without a case-mix adjustment would be very expensive, increasing Medicare payments by 5.7 percent. Because of the way the flat rates are set, all types of facilities are, on the average, better off. Hospital-based facilities with less than 40 percent Medicare patients gain significantly relative to current law because large numbers of these facilities have costs that would be below the flat rate. Those with more than 40 percent would gain only slightly because costs for many more of these facilities were in excess of the flat rate. Freestanding facilities with less than 10 percent Medicare participation would gain because the flat rate is higher than that provided under DEFRA. Other freestanding facilities would gain under this arrangement because the flat rate would be set at a high level relative to their costs.

Setting the flat rate at 100 percent of the underlying cost distribution (option B) would result in lower revenues for all facilities. There are relatively few gainers in comparison with the COBRA arrangement. Freestanding facilities with less than 10 percent Medicare-covered days lose substantially under this system because the flat rate is less than under

COBRA. All nursing homes with more than 40 percent Medicare-covered days, particularly hospital-based facilities, would lose relative to current law. This is a highly undesirable feature of this system because these facilities provide a large amount of care to Medicare patients.

Many of these results change if the flat rates are adjusted for case mix. Because no case-mix measure is readily available, nursing homes could be grouped on the basis of the percent of total patient days attributable to Medicare patients. For example, a three-part grouping of less than 10 percent, 10-40 percent, and more than 40 percent Medicare-covered days has been proposed. Facilities would be grouped by percent of Medicare as well as, perhaps, by urban or rural and hospital-based or freestanding. A rate for each group would be established based on the costs for each group; and the nursing homes would be reimbursed on the basis of that rate, regardless of their actual cost experience. (Because many large facilities may have many Medicare patients for whom the marginal cost of care exceeds the average facility cost, those with more than 7,000 Medicare patient days might be included with the facilities with more than 40 percent coverage. This alternative is not included in the simulations.)

This approach provides considerable relief to high-volume facilities, both hospital-based and freestanding. As expected, high-volume facilities become substantial gainers, relative to current policy, when flat rates are based on 112 percent of the mean of the costs of each group. Those with less than 10 percent Medicare-covered days do substantially worse because their flat rate is based on the cost experience of facilities with less than 10 percent Medicare-covered days. Because these nursing homes have lower costs than nursing homes as a whole, their rates would be set at lower levels. Basing the flat rate on 100 percent of costs (option D), lowers the rates for all facilities. Nursing homes with less than 10 percent Medicare-covered days become large losers under such arrangements.

Reducing the hospital-based adjustment to 25 percent of the difference between the rates for freestanding and hospital-based facilities (Table 3, alternative E) has a substantial impact on hospital-based nursing homes. Instead of gaining under the flat-rate arrangement (as in option C), hospital-based nursing homes with more than 40 percent Medicare patients would become losers. Other hospital-based facilities lose even more. If the rate is then set at 100 percent of the underlying cost distribution (option F), hospital-based facilities become very large losers. Many of these nursing homes are equipped to provide care for sicker patients. These latter options would discourage their participation.

### Discussion

The advantage of flat-rate arrangements in general is that they incorporate the strong cost-containment incentives that have been incorporated in the hospital

prospective payment system. This system would also be extremely easy to administer. A relatively small number of rates would be established, and each nursing home would be reimbursed on the basis of the flat rate irrespective of its actual cost experience.

Flat rates, however, would have uncertain effects on access for Medicare patients. If the rates were set sufficiently high, many nursing homes could profit considerably. Nursing homes would be encouraged to admit more Medicare patients if the flat rate exceeded the average costs of caring for Medicare patients in those facilities. For many facilities, the flat rates would be less than both their costs and current payment rates, and participation would be likely to decline. Facilities with costs above the flat rates are likely to be those now most likely to participate. The net effect clearly depends on the level of the rates.

Flat-rate systems also would not encourage nursing homes to admit relatively heavy-care Medicare patients. The sicker or more impaired the patient, the greater the costs of caring for the patient. Because rates do not vary with case mix, nursing homes can be expected to seek to admit relatively healthy Medicare patients. The system also may have adverse effects on quality. Once the patient is admitted, the nursing home has an incentive to provide only the minimum amount of care. The system thus provides strong incentives to admit Medicare patients but little incentive to incur the resource costs necessary to provide for them.

Flat rates could be cost saving, depending on the level at which they are set. However, such payment systems also have the potential to increase program expenditures because many facilities would be paid well above current costs and thus current reimbursement levels. Obviously the lower the rate, the weaker the incentives for access and quality and the stronger the cost-containment incentives.

Flat-rate systems in which rates vary with percent of Medicare patients in a facility would continue to have strong cost-containment incentives. They should also improve access for Medicare patients. All facilities with costs below the flat rate could earn a profit by admitting more Medicare patients, and the more Medicare patients the higher the rate. Facilities that already serve a high volume of Medicare patients would be encouraged to admit even more because the rates would be higher for those with a high percentage of Medicare patients. In some cases, however, these flat rates could be below current reimbursement levels or facility costs and discourage access. The system may encourage access to some extent even for heavy-care Medicare patients. The system would also encourage or provide for equal treatment of patients with similar needs. That is, facilities serving similar kinds of patients would receive similar rates. Like any other flat-rate arrangement, this system would have relatively weak quality incentives. Finally, program expenditures are likely to increase under such an arrangement because, for many facilities, the flat rate would be higher than reimbursement rates under a cost-based arrangement.

## Prospective facility-specific

The next set of options (Table 4) are facility-specific prospective systems. These options incorporate reasonably strong efficiency incentives, particularly if rebasing (i.e., establishing rates on the basis of new cost data) is relatively infrequent. They also are more reflective of the underlying costs of each nursing home. Although, as noted above, it is difficult to measure case mix and quality of nursing home care, particularly for Medicare patients, this system would minimize the large gains and losses that can occur under flat-rate arrangements. Facility-specific prospective systems would pay less for the lower cost nursing homes than flat-rate approaches, because rates would reflect the facility's own costs rather than average costs for all nursing homes. Thus, facility-specific arrangements tend to be less costly than flat-rate approaches. Alternatively, for the same level of program expenditures, ceilings could be increased and the system could pay a higher share of the costs of more expensive nursing homes. This is desirable if these more expensive nursing homes are treating sicker patients or provide higher quality care. It is undesirable if they do not.

## Simulation results

The simulations shown in Table 4 differ in setting the ceiling at either 112 percent or 125 percent of the underlying cost distribution. All simulations reflect favorable treatment of hospital-based facilities, either by setting the ceiling on facility-specific rates at 50 percent of the difference between the ceiling for freestanding facilities and that for hospital-based facilities or at 25 percent. The first two options (A and B) do not include a percent Medicare adjustment. The latter four incorporate such an adjustment in an attempt to reflect case mix.

The first option (A) would establish the ceiling at 112 percent of the difference between ceilings for freestanding and hospital-based facilities, with higher ceilings for hospital-based facilities. This arrangement would be about \$52 million less costly than the current policy (about 4.4 percent). This occurs for two reasons. First, it is a prospective system and, therefore, reimbursement rates would be less than actual cost experience for many nursing homes. In addition, the COBRA flat-rate incentives given to low-volume Medicare facilities would be eliminated. Thus, the largest losers under this approach, relative to current law, are the low-volume, hospital-based and freestanding facilities. The latter are especially large losers simply because they were large winners under COBRA. Increasing the ceiling to 125 percent (option B) reduces the losses to the low-volume facilities to some extent and provides substantial relief to high-volume Medicare (over 40 percent) facilities, both hospital-based and freestanding. Increasing the ceiling to 125 percent would still cost 2 percent less than current policy.

**Table 4**

**Summary results of proposed facility-specific reimbursement system options, 1988 dollars in thousands, and percent change in payments from current system**

Reimbursement system	All facilities	Hospital-based			Freestanding		
		0-9.9 percent Medicare	10-40 percent Medicare	Over 40 percent Medicare	0-9.9 percent Medicare	10-40 percent Medicare	Over 40 percent Medicare
Current system (COBRA)	\$1,166,211	\$34,927	\$59,376	\$221,861	\$279,991	\$255,699	\$314,356
<b>Facility-specific prospective system options</b>							
A. Ceiling at 112 percent; freestanding plus 50 percent	1,114,389 (-4.4)	33,576 (-3.9)	59,333 (-0.1)	221,419 (-0.2)	241,893 (-13.6)	245,651 (-3.9)	312,517 (-0.6)
B. Ceiling at 125 percent; freestanding plus 50 percent	1,142,669 (-2.0)	34,202 (-2.1)	61,150 (3.0)	232,067 (4.6)	246,865 (-11.8)	248,427 (-2.8)	319,958 (1.8)
C. Ceiling at 112 percent by percent Medicare; freestanding plus 50 percent	1,120,533 (-3.9)	31,740 (-9.1)	57,096 (-3.8)	229,940 (3.6)	238,295 (-14.9)	244,030 (-4.6)	319,413 (1.6)
D. Ceiling at 125 percent by percent Medicare; freestanding plus 50 percent	1,149,339 (-1.4)	32,972 (-5.6)	59,550 (0.3)	240,420 (8.4)	244,103 (-12.8)	247,331 (-3.3)	324,962 (3.4)
E. Ceiling at 112 percent by percent Medicare; freestanding plus 25 percent	1,096,519 (-6.0)	30,097 (-13.8)	53,239 (-10.3)	211,426 (-4.7)	238,295 (-14.9)	244,030 (-4.6)	319,431 (1.6)
F. Ceiling at 125 percent by percent Medicare; freestanding plus 25 percent	1,127,221 (-3.3)	31,571 (-9.6)	56,056 (-5.6)	223,197 (0.6)	244,103 (-12.8)	247,331 (-3.3)	324,962 (3.4)

NOTES: Under a facility-specific prospective system, facilities are paid up to a ceiling calculated at 112 percent or 125 percent of mean urban or rural freestanding routine operating costs. Separate ceilings by the 3 percent Medicare categories are calculated for Options C, D, E, and F. Hospital-based homes receive 50 percent (or 25 percent for Options E and F) of the difference between mean freestanding and hospital-based homes' costs. Capital costs are passed through. Numbers in parentheses indicate percent difference in cost of proposed option and the current system (COBRA). COBRA is Consolidated Omnibus Budget Reconciliation Act.

SOURCE: The Urban Institute nursing home simulation model estimates.

The third option (C) would establish the facility-specific ceilings for three different groups of percent Medicare days. Under a policy that sets ceilings at 112 percent of the mean of costs of each group, low-volume facilities would be substantially worse off relative to current law. This occurs for two reasons. First, the COBRA incentives are eliminated and, second, their ceilings are based on the costs of facilities with low percentages of Medicare days. Because these facilities have lower costs, the ceilings that result are therefore lower. This arrangement provides considerable fiscal relief to facilities with more than 40 percent Medicare days. Hospital-based facilities, for example, gain by 3.6 percent. Facilities with between 10 and 40 percent Medicare days lose under this arrangement because their rates are based on their own cost experience.

The fourth option (D) would increase the ceiling to 125 percent. This would reduce the losses of the low-volume Medicare-certified facilities by a small amount and would provide even more relief to the high-volume Medicare-certified facilities. Nursing homes with between 10 and 40 percent Medicare patients also do substantially better. Reducing the ceiling for hospital-based facilities by setting it at 25 percent of the difference between ceilings for freestanding and hospital-based facilities (E and F) would reduce payments, as expected, to the level of those for hospital-based nursing homes, particularly those with a large volume of Medicare patients.

**Discussion**

Prospective facility-specific arrangements have the potential to provide strong cost-containment incentives at lower overall program costs than do flat-rate arrangements. They can have weaker cost-containment incentives, however, because the rates are tied to facilities' costs in the base year; the opportunity for profits, therefore, can be limited.

Over the long run, the incentives for cost containment depend on how frequently rates are rebased. Rebasing can have very important implications for cost containment and for other objectives. Essentially, the more frequent the rebasing, the weaker the cost-containment incentives. In effect, facilities that increase their costs in the current period incur a loss but receive a high reimbursement rate in the future. Conversely, facilities that control their costs in the current period earn a profit but receive a lower reimbursement in the future. The less frequent the rebasing, the more the short- and long-term incentives are the same. Thus, with infrequent rebasing (e.g., every 3 to 5 years) a facility-specific prospective system can have fairly strong cost-containment incentives.

The incentives for improved access for Medicare patients also depend on the frequency of rebasing. Nursing homes that increase costs in order to serve Medicare or heavy-care patients are likely to incur losses; that is, costs will rise above the prospective

rate and the facility will continue to have losses until rebasing occurs. Conversely, facilities will gain from admitting less costly patients. If rebasing is infrequent, access incentives, both for Medicare beneficiaries and heavy-care patients specifically, may be relatively weak. The more frequent the rebasing, the more the incentives approach those of DEFRA, where access for Medicare patients is not encouraged but at least not discouraged. Facility-specific systems could reduce program outlays enough, in comparison with alternatives, to permit higher ceiling rates. This could permit facilities serving more Medicare patients and more costly patients to avoid losses under the system and thereby increase access. Access incentives in general will improve if separate ceilings for facilities, grouped by percent Medicare days, are employed; facilities with higher costs because of more impaired patients receive higher reimbursement rates and are less likely to limit Medicare participation.

This payment system can also have adverse effects on the quality of care. The nursing home has no incentive to increase the resources directed to patient care. In fact, the facility can gain by reducing the resources devoted to patient care once the rate has been set. The quality implications, as in the case of cost-containment implications, are related to the frequency of rebasing. In general, the more frequent the rebasing, the greater the incentives for higher quality. The quality incentives also improve when separate ceilings are established by extent of Medicare participation; higher cost facilities have fewer incentives to cut back resources devoted to patient care.

Finally, these arrangements, even those with adjustments for percent Medicare days, are only slightly more complex administratively than the system currently in place. However, like DEFRA and COBRA, this system does not assure equal treatment of facilities serving similar kinds of patients; rather rates for facilities are heavily tied to their previous cost experience, which may vary considerably across nursing homes with similar kinds of cases.

### **Facility-specific reimbursement with adjustments**

The advantage of the facility-specific arrangements is that they provide substantially increased revenues to the large-volume Medicare participating facilities with little change in program cost. In addition, they can incorporate fairly strong efficiency incentives. The problem with these approaches, however, is that the low-volume Medicare participating facilities are much worse off than they were under COBRA. Because the intent of COBRA was to increase participation of the low-volume facilities in order to increase access for Medicare beneficiaries, this is a substantial disadvantage.

In order to retain positive aspects of facility-specific prospective systems and the access-increasing

incentives of COBRA, compromise arrangements have been considered. These would include paying the COBRA-type, flat-rate payments to low-volume Medicare facilities (defined as those with less than 10 percent Medicare days) and paying high-volume Medicare facilities on a facility-specific prospective payment basis. Under this arrangement, rates for facilities are based on percent Medicare (less than 10 percent, 10-40 percent, and more than 40 percent Medicare days), as under the facility-specific approaches described in Table 4.

### **Simulation results**

The effects of four such approaches are shown in Table 5. The first would set the ceiling or the flat rate for facilities with less than 10 percent Medicare days at 105 percent of the mean urban-rural routine operating costs and capital costs for all facilities. This approach would increase costs by 2.8 percent relative to COBRA. Freestanding facilities with less than 10 percent Medicare days would have an increase in revenues relative to COBRA of about 13 percent. This is because the flat rate applies to all facilities with less than 1,500 days. Both hospital-based and freestanding facilities with more than 40 percent Medicare days receive higher revenues because their ceilings are calculated on the basis of the cost experience of high-volume Medicare facilities. Low-volume, hospital-based homes are worse off because the flat rate is less than the actual cost experience for many homes. In addition, many hospital-based and freestanding facilities with between 10 and 40 percent Medicare days lose, relative to COBRA, under which they would have received an even higher flat rate.

Under alternative B, which differs only in that a hold-harmless provision is added, Medicare costs are increased by 3 percent. Under this approach, the low-volume, hospital-based facilities become small gainers.

To reduce the budget implications of this approach, the flat rate was set at 100 percent of the mean of urban-rural routine operating and capital costs of all facilities (alternative C). This alternative obviously had no effect on facilities with more than 10 percent Medicare days, but it did reduce payments intended for nursing homes with less than 10 percent Medicare days. Freestanding facilities with less than 10 percent Medicare days now receive 8.8 percent more than they would under COBRA, and hospital-based facilities receive 11.3 percent less.

The final alternative (D), including the hold-harmless provision, will increase Medicare costs by 2 percent and assure that no facilities are worse off. Under the hold-harmless provision, facilities with less than 10 percent Medicare participation receive either the flat rate or a facility-specific rate, whichever is greater.

**Table 5**  
**Summary results of proposed COBRA alternative reimbursement systems, 1988 dollars in thousands, and percent change in payments from current system**

Reimbursement system	All facilities	Hospital-based			Freestanding		
		0-9.9 percent Medicare	10-40 percent Medicare	Over 40 percent Medicare	0-9.9 percent Medicare	10-40 percent Medicare	Over 40 percent Medicare
Current system (COBRA)	\$1,166,211	\$34,927	\$59,376	\$221,861	\$279,991	\$255,699	\$314,356
<b>COBRA alternative systems (2)</b>							
A. Facilities with $\geq$ 10 percent Medicare are paid under the facility-specific prospective system with ceiling set at 112 percent of mean urban or rural freestanding ROC by percent Medicare; hospital-based homes receive 50 percent of the difference between freestanding and hospital-based homes' costs; facilities with < 10 percent Medicare are paid a flat rate set at 105 percent of mean urban or rural ROC and capital costs of all homes	1,198,580 (2.8)	32,103 (-8.1)	57,105 (-3.8)	229,940 (3.6)	315,970 (12.9)	244,030 (-4.6)	319,431 (1.6)
B. Same as alternative A, except hold-harmless provision for facilities with < 10 percent Medicare	1,202,192 (3.1)	35,511 (1.7)	57,105 (-3.8)	229,940 (3.6)	316,174 (12.9)	244,030 (-4.6)	319,431 (1.6)
C. Same as alternative A, except flat rate set at 100 percent of mean urban or rural ROC and capital costs of all homes	1,185,186 (1.6)	30,979 (-11.3)	57,101 (-3.8)	229,940 (3.6)	304,705 (8.8)	244,030 (-4.6)	319,431 (1.6)
D. Same as alternative C, except hold-harmless provision for facilities with < 10 percent Medicare	1,189,832 (2.0)	35,146 (0.6)	57,101 (-3.8)	229,940 (3.6)	304,184 (8.6)	244,030 (-4.6)	319,431 (1.6)

NOTES: The hold-harmless provision means that a facility receives the greater of the flat rate or its actual costs. Some facilities may be worse off relative to COBRA. Numbers in parentheses indicate percent difference in cost of proposed alternative and the current system (COBRA). COBRA is Consolidated Omnibus Budget Reconciliation Act. ROC is routine operating costs.

SOURCE: The Urban Institute nursing home simulation model estimates.

## Discussion

The advantage of this hybrid approach, relative to COBRA, is that it provides substantial relief to high-volume Medicare facilities that provide a large volume of the care to the sicker Medicare patients. (As noted, this financial relief might also be extended to facilities with Medicare-covered days in excess of a given threshold, even if they have fewer than 40 percent Medicare patients.) At the same time, it incorporates incentives for low-volume facilities, particularly freestanding nursing homes, to expand access to Medicare patients. This approach would also incorporate many other desirable features. Most nursing homes would be paid on a facility-specific prospective basis. The exception would be low-volume nursing homes that use the flat rate. Under either arrangement, there would be strong cost-containment incentives. Thus, this approach incorporates cost-containment incentives, it improves incentives for low-volume facilities to expand access for Medicare beneficiaries, and it provides initial relief to large-volume Medicare providers. These objectives are reached for a 2-percent increase in program costs compared with COBRA.

## Conclusion

A broad array of options for payment for skilled nursing home care in the Medicare program are examined in this article. The options range from cost-based reimbursement systems to a variety of prospective arrangements with and without case-mix adjustments. The sometimes conflicting objectives of the payment policies we reviewed include increasing access for Medicare patients to a market that is largely oriented toward private and Medicaid patients, increasing access for patients with intensive nursing and rehabilitative care needs, containing growth in costs, providing incentives to assure high-quality care or at least no incentive to minimize the quality of care, ensuring that reimbursement policy does not impose too great an administrative burden on nursing homes or the program itself, and ensuring that there be equity of treatment across facilities.

We have argued that cost-based reimbursement systems have both weak incentives for cost containment and inadequate incentives to improve access. Flat-rate arrangements have stronger incentives for cost containment, but in the absence of either very high rates or a satisfactory case-mix adjustment, they

are likely to result in poorer access for higher-cost patients. The incentives of these systems to minimize resources devoted to patient care are also of concern.

Facility-specific prospective arrangements contain considerable cost-containment incentives and at the same time give greater recognition to differences in case mix and quality among nursing homes. Because of the current difficulty in recognizing case mix and monitoring quality, we prefer some variant of the facility-specific prospective approach. We argue that facility-specific arrangements can be designed to have very strong cost-containment incentives through the timing of rebasing. Facility-specific arrangements, however, may not have sufficient incentives to improve access for Medicare patients to the nursing home market because the marginal costs of Medicare patients will exceed average facility costs. Therefore, the current HCFA proposal to pay a flat rate to facilities with less than 10 percent Medicare days may go far toward meeting this objective. These facilities would have significant profit incentives to increase their level of Medicare participation.

Further improvements in Medicare nursing home reimbursement policy await the development of case-mix measures that can be successfully incorporated into a payment policy. This may be possible in the not too distant future (Fries et al., 1987). This would then permit development of adjusted case-mix, flat-rate

arrangements, such as hospital diagnosis-related groups, with their inherently greater cost-containment and access-improving characteristics. It must be noted, however, that such arrangements, even with case-mix adjustments, would greatly increase the burden for quality assurance on other mechanisms.

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