Medicaid payment policies for nursing home care: A national survey

This research gives a comprehensive overview of the nursing home payment methodologies used by each State Medicaid program. To present this comprehensive overview, 1988 data were collected by survey from 49 States and the District of Columbia. The literature was reviewed and integrated into the study to provide a theoretical framework to analyze the collected data. The data are organized and presented as follows: payment levels, payment methods, payment of capital-related costs, and incentives in nursing home payment. We conclude with a discussion of the impact these different methodologies have on program cost containment, quality, and recipient access.

Introduction

During 1990, an estimated $54.5 billion, or 8.4 percent of total national health expenditures, was spent on nursing home care in the United States (Division of National Cost Estimates, 1987). Dissecting this total expenditure of $54.5 billion, $28 billion (or 51.3 percent) came from the patients or their families as direct private payments, and $22.1 billion (or 40.6 percent) came from the State Medicaid programs. Private health insurance and the Medicare program combined paid less than 3 percent of the Nation’s 1990 nursing home bill. Without question, Medicaid programs are the largest third-party payer of nursing home care in the United States. Although Medicaid programs provided over 40 percent of the Nation’s nursing home expenditures in 1990, Medicaid payments can contribute a significantly larger percentage of revenues to individual nursing home providers. For example, during 1988, Medicaid payments amounted to 61 percent of the revenues of Beverly Enterprises, the largest nursing home chain in the United States (Standard and Poor’s, 1989). Medicaid payment rates, policies, and coverage have a major impact on the nursing home care provided in this country.

Payment trends

Medicaid payment policy for nursing home care has continuously evolved since the program was initiated in 1965. The original Medicaid statute did not specify a payment methodology for the programs to use to pay for nursing home care. States were free to design and implement their own methodologies, within the Federal mandate that payments should not “exceed reasonable charges consistent with efficiency, economy, and quality of care” (Commerce Clearing House, 1981). Congress became concerned in the early 1970s that the lack of uniformity in Medicaid payment policies could result in some States paying too much for care and other States paying too little to allow the delivery of good quality care. In 1972, Congress amended the Social Security Act to require that effective July 1, 1976, all State Medicaid programs must pay nursing homes on a reasonable cost-related basis (Public Law 92-603, section 249).

This law, however, was viewed by many State programs not only as inflationary but also as restricting their ability to develop payment systems that would encourage provider efficiency (Buchanan, 1987). The Omnibus Reconciliation Act of 1980 (Public Law 96-499) eliminated the Federal mandate that required States to use reasonable cost-related payment for nursing home care. This legislation allowed the Medicaid programs to develop less costly methodologies, with the Federal requirement that these new plans must be “reasonable and adequate” to pay the costs of an efficiently administered nursing home complying with Federal and State quality and safety standards. In June 1990, the U.S. Supreme Court ruled that hospitals and nursing homes may sue States in Federal court to guarantee reasonable and adequate Medicaid payment (Greenhouse, 1990). Although a financial victory for the providers of care to Medicaid recipients, this ruling will enhance the fiscal strains facing most Medicaid programs.

Focusing on specific components of Medicaid payment methodologies for nursing home care, a number of trends have emerged since the program’s inception. In an effort to contain program expenditures, one major trend has been towards the use of prospective ratesetting rather than cost-based, retrospective payment systems. At least 21 States used a form of retrospective payment for skilled care, and at least 17 used retrospective payments for intermediate care during 1975 (Buchanan, 1987). By 1988, as few as nine programs used a form of retrospective ratesetting.

An emerging trend in capital-cost payment has been the adoption of a fair-rental system by many Medicaid programs (Grimaldi and Jawziewski, 1987). A fair-rental system pays an imputed rent to nursing homes for the residential-related services provided to Medicaid patients. These fair-rental systems are intended to overcome the inflationary incentives of cost-based payment of property-related expenses.

Another major trend in Medicaid payment for nursing home care that is currently emerging is case-mix payment systems. Flat-rate and prospective payment systems discourage nursing homes from accepting Medicaid patients with heavy-care needs, because the level of Medicaid payment does not increase as care needs increase. A case-mix payment system adjusts the Medicaid payment to reflect the patients’ care needs (Adams and Schlenker, 1986; Nyman, Levey, and Rohrer, 1987; Cameron, 1985). Preliminary results of a
survey of the Medicaid programs indicate that as many as 19 States were using some form of case-mix payment during March 1990.1

Diversity of payment methodologies

Each State has flexibility in establishing its own payment methodologies and in calculating payment rates for nursing home care (U.S. General Accounting Office, 1983). Public Law 96-499, section 962, requires only that Medicaid payments for nursing home care must be "reasonable and adequate to meet the costs which must be incurred by efficiently and economically operated facilities" complying with Federal and State quality and safety standards. Within this broad "reasonable and adequate" Federal standard, each State sets its own payment rates and determines how these payments may be limited, which costs are allowable, how property-related expenses are paid, and if the payment system includes any incentives. As a result, each State has developed a unique payment system, with many payment-related variables, to pay for the nursing home care Medicaid recipients receive.

Given this diversity among the States, and the range of payment and cost-related factors to be studied, there is a large body of literature on the issues relating to nursing home costs and Medicaid payment of these costs. Many studies, particularly in the early 1980s, focused on analyses of variances in nursing home costs among facilities. For example, a 1980 study reviewed previous research focusing on nursing home costs, concluding that provider and service characteristics are associated with differences in the average cost of care (Bishop, 1980). A 1981 study analyzed the determinants of nursing home operating costs and concluded that facility characteristics, particularly facility type and ownership, were important variables explaining cost variation. Non-profit nursing homes had higher costs than profit-seeking facilities (Birnbaum et al., 1981a). This same research concluded that private-pay patients subsidize the cost of care received by Medicaid patients. In a 1983 study of nursing home operating costs in New York State, the authors concluded that type of ownership was among the most significant and important variable in explaining operating cost variation (Lee and Birnbaum, 1983).

A 1982 study analyzed nursing home costs using data from the 1973-1974 National Nursing Home Survey (Meiners, 1982). This study concluded that economies of scale exist in the delivery of nursing home care and that the profit motive is an important incentive for cost containment. In addition, this study expanded on these cost analyses to look at the impact Medicare and Medicaid payment policies had on the costs of care. The major conclusion was that flat-rate and prospective-rate systems were associated with significantly lower costs of care compared with cost-based systems and to the incentives of private financing.

Other studies moved away from general analyses of factors affecting variations in operating cost among nursing homes to focus on the impact specific Medicaid policies have on nursing home payment. A 1988 study analyzed the impact forms of prospective and retrospective payment had on Medicaid payment rates between 1978 and 1986, concluding that States using prospective-class payment had significantly lower payments for 1982 through 1986 (Swan, Harrington, and Grant, 1988). Other studies have confirmed this association of prospective-payment methods with lower Medicaid payments for nursing home care (Buchanan, 1983; Buchanan, 1987). Additional studies evaluated approaches to the payment of the capital-related costs of providing nursing home care (Cohen and Holahan, 1986; Baldwin and Bishop, 1984). Other studies have addressed a broader range of issues relating to Medicaid payment for nursing home care, but a limited number of States for case studies were used (Holahan and Cohen, 1987; Holahan, 1985). The purpose of this article is to address a broad range of issues relating to nursing home payments, giving a comprehensive overview of the payment systems used by each State.

Data collection

To obtain information on the Medicaid payment systems used to pay for nursing home care, the States were surveyed by mail beginning August 1988. The survey instrument contained 30 questions relating to Medicaid payments, payment methodologies, allowable costs, capital-related expenses, and incentives. By February 1989, 46 States had completed the questionnaire. Summary tables were prepared, based on these responses, and mailed back to the States in May 1989 (including those not responding) for verification, corrections, and updates. After additional mailings to States not responding to the survey, 49 States and the District of Columbia participated in the study and provided the requested data.

Prior to January 1, 1989, the Arizona Long-Term Care System (ALTCS) provided long-term care services to recipients through program contractors, who received a capitation payment for the provision and coordination of all institutional and non-institutional long-term care. Most nursing home payments were made by these program contractors and not by ALTCS directly. Because the Arizona Medicaid program did not directly pay for nursing home care during 1988, it is not included in this study.

These data are organized and presented as follows: payment levels, payment methods, payment of capital-related costs, and incentives in nursing home payment. In addition to the narrative, tables are presented that summarize the responses to the survey.

Payment levels

This section of the questionnaire requested information from the States on various aspects of 1988 and 1987 per diem payments for care provided by skilled nursing facilities (SNFs) and intermediate care facilities (ICFs).

Table 1 summarizes these payment-rate-related responses.
Payments

During the survey, the Medicaid programs were asked to list average per diem payments for the care Medicaid patients received at SNFs and ICFs. The average per diem payment for skilled care was $60.65 per day during 1988 and $58.24 per day during 1987 for the 47 States supplying data. The 1988 average per diem payment for skilled care represented an increase of only 4.14 percent over the average per diem payment for 1987. The average per diem payment for intermediate care was $46.03 per day in 1988 and $44.64 per day in 1987, representing an increase of only 3.11 percent. As Table 1 illustrates, during 1988, 10 programs used the same level of payment to pay both SNFs and ICFs.

The average Medicaid per diem payments for skilled care and intermediate care presented in Table 1 document wide differences among the States. The lowest average per diem payment for skilled care during 1988 was $33.72 per day for Arkansas, compared with the highest average payment of $176.29 per day for Alaska. The 1988 average per diem payment for skilled care in California was only $50.14, but for neighboring Nevada and Oregon, it was $64.50 and $69.62 per day, respectively. Another example of differences in payment amounts among contiguous States is that of Illinois, with an average per diem payment of only $46.35 during 1988, and Indiana and Iowa, with average per diem payments of $61.01 and $76.18 per day, respectively. The different payment methodologies used by the Medicaid programs to calculate payments to nursing homes can explain some of this variation in payment levels among the States (Swan, Harrington, and Grant, 1988; Holahan and Cohen, 1987; Holahan, 1985). The earlier studies focusing on variations in operating costs among nursing homes also found that the level of input prices affected levels of operating costs (Birnbaum et al., 1981a). In another study, Buchanan (1987) discovered that differences in the cost of providing care in the States (measured by nursing home wage rates) explained much of these Medicaid payment variations. He also found that political ideology was associated with the level of Medicaid payments for skilled care and intermediate care, with the more conservative States having lower payments than the more liberal ones.

Percent patient days

Although each Medicaid program pays for care provided by both SNFs and ICFs, the placement of Medicaid patients in these two types of nursing home care varies widely among the States. Table 1 presents the number of Medicaid patient days in SNFs as a percent of total Medicaid nursing home days (Medicaid paid days in SNFs plus Medicaid paid days in ICFs) for each State during 1987. In California, SNFs were paid for more than 95 percent of the total Medi-Cal patient days in nursing homes during 1987. In contrast, SNFs were paid for only about one-tenth of 1 percent of total Medicaid nursing home days in New Hampshire during 1987. For the 48 States and the District of Columbia with available data, SNFs were paid for an average of 23.65 percent of the total Medicaid nursing home days.

These disparities among the States in SNF and ICF utilization levels by Medicaid recipients raise questions about the meaning of these SNF and ICF definitions across States. As a result, many States are paying both SNFs and ICFs for care provided to Medicaid recipients with the same payment level (Table 1). The SNF and ICF utilization disparities among States also raise questions about the appropriateness of the level of nursing home care many Medicaid recipients receive across States. Do the health conditions of Medicaid recipients in Arkansas, California, Connecticut, New York, and Wisconsin differ enough from the conditions of Medicaid patients in Iowa, Kansas, Louisiana, Montana, New Hampshire, and Alabama to justify the sharply different utilization rates of care provided by SNFs?

Private pay difference

Differences exist in the levels of payment by private patients and by the Medicaid programs for nursing home care. For example, studies have concluded that private patients, with their higher payments, subsidize the cost of care provided to Medicaid patients (Birnbaum et al., 1981a; Arling, Nordquist, and Capitman, 1987). To address this issue, respondents to the 1988 survey were asked to estimate the difference between the private payment and the Medicaid payment for both skilled care and intermediate care in their State during 1987. The questionnaire provided a series of dollar ranges (i.e., "$1.00-$5.00," "$6.00-$10.00," "$11.00-$15.00," "$16.00-$20.00," "$21.00-$25.00," "over $25.00," and "No difference") to assist the Medicaid programs in estimating these differences.

The responses indicate that large differences exist in most States between the per diem payments made by the Medicaid programs and those made by private patients. Table 1 presents the responses from the 45 States providing estimates. To calculate an average difference between private payments and Medicaid payments for skilled care and intermediate care for all States providing estimates, the midpoint of the selected dollar range (i.e., $3.00 for the $1.00-$5.00 range) was assigned to each State in the calculation of the mean. The average estimate of the difference between the level of payment from private patients and from the Medicaid programs was $11.98 per day for skilled care and $10.19 per day for intermediate care during 1987.

To gain additional perspectives on the differences between private payments and Medicaid payments for nursing home care, this same question was asked of the State affiliates of the American Health Care Association. Thirty-two of these State nursing home affiliates replied with usable data for 1987. The Medicaid programs in...
## Table 1

Average Medicaid per diem payments for nursing home care, by State and type of care

| State         | SNF payments per day | ICF payments per day | 1987 percent SNF of total patient days | 1987 estimate of per diem private pay difference | 1987 per diem capital component |
|---------------|----------------------|----------------------|----------------------------------------|-----------------------------------------------|-------------------------------|
|               | 1986                 | 1987                 |                                        |                                               |                               |
| Alabama       | $48.10               | $48.91               |                                        | $6.00–$10.00                                  | NA               |
| Alaska        | 176.29               | 162.57               |                                        |                                               | NA               |
| Arkansas      | 33.72                | 31.38                |                                        |                                               | $1.43            |
| California    | 50.14                | 47.60                |                                        |                                               | $1.22            |
| Colorado      | 49.10                | 46.34                |                                        |                                               | $1.22            |
| Connecticut   | 83.96                | 74.34                |                                        |                                               | $1.22            |
| Delaware      | 71.83                | 67.76                |                                        |                                               | $1.22            |
| District of Columbia | NA            | NA                  |                                        |                                               | NA               |
| Florida       | 56.97                | 53.46                |                                        |                                               | NA               |
| Georgia       | 56.74                | NA                  |                                        |                                               | NA               |
| Hawaii        | 107.54               | 105.66               |                                        |                                               | NA               |
| Idaho         | 49.51                | 47.20                |                                        |                                               | NA               |
| Illinois      | 46.35                | NA                  |                                        |                                               | NA               |
| Indiana       | 61.01                | 59.39                |                                        |                                               | NA               |
| Iowa          | 76.18                | 72.90                |                                        |                                               | NA               |
| Kansas        | 44.93                | 40.70                |                                        |                                               | NA               |
| Kentucky      | 51.56                | 48.97                |                                        |                                               | NA               |
| Louisiana     | 42.62                | 40.80                |                                        |                                               | NA               |
| Maine         | 85.45                | 81.39                |                                        |                                               | NA               |
| Maryland      | 57.57                | 57.57                |                                        |                                               | NA               |
| Massachusetts | 71.82                | 64.34                |                                        |                                               | NA               |
| Michigan      | 47.99                | 46.01                |                                        |                                               | NA               |
| Minnesota     | 61.04                | 55.76                |                                        |                                               | NA               |
| Mississippi   | 39.09                | 37.63                |                                        |                                               | NA               |
| Missouri      | 45.86                | 44.75                |                                        |                                               | NA               |
| Montana       | 49.21                | 48.24                |                                        |                                               | NA               |
| Nebraska      | 55.94                | 52.98                |                                        |                                               | NA               |
| Nevada        | 64.50                | 63.14                |                                        |                                               | NA               |
| New Hampshire | NA                   | 62.89                | 57.66                                  | Over 25.00                                   | NA               |
| New Jersey    | 69.81                | 66.19                | 58.47                                  |                                               | NA               |
| New Mexico    | 88.14                | 91.37                | 48.23                                  |                                               | NA               |

See footnotes at end of table.
Table 1—Continued

Average Medicaid per diem payments for nursing home care, by State and type of care

| State             | 1988 SNF payments per day | 1987 SNF payments per day | 1987 percent SNF of total patient days | 1987 estimate of per diem private pay difference | 1987 per diem capital component |
|-------------------|---------------------------|---------------------------|--------------------------------------|-----------------------------------------------|---------------------------------|
|                   | SNF                       | ICF                       | SNF                                  | ICF                                           | SNF                            | ICF                            |
| New York          | $92.86                    | $88.40                    | 76.760                               | NA                                            | NA                             | $6.10                          | $7.00                          |
| North Carolina    | 47.14                     | 45.66                     | 43.548                               | 6.00—10.00                                    | 11.00—15.00                    | NA                             | NA                             |
| North Dakota      | 51.58                     | 50.28                     | 51.654                               | 6.00—10.00                                    | 6.00—10.00                     | 3.92                           | 3.13                           |
| Ohio              | 59.46                     | 55.42                     | 62.790                               | 11.00—15.00                                   | 8.00—10.00                     | 3.85                           | 3.00                           |
| Oklahoma          | 50.60                     | 42.17                     | 0.407                                | 1.00—5.00                                     | 1.00—5.00                      | 4.74                           | 4.74                           |
| Oregon            | 69.62                     | 66.72                     | 3.499                                | 11.00—15.00                                   | 6.00—10.00                     | 5.58                           | 5.35                           |
| Pennsylvania      | 53.87                     | 48.57                     | 11.415                               | 11.00—15.00                                   | 11.00—15.00                    | 5.46                           | 5.15                           |
| Rhode Island      | 62.90                     | 58.85                     | 3.458                                | NA                                            | NA                             | 6.15                           | 2.45                           |
| South Carolina    | 49.77                     | 46.23                     | 44.944                               | 11.00—15.00                                   | 11.00—15.00                    | 3.59                           | 3.59                           |
| South Dakota      | 42.23                     | 40.76                     | 3.351                                | 6.00—10.00                                    | 6.00—10.00                     | NA                             | NA                             |
| Tennessee         | 59.33                     | 55.80                     | 7.981                                | 11.00—15.00                                   | 6.00—10.00                     | NA                             | NA                             |
| Texas             | 49.93                     | 47.72                     | 7.617                                | 6.00—10.00                                    | 6.00—10.00                     | 7.23                           | 7.23                           |
| Utah              | 51.21                     | 50.95                     | 4.172                                | 1.00—5.00                                     | 1.00—5.00                      | 3.21                           | 3.21                           |
| Vermont           | 57.24                     | 55.81                     | 1.407                                | 11.00—15.00                                   | 11.00—15.00                    | 4.72                           | 4.45                           |
| Virginia          | NA                        | 56.54                     | 4.978                                | 21.00—25.00                                   | 11.00—15.00                    | 8.80                           | 8.26                           |
| Washington        | 54.33                     | 48.49                     | 58.989                               | 6.00—10.00                                    | 6.00—10.00                     | 5.79                           | 5.79                           |
| West Virginia     | 53.75                     | 51.16                     | 59.403                               | 21.00—25.00                                   | 11.00—15.00                    | 10.75                          | 9.50                           |
| Wisconsin         | 51.78                     | 48.80                     | 95.061                               | 16.00—20.00                                   | 6.00—10.00                     | 4.63                           | 4.44                           |
| Wyoming           | 51.14                     | 50.05                     | 11.151                               | 6.00—10.00                                    | 3.00                           | 3.80                           | —                              |
| Average of all responses | $60.65               | $58.24                   | $46.03                          | $44.64                          | $23.65                          | $11.98                          | $10.19                          | $5.95                          | $5.33                          |

NOTES: SNF is skilled nursing facility; ICF is intermediate care facility; NA is not available; HRF is health-related facility. I, II, and III are ICF classes.

SOURCE: 1987 percent SNF of total patient days preceded by an asterisk are based on data from Health Care Financing Administration: Bureau of Data Management and Strategy, Office of Statistics and Data Management, Division of Medicaid Statistics; rest of data in table from Buchanan, R.J.: 1988 Medicaid Nursing Home Reimbursement Survey.
four of these States did not respond to this question, allowing comparisons of these estimates of payment differences between the Medicaid programs and the State nursing home affiliates in 28 States. The estimates of the differences between private payments and Medicaid payments made by the State affiliates and the Medicaid programs were remarkably similar for 1987. In 10 States, the estimates made by the Medicaid programs of the differences between Medicaid payments and private payments were identical to those made by the nursing home affiliates for both skilled care and intermediate care. In an additional six States, the Medicaid estimates of payment differences were the same as those of the State affiliates for either SNF care or ICF care, but not for both types of care. In eight States, the Medicaid estimates of differences between Medicaid payments and private payments were lower than the estimates of the affiliates for both skilled care and intermediate care. In four other States, the estimates of the Medicaid program were higher than those of the affiliates for both skilled care and intermediate care. In these 28 States, with estimates from both the Medicaid programs and the State nursing home affiliates of the differences between Medicaid payments and private payments, the average estimate from the Medicaid programs of the 1987 payment difference to SNFs was $11.41 per day, compared with the average estimate of $11.78 per day made by nursing home associations. The Medicaid programs estimated an average payment difference of $10.19 per day to ICFs in 1987, compared with an average estimate of $10.00 made by the nursing home affiliates.

Note that the Minnesota Medicaid program responded that "No difference" exists between the Medicaid level of payment and the rate charged to private-care patients for either skilled care or intermediate care. In Minnesota, by State law, the rate charged to private-pay patients cannot exceed the Medicaid level of payment for nursing home care. Equalization laws are an effective policy approach to the elimination of cross-subsidization. However, if the Medicaid level of payment is inadequate, then the range and quality of services all nursing home residents receive, not just Medicaid patients, would decline in a State using this equalization approach.

Capital component

Capital-related expenses are a significant component of total nursing home costs. Studies have projected these costs of depreciation, leases, and interest expenses at 13-15 percent of total costs of care (Grimaldi, 1982; Birnbaum et al., 1981b; Cohen and Holahan, 1986). During the 1988 survey of Medicaid programs, States were asked to provide the average Medicaid payment for the property component of payment for both skilled care and intermediate care during 1987. The responses are presented in Table 1. For the States reporting these data, the average payment for capital-related costs during 1987 was $5.95 per day for skilled care and $5.33 per day for intermediate care. Comparing these average payments for property-related costs with the total average per diem payment for care demonstrates that Medicaid payment of capital expenses averaged 10.2 percent of the 1987 Medicaid payment for skilled care and 11.9 percent of the 1987 Medicaid payment for intermediate care. However, studies have put these costs of depreciation, leases, and interest expenses at 13-15 percent of care. This indicates that, typically, levels of Medicaid payment for nursing home care, especially skilled care, do not adequately reflect the capital costs of providing this care.

Medicaid payment methods

States were asked about the various payment policies and mechanisms used during 1988 to calculate payments for care provided by SNFs and ICFs. These payment-method-related responses are summarized in Table 2.

Payment limiting method

The Medicaid programs can use a variety of methods to limit payments to nursing homes (Holahan, 1985; Holahan and Cohen, 1987; Swan, Harrington and Grant, 1988; Buchanan, 1987). Typically, the establishment of payment ceilings involves categorizing nursing homes into homogeneous groups by level of care, size, geographic location, etc. The theory is that nursing homes grouped together with these similar characteristics will provide similar services and have similar cost structures. The payment limit for these homogeneous nursing home groups can then be set using either percentiles or some function of the mean or median cost of the group (e.g., 115 percent of the group mean). The selection of higher percentiles or percents by the Medicaid programs to limit payments allows the payment system to recognize wider variation in payable costs among nursing homes. The lower the percentile or percents selected to limit payments is, the greater is the number of facilities with costs above the payment ceiling or limit.

The Medicaid programs can elect to set one payment limit for the entire range of nursing home costs or to set different payment limits for different cost centers. To protect the quality of care, higher percentiles or percents (hence higher payment limits) can be applied to cost centers related directly to the quality of care such as nursing care. To contain Medicaid expenditures, lower percentiles and percents can be applied to cost centers not directly affecting the quality of care such as administration or housekeeping (Holahan and Cohen, 1987). When Medicaid programs set one payment limit on the range of nursing home costs, the providers have more flexibility to react to the limit. The nursing home can offset high expenses in one cost center by reducing expenditures in another. In contrast, the use of different payment limits for different cost centers allows the Medicaid program greater control over resource use within the nursing home. The Medicaid programs can encourage resource use within some aspects of nursing home care by allowing higher limits for these cost centers. Conversely, the Medicaid programs can discourage expenditures for other aspects of care by setting lower limits for these cost centers (Holahan, 1985).
### Table 2
Medicaid payment methods for nursing home care, by State and type of method: 1988

| State               | Payment limiting | Payment method                     | Operating cost increase | Care-related (Date) | Other (Date) | Allowable cost index |
|---------------------|------------------|------------------------------------|-------------------------|---------------------|--------------|---------------------|
| Alabama             | C (60th)         | Prospective                         | 2                       | DRI-SNF market basket | 2.56%        | 10/1/87             | 81                  |
| Alaska              | A-routine portion only | Prospective, with later adjustment | 2                       |                     | 4.70%        | 7/1/88             | 154                 |
| Arkansas            | D                | Prospective                          | 3                       | CPI-related         | No response  | No response         | 121                 |
| California          | Median           | Prospective                          | NA                      |                     | NA           | NA                  | 117                 |
| Colorado            | C-Administrative 85th Health 90th | Prospective | 1                       |                     | 3.93%        | 7/1/88             | 142                 |
| Connecticut         | B 150%           | Prospective                          | 3                       | GNP                 | NA           | NA                  | 107                 |
| Delaware            | C 75th           | Retrospective, with ceiling          | 1                       |                     | 7.00%        | 10/1/88             | 123                 |
| District of Columbia | NA               |                                    |                         |                     | Variates with facility’s fiscal year | Variates with facility’s fiscal year | 150                 |
| Florida             | D                | Prospective, with later adjustment   | 2                       |                     | 6.81%        | July 88             | 120                 |
| Georgia             | C 90th           | Prospective                          | 3                       | Annual cost report  | 6.00%        | 4/1/88             | 180                 |
| Hawaii              | B 110-125%       | Prospective, with later adjustment   | 2                       |                     | 3.70%        | 7/1/88             | 161                 |
| Idaho               | C 75th or 80th   | Retrospective, with ceiling          | 2                       |                     | 4.10%        | 8/1/88             | 114                 |
| Illinois            | C 65th           | Prospective                          | 2                       |                     | Varies with cost reporting periods | Varies with cost reporting periods | 133                 |
| Indiana             | C, D 90th        | Prospective                          | 3                       | GNP price deflator  | 2.90%        | 10/1/88             | 121                 |
| Iowa                | SNF-C, 60th ICF-C, 64th | Prospective | SNF-2 ICF-3 (Iowa-specific) | SNF-4.0% ICF-.01% | SNF-4.0% ICF-.01% | SNF-4.0% ICF-.01% | 123                 |
| Kansas              | C-varies with cost center | Prospective | 1                       |                     | 3.60%        | 10/1/87             | 129                 |
| Kentucky            | B 102%           | Prospective                          | 2                       | DRI-SNF market basket | NA           | NA                  | 124                 |
| Louisiana           | C 60th           | Prospective                          | 1                       |                     | 4.00%        | July 88             | 80                  |
| Maine               | D                | SNF-Retrospective ICF-Prospective    | 2                       | DRI-SNF market basket | SNF-retrospective ICF-4.3% | SNF-retrospective ICF-4.3% | 99                  |
| Maryland            | B-varies with cost center | Prospective and DRI-SNF market basket | 2                       |                     | NA           | NA                  | 155                 |
| Massachusetts       | B-1 standard deviation over mean | Retrospective, with ceiling | 3-Based on wages from facilities | 14.71% (2-year rate) | 14.71% (2-year rate) |                     | 79                  |
| Michigan            | C 80th           | Prospective                          | 2                       |                     | 6.78%        | 9/87/6/31/89       | NA                  |
| Minnesota           | B 125%, 110%     | Prospective                          | 1                       |                     | 7.80%        | 7/1/88             | 74                  |
| Mississippi         | C 60th           | Prospective                          | 2                       |                     | 4.16%        | 7/1/88             | 130                 |
| Missouri            | B 125%           | Prospective                          | Negotiated rate         | 2%                  | 2%           | 7/1/87             | 144                 |
| Montana             | D-indexed cap from base period | Prospective | 3-Estimated cost increases for State | 2.45%         | 7/1/88       | 113                 |
| Nebraska            | B 110%           | Prospective                          | Not updated each year with uniform % | Not applicable | Not applicable |                     | 131                 |
| Nevada              | C 60th           | Prospective                          | 1                       |                     | 4.02%        | 7/1/88             | 69                  |
| New Hampshire       | SNF-Medicare ICF-C, 75th | SNF-retrospective, with ceiling; ICF- | SNF-None | ICF-6.0% | ICF-6.0% |                     | 142                 |

Sub footnotes at end of table.
| State          | Payment-limiting¹ | Prospective or retrospective¹ | Operating cost-increase¹ | Care-related (Date) | Other (Date) | Allowable cost index |
|---------------|-------------------|-------------------------------|-------------------------|---------------------|--------------|---------------------|
| New Jersey    | B-Varies with cost center | Prospective, with audit adjustment | 5.5%-SNF | 7/1/88 | 5.5%-SNF | 78 |
| New Mexico    | B                  | Prospective                    | 3.30%               | 7/1/88 | 3.30%   | 124 |
| New York      | A                  | Prospective Panel of independent economists | SNF-3.5% ICF-NA | SNF-3.5% ICF-NA | NA |
| North Carolina| C 80th             | Prospective, with later adjustment | 7.40%              | 10/1/88 | 3%      | 135 |
| North Dakota  | B                  | Prospective 3-CPI-related for costs in North Dakota | 2%-8% | 10/1/88 | 2%-8% | 121 |
| Ohio          | A,B,D              | Retrospective with ceiling      | 7.22%               | 7/1/88 | 4.60%   | 95  |
| Oklahoma      | Median             | Prospective 3-Negotiated with industry | 20.0%-SNF 12.0%-ICF | 20.0%-SNF 12.0%-ICF | 131 |
| Oregon        | C 75th             | Prospective, with later adjustment | 4.40% | 7/1/88 | 4.40% | 107 |
| Pennsylvania  | Higher of B-107% or C-55th ceiling | Prospective, with 1 | 4.40% | 7/1/88 | 4.40% | 150 |
| Rhode Island  | C-Varies with cost center | Prospective 2-National nursing home input price index | 10.00% | 11/1/88 | 2.60% | 116 |
| South Carolina| B-mean +5%         | Prospective, with later adjustment 3-Maximum factor developed by South Carolina | 3.90% | 7/1/88 | 3.90% | 138 |
| South Dakota  | B-110% of average cost by group | Prospective 2-Market basket as applied to South Dakota's costs | 4.00% | 7/1/88 | 4.00% | 128 |
| Tennessee     | C-Beds 50th        | SNF-retrospective with ceiling; ICF-prospective 3-Provider's 3-year average, with limit | SNF-8.81% ICF-7.33% | SNF-8.81% ICF-7.33% | 137 |
| Texas         | B-median +7%       | Prospective 3-IPD-PCE | SNF-5.10% ICF-5.70% | SNF-3.75% ICF-3.75% | 111 |
| Utah          | NA                 | Prospective 1 | 12% | 7/1/89 | 4% | 102 |
| Vermont       | C 90th             | Prospective 3-Market basket and CPI mix | 2.60% | 7/1/88 | NA | 135 |
| Virginia      | A                  | Prospective, with later adjustment | 5.32% | 7/1/88 | NA | NA |
| Washington    | Lids vary with cost centers | Prospective, with later adjustment 3-Inflation increase set by legislature | 3.60% | 7/1/88 | 3.60% | 90 |
| West Virginia | Median + standard deviation and C-90th | Prospective 1 (semi-annual) | 2.25% | 10/1/88 | 2.25% | 103 |
| Wisconsin     | B-varies with cost centers | Prospective 3-DRI-McGraw Hill cost component indexes | Varies by home | Varies by home | 125 |
| Wyoming       | B-125% total cost 140% operation and administrative | Prospective 3-Cost report with cap of 140% of median | NA | NA | 120 |

¹Unless otherwise noted, the payment methods are the same for skilled nursing facilities (SNFs) and intermediate care facilities (ICFs).

NOTES: Payment-limiting legend: A—mean or median, B—percentage of mean or median, C—percentile, and D—other. Legend for operating cost-increase method: 1—CPI, 2—market basket index, 3—other. NA is not available. CPI is Consumer Price Index; GNP is gross national product; DRI is Data Resource, Inc.

SOURCE: Buchanan, R.J.: 1988 Medicaid Nursing Home Reimbursement Survey.
The objectives of these payment limits are to penalize inefficiencies by providers, to limit Medicaid expenditures, or both. The lower the percentile or the percent variation of the mean or median used to limit the Medicaid payment is, the greater is the danger that while discouraging inefficiency in the delivery of care the Medicaid program also will affect negatively the quality of care provided and the willingness of nursing homes to accept heavy-care Medicaid patients. However, the use of percentiles in Medicaid ratesetting has been associated with significantly lower Medicaid payments for nursing home care (Buchanan, 1986; Buchanan, 1987).

The Medicaid programs were asked how Medicaid payments for skilled care and intermediate care were limited in their State during 1988. The options offered on the questionnaire were mean or median, percent of the mean or median (list percent), percentile (list percentile), and other. As illustrated in Table 2, a vast majority of the States limit Medicaid payments to nursing homes using either the median (actually the 50th percentile), a percent of the mean or median, or percentiles. In addition, a number of States set separate limits for different cost centers. For example, the Kansas Medicaid program uses the 75th percentile to limit the administration cost center, the 85th percentile to limit the property cost center, the 90th percentile to limit the health care cost center, and the 90th percentile to limit the room and board cost center.

To look at this from another perspective, 90 percent of the nursing homes in Kansas would have health-care-related expenses below the Medicaid payment limit, but only 75 percent would have administrative costs below the Medicaid limit. The incentive to providers is to lower these administrative costs below the Medicaid ceiling. The higher percentile used for health-related expenses still provides cost-containment incentives but decreases the danger that while the range of services will be reduced to keep costs below the Medicaid ceiling.

Of course, the higher the percentile (or percent of the mean or median) is, the weaker the cost-containment incentives to providers are. That is the tradeoff Medicaid policymakers must make between strong cost-containment incentives to nursing homes and the risks of adversely affecting quality and access to care for Medicaid recipients. Establishing separate payment ceilings for different cost centers and setting a higher payment limit on cost-cutting expenses can reduce the dangers that cost cutting will reduce the quality of care Medicaid patients receive and their access to this care.

Allowable cost index

Typically, the lower the percentile or the percent of the mean or median selected is, the more restrictive is the payment limiting method. A State using the 60th percentile would establish a more restrictive payment ceiling than a State using the 90th percentile if all other factors are the same. However, if one Medicaid program has a broader and more generous definition of allowable costs than that in another State, then the selection of a lower percentile may not result in a more restrictive payment ceiling. The Medicaid programs have considerable discretion in defining allowable costs, and the range of allowable costs differ among the States. For example, although most States do not consider bad debts a Medicaid allowable cost, some States do. In another example, some States do not consider advertising an allowable cost, but some do.

To assess the restrictiveness of each State’s allowable cost base, the Medicaid programs were asked to estimate the allowability of the following 18 cost items:

- Nursing care
- Advertising
- Association dues
- Food services
- General and administrative
- Management salaries
- Bad debts
- Social services
- Legal fees
- Employee benefits
- Speech and physical therapy
- Capital interest
- Return on equity
- Pharmacy
- Operating interest
- Laundry and linen
- Housekeeping
- Maintenance and plant operations

A 10-point scale was given on the questionnaire for responses, with “0” equal to “Not allowed” and “10” equal to “Fully allowed.” The responses from each Medicaid program for these 18 cost items were summed to calculate the Allowable Cost Index presented in Table 2. The lower the State’s score on this index was, the more restrictive was the allowable cost base. The average score on the Allowable Cost Index for the 47 Medicaid programs providing data was 120.

Prospective ratesetting

Medicaid programs can set the level of payment for nursing home care in advance with a prospective payment system, or the Medicaid payment can be established after the costs of care are known using a retrospective system. Numerous studies have concluded that prospective payment is associated with lower Medicaid payments for nursing home care (Harrington and Swan, 1984; Buchanan 1983; Buchanan 1986; Swan, Harrington, and Grant, 1988; Meiners, 1982).

A pure retrospective payment system pays the nursing homes for all allowable costs for care, containing no cost-containment incentives. For this reason, retrospective payment is often limited by a payment ceiling. In States using prospective payment systems, the prospective rate may be adjusted, at the State’s discretion, to reflect extraordinary costs. There are other variations of Medicaid prospective payment systems for nursing home care. For example, the prospective class methodology may set one rate for all SNFs and another for all ICFs; or the prospective payment may be set for individual nursing homes, with each rate differing among facilities, based on the historic costs of each provider inflated by an index (Swan, Harrington, and Grant, 1988). The result is that...
the State Medicaid programs have adopted a variety of forms of prospective and retrospective methodologies to pay for nursing home care.

To discover whether the Medicaid programs used the prospective or retrospective payment systems to pay SNFs and ICFs during 1988, the survey questionnaire offered the following choices for selection: prospective; prospective with later adjustment; retrospective; and retrospective with ceiling. As Table 2 illustrates, the overwhelming majority of Medicaid programs used a form of prospective payment to pay for the nursing home care provided to Medicaid recipients during 1988. Only Delaware, Idaho, Massachusetts, Ohio, and Pennsylvania reported that they paid both SNFs and ICFs using the retrospective system, and all five States used ceilings on the level of payment. In addition, the Medicaid programs in Maine, New Hampshire, and Tennessee used a form of the retrospective payment system for skilled care and a form of the prospective system for intermediate care. The Maryland Medicaid program used a form of the prospective payment system for the nursing service cost center and the retrospective system with a ceiling for the other patient care, the administrative and routine, and the capital cost centers.

In efforts to contain nursing home expenditures, the trend among the Medicaid programs has been towards decreased use of the retrospective payment system. During 1975, at least 21 States used a form of retrospective payments to pay SNFs and at least 17 States used retrospective payments to pay ICFs (Buchanan, 1987). As Table 2 illustrates, the number of Medicaid programs using retrospective payment dropped sharply by 1988.

Operating cost increases

States can select from a number of methods to adjust nursing home payments to reflect increases in operating expenses. General inflation indexes can be used such as the Consumer Price Index (CPI) or the gross national product price deflator. In contrast, inflationary indexes reflecting only nursing-home-related cost increases (such as the Data Resources, Inc., SNF market basket index) can be used.

General inflation indexes contain different components, with differing weights, from the cost items associated with the delivery of nursing home care and may not reflect the inflationary trends confronting SNFs and ICFs. The use of these general inflation indexes may lead to inappropriate Medicaid payments. On one hand, if general price increases exceed the rates of increase in nursing home costs, then the Medicaid rates will increase at rates greater than necessary. On the other hand, if general price increases are below the rates of increase in nursing home costs, then the Medicaid increase will be less than necessary (Holahan, 1985). With health-related costs increasing at a more rapid rate than general prices, this latter scenario is a present danger. These lower payment increases can decrease the quality of care provided to Medicaid patients and make it more difficult to place Medicaid recipients in nursing homes, particularly those with heavy-care needs.

The States were asked in the 1988 survey how the operating cost components of the Medicaid payment were increased. The questionnaire offered the following options: CPI, market basket index, Medicare method, facility requested, and others. In addition, the States were asked to report the most recent percent change used for both care-related costs and other operating costs, as well as the effective dates of each increase.

Table 2 summarizes the responses on the method used to increase the payment of operating costs and the actual percent increase (with effective dates) for care-related and other operating costs. The States providing responses used either the increase in the CPI (14 States), a market basket index (16 States), or some other method (18 States) to increase Medicaid payments. (The Iowa Medicaid program used a market basket index to increase payments to SNFs and an Iowa-specific rate to increase payments to ICFs). The rates of increase varied from State to State. Although the effective dates for the increase and the periods covered are not identical for all States, the percent increases reported by Medicaid programs were averaged. The average increases in Medicaid payments to SNFs and ICFs for care-related expenses were 4.86 percent for States reporting these data. The average increases in Medicaid payments for other operating expenses were 4.55 percent for SNFs and 4.19 percent for ICFs for States supplying these data. (These averages excluded Massachusetts, which reported a 2-year inflation rate.)

As Table 2 illustrates, many of the States reporting the use of other methods to increase Medicaid payments for operating costs actually linked the rate of increase to price increases within their States. In addition, Missouri and Oklahoma reported that they negotiated the rate of increase, with the Oklahoma program providing detail. The rate of increase in Medicaid payments to nursing homes in Oklahoma is negotiated with the industry at open meetings, based on audited cost reports from the previous year with adjustments for new requirements mandated by law. In addition, the negotiations make adjustment for inflation, based on published indexes such as the Health Care Financing Administration’s SNF market basket.

The 1988 survey revealed that a large number of State programs increase Medicaid payments for the operating costs of nursing home care using a general inflation index. Typically, health-related expenses have risen at a faster rate than overall prices. The use of a general inflation index to increase Medicaid payments to nursing homes for operating costs could result in less than adequate payment. The clear dangers of inadequate payments are decreases in the quality of care and decreased access to nursing home care for Medicaid recipients.

Payment of capital-related costs

During the survey, Medicaid programs were asked about the methodologies used to calculate payments for capital-related costs. These property-related expenses average about 13-15 percent of a nursing home’s total costs (Grimaldi, 1982; Birnbaum et al., 1981b;
Spitz, 1982). As discussed earlier in the section "Medicaid payment levels," it was discovered during the survey that the 1987 Medicaid payment of capital costs averaged 10.2 percent of the Medicaid payment to SNFs and 11.9 percent of the Medicaid payment to ICFs. The purpose of capital payment is to yield a return on investment sufficient to attract investment into the production of nursing home care and to maintain an adequate supply of capital (Cohen and Holahan, 1986). The major components of property-related costs are depreciation, interest expenses, and a return on equity.

**Facility valuation**

To establish depreciation expenses for Medicaid payment, the value (or basis) of the nursing home must first be established. The States have developed a range of different policies to establish this value (Spitz, 1982). The historic cost, or the cost of constructing the facility, is one valuation option and establishes the least costly basis for Medicaid payment. This payment method does not recognize appreciating property values and makes nursing homes within the State less attractive investments relative to alternative projects. Another option to establish the basis of the nursing home is to value the facility at its replacement cost, which is an estimate of the costs of replacing the nursing home. With this method, according to Spitz, the level of Medicaid payment may be greater than necessary to keep the provider in operation. The replacement method is considered a costly option from the payer's perspective.

Another option for establishing the basis of the nursing home is to use the market value of the facility. A major problem with setting the basis of the facility at the market value is trafficking, or frequent sales of the nursing home, at higher prices. Trafficking establishes successively higher basis values for depreciation purposes to increase Medicaid payment. To control this potential exploitation, the State can require ownership for specified lengths of time before the basis value can be increased, limit the payment of depreciation expenses, or not recognize an increase in the value of nursing homes when ownership changes.

Another survey question asked about the method used to establish the value of the nursing home and listed such options as depreciated replacement cost, market value, historic cost (date of construction), assessed value, or the use of one of these options that establishes the lowest values of the nursing home. In addition, the States were asked if the value of the nursing home could be increased for purposes of Medicaid payment when a change in ownership occurred.

As Table 3 illustrates, the majority of States responded that during 1988 they did not recognize, for purposes of Medicaid payment, an increase in the value of the nursing home when a change of ownership occurred.

**Capital interest expenses**

Capital interest expenses are another component of property-related costs. The level of interest expenses incurred by a nursing home relates to the rate of interest charged and the size of the loan. To contain Medicaid payments for capital-related costs, a number of States are using prospective payment methodologies to pay these expenses (Kolb and Kreuzer, 1984). However, if payment of capital-interest expenses is too restrictive, new investment will be discouraged, and existing nursing homes may close (Spitz, 1982).

The 1988 survey questionnaire asked the States how they paid capital-interest expenses and provided the following options for responses:

- Actual interest expense paid.
- Prevailing market interest rates paid.
- Medicare system used.
- Actual interest expenses paid, with ceiling applied to related parties.
- Interest expenses limited by a ceiling on capital payment.

At least 27 States set a ceiling on Medicaid payment of capital costs (Table 3).

**Return on equity**

Another component of property-related expenses is the opportunity cost of investing the owners' capital in the nursing home. This owners' equity could be invested in alternative projects to nursing homes to produce a profit. To encourage investment in nursing homes, States can recognize a return on equity as an allowable cost and guarantee owners a profit on their investment.

Payment of a return on equity is optional, and the rate of return selected is left to the State. These decisions depend on the perceived need for Medicaid beds in each State and the potential profitability of the overall Medicaid payment system (Spitz, 1982). In fact, it can be argued that when the deductibility of depreciation and interest expenses from federally taxable income is considered, paying a return on equity at market rates overcompensates investors (Baldwin and Bishop, 1984; Cohen and Holahan, 1986). In other words, when the advantages of the Federal income tax system to cash flow are considered, the rate of return on equity allowed by the Medicaid programs can be below the market rate of return because of these subsidies from the Federal tax system.
Table 3
Medicaid payment of capital-related costs, by State and method of payment: 1988

| State            | Facility valuation | Change of ownership value increase | Capital interest expenses | Return on equity | Fair-rental system |
|------------------|--------------------|------------------------------------|---------------------------|------------------|-------------------|
| Alabama          | 1, 2, 5            | Yes                                | E                         | Medicare rate    | No                |
| Alaska           | 3                  | Yes                                | Other                     | Not an allowable cost | No |
| Arkansas         | 3                  | Yes                                | E                         | Not an allowable cost | No |
| California       | 3                  | No                                 | B                         | Not an allowable cost | No |
| Colorado         | 1, 4               | No                                 | E                         | Not an allowable cost | Yes |
| Connecticut      | 3                  | Sometimes in hardship situations   | NA                        | Medicare rate    | Yes |
| Delaware         | 1                  | No                                 | E                         | Not an allowable cost | No |
| District of Columbia | 3              | No                                 | NA                        | NA               | NA               |
| Florida          | Fair rental value  | No                                 | E                         | Medicare rate    | Yes |
| Georgia          | 1, 3, and Dodge Index | Yes                              | E                         | 7.70 percent    | No |
| Hawaii           | 3                  | No                                 | E                         | Medicare rate    | No |
| Idaho            | 3                  | No                                 | E                         | Not an allowable cost | Yes |
| Illinois         | 3                  | No                                 | NA                        | 9.13 percent    | Yes |
| Indiana          | 3                  | Yes                                | E                         | Capital return factor in per diem | No |
| Iowa             | SNF-3              | No                                 | SNF-C                     | Not an allowable cost | No |
|                  | ICF-3, 4           |                                     | ICF-A, D, E               |                  |                   |
| Kansas           | 5                  | No                                 | Property fee              | Not an allowable cost | No |
| Kentucky         | 3                  | No                                 | E                         | Not an allowable cost | No |
| Louisiana        | 3                  | No                                 | E                         | 5 percent        | Yes |
| Maine            | 3                  | Yes, only to seller's original historic cost | E                         | 10 percent       | No |
| Maryland         | 2                  | No                                 | A                         | 8.88 percent    | Yes |
| Massachusetts    | 3                  | No                                 | A                         | 10.08 percent   | No |
| Michigan         | 5                  | Yes, with limits on the amount of increase | E                         | Medicare rate    | Yes |
| Minnesota        | 1                  | No                                 | D-also limit on overall debt | 5.66 percent | Yes |
| Mississippi      | 3 as of 7/18/84     | No                                 | A-unless owner changed 7/18/84 | 15 percent     | No |
| Missouri         | 5                  | No                                 | B                         | 12 percent      | No |
| Montana          | 3                  | No                                 | B                         | Not an allowable cost | No |
| Nebraska         | 3 owner as of 12/1/84 | No                              | D, E                      | Not an allowable cost | No |
| Nevada           | 3                  | Yes                                | E                         | Not an allowable cost | No |

See footnotes at end of table.

The States were asked if a return on equity was a payable expense during 1988; and, if so, what was the allowable rate. As Table 3 shows, 24 States did not pay a return on equity and 24 did, with many allowing the rate of return used by the Medicare program to pay SNFs. In August 1988, the Medicare program paid SNFs with a 9.125-percent rate of return. Using this Medicare rate in the calculation, the average rate of return on equity used by the Medicaid programs paying this capital-related expense was approximately 9.2 percent.

Fair-rental system

The use of a fair-rental system is an alternative to the cost-related payment of the capital expenses already discussed. A fair-rental system pays an imputed rent for the residential-related services provided by nursing homes and is intended to overcome the inflationary incentives of cost-related payment of property costs such as depreciation and interest expenses (Grimaldi and Jazwiecki, 1987). This imputed rent is calculated using an estimated current value of the capital assets used to provide care in nursing homes.

Advocates of the fair-rental system point out numerous advantages of this system, compared with cost-based payment of capital costs (Cohen and Holahan, 1986). The fair-rental system enables Medicaid programs to recognize rising property value without requiring sales, refinancing,
### Table 3—Continued

**Medicaid payment of capital-related costs, by State and method of payment: 1988**

| State             | Facility valuation¹ | Change of ownership value increase¹ | Capital interest expenses² | Return on equity¹ | Fair-rental system¹ |
|-------------------|---------------------|-------------------------------------|---------------------------|-------------------|----------------------|
| New Hampshire     | Historic cost       | Yes                                 | C                         | Not an allowable cost | No                   |
| New Jersey        | 1                   | No                                  | Other                     | Other             | No                   |
| New Mexico        | 3                   | Yes, with limits                    | D, E                      | Not an allowable cost | No                   |
| New York          | Not applicable      | No                                  | Not applicable            | Medicare rate     | No                   |
| North Carolina    | 2, 3, 5             | No                                  | Other                     | Lower of Medicare rate or 11.875 percent | No |
| North Dakota      | 5                   | No                                  | E                         | Not an allowable cost | No |
| Ohio              | 3                   | Yes, up to a ceiling                | E                         | <150 percent hospital bond rate up to $1 per diem | No |
| Oklahoma          | 3                   | No                                  | E                         | Not an allowable cost | Yes |
| Oregon            | 3 during phase-in to FRV | No                  | NA                       | Not an allowable cost | Yes |
| Pennsylvania      | 3                   | No                                  | E                         | Not an allowable cost | No |
| Rhode Island      | 3                   | Yes                                 | E                         | NA                | No                   |
| South Carolina    | 3                   | No                                  | A, E                      | 7.15 percent      | No                   |
| South Dakota      | 3                   | No                                  | D, E, limited by final ceiling | 5.65 percent | No |
| Tennessee         | Lower of 2, 3, or purchase | Yes, effective on sales after 7/1/88 | Other | Medicare rate up to $1.50 per diem | No |
| Texas             | 3                   | Yes                                 | A                         | Not an allowable cost | No |
| Utah              | 3                   | No                                  | E                         | Not an allowable cost | No |
| Vermont           | Historic cost of seller | No                              | C                         | Medicare rate     | No |
| Virginia          | 3                   | Yes                                 | E                         | Not an allowable cost | No |
| Washington        | 5                   | No                                  | Financing allowance = 11 percent of net book value | Not an allowable cost | No |
| West Virginia     | 2-current reproduction | No                               | FRV system                | 150 percent of Medicare rate | Yes |
| Wisconsin         | 1, 3, 4             | Yes                                 | E                         | Not an allowable cost | No |
| Wyoming           | 2                   | Yes, up to ceiling                  | A                         | Not an allowable cost | No |

¹Unless otherwise noted, the capital payment mechanisms are the same for skilled nursing facilities (SNFs) and intermediate care facilities (ICFs).

NOTES: Facility valuation legend: 1—depreciated replacement cost, 2—market value, 3—historic cost (date of construction), 4—assessed value, and 5—lower of the four options. Capital interest expenses legend: A—actual interest expense reimbursed, B—prevailing market interest rates paid, C—Medicare system used, D—actual interest expenses paid with a ceiling to related parties, and E—interest expenses limited by a ceiling on capital payment. FRV is fair-rental value. NA is not available.

**SOURCE:** Buchanan, R.J.: 1988 Medicaid Nursing Home Reimbursement Survey.

### Incentives in nursing home payment

The Medicaid programs have the option of including a number of incentive mechanisms in their payment systems. The States can use efficiency incentives to encourage nursing homes to minimize the costs of providing care to Medicaid patients. These efficiency incentives usually involve allowing the nursing home to keep all or some of the difference between actual costs of care and a Medicaid ceiling or target rate (Holahan and Cohen, 1987; Swan et al., 1988; Buchanan and Minor, 1985).

The Medicaid programs were asked if their payment systems included efficiency incentives. In addition, they
Table 4
Medicaid incentives for nursing home care, by State 1988

| State               | Efficiency effectiveness | Occupancy effectiveness | Quality-of-care effectiveness | AIDS care effectiveness |
|---------------------|--------------------------|-------------------------|------------------------------|-------------------------|
| Alabama             | No                       | No                      | No                           | No                      |
| Alaska              | Yes 3                    | No                      | No                           | No                      |
| Arkansas            | No                       | Yes                     | No                           | No                      |
| California          | Yes 5                    | No                      | No                           | No                      |
| Colorado            | Yes 5                    | Yes                     | No                           | No                      |
| Connecticut         | Yes 3                    | Yes                     | No                           | No                      |
| Delaware            | Yes 4                    | Yes                     | Yes                          | No                      |
| District of Columbia| Yes 3                    | Yes                     | No                           | No                      |
| Florida             | Yes 3                    | No                      | Yes                          | Yes (Not completed)     |
| Georgia             | Yes 3                    | No                      | No                           | No                      |
| Hawaii              | Yes 4                    | No                      | No                           | No                      |
| Idaho               | Yes 3                    | Yes                     | No                           | No                      |
| Illinois            | Yes 4                    | Yes                     | No                           | No                      |
| Indiana             | Yes 3                    | Yes                     | Yes                          | No                      |
| Iowa                | Yes 3                    | Yes                     | No                           | No                      |
| Kansas              | Yes 5                    | Yes                     | Yes                          | Yes 3                  |
| Kentucky            | Yes 5                    | Yes                     | No                           | No                      |
| Louisiana           | No                       | No                      | No                           | Yes 3                  |
| Maine               | Yes 3                    | Yes                     | No                           | No                      |
| Maryland            | Yes 4                    | Yes                     | No                           | Yes 3                  |
| Massachusetts       | Yes 3                    | Yes                     | Yes                          | Yes 3                  |
| Michigan            | Yes 3                    | Yes                     | Yes                          | No                      |
| Minnesota           | Yes 4                    | Yes                     | Yes                          | No, except for treatment based on activity of daily living |
| Mississippi         | Yes 3                    | Yes (No estimate)       | No                           | No                      |
| Missouri            | No                       | No                      | No                           | No                      |
| Montana             | Yes 3                    | Yes                     | No                           | No                      |
| Nebraska            | Yes 3                    | Yes                     | No                           | No                      |

See footnotes at end of table.

were provided a 1-to-5 scale to estimate the effectiveness of the incentives. A response of **1** was equal to **"Ineffective,"** **3** was equal to **"Moderately effective,"** and **"5"** was equal to **"Very effective."** As Table 4 illustrates, 40 States and the District of Columbia reported that they included efficiency incentives in their payment systems. The average effectiveness of these efficiency incentives was estimated at 3.27 or better than moderately effective. In addition, Medicaid payment systems can include occupancy incentives that are also intended to increase efficiency. Studies have shown that higher occupancy rates result in lower costs, reflecting the more efficient
Table 4—Continued
Medicaid incentives for nursing home care, by State 1988

| State             | Efficiency effectiveness | Occupancy effectiveness | Quality-of-care effectiveness | AIDS care effectiveness |
|-------------------|--------------------------|-------------------------|-------------------------------|-------------------------|
| Nevada            | No                       | No                      | No                            | No                      |
| New Hampshire     | Yes                      | Yes                     | No                            | No                      |
| New Jersey        | Yes                      | Yes                     | No                            | Yes                     |
| New Mexico        | Yes                      | Yes                     | No                            | No                      |
| New York          | Yes                      | Yes                     | Yes                           | Yes, under development  |
| North Carolina    | Yes                      | Yes                     | Yes                           | Yes                     |
| North Dakota      | No                       | No                      | No                            | Yes, case mix as of 1/1/90 |
| Ohio              | Yes                      | Yes                     | No                            | No                      |
| Oklahoma          | No                       | No                      | No                            | No                      |
| Oregon            | Yes                      | No                      | Yes, test program in progress | No                      |
| Pennsylvania      | Yes                      | No                      | No                            | No                      |
| Rhode Island      | Yes                      | Yes                     | No                            | Unknown                 |
| South Carolina    | Yes                      | No                      | No                            | No                      |
| South Dakota      | No                       | No                      | No                            | No                      |
| Tennessee         | Yes                      | Yes                     | No                            | No                      |
| Texas             | No                       | No                      | No                            | No                      |
| Utah              | Yes                      | Yes                     | Yes                           | Yes                     |
| Vermont           | Yes                      | Yes                     | No                            | No                      |
| Virginia          | Yes                      | Yes                     | No                            | No                      |
| Washington        | Yes                      | Yes                     | Yes                           | No                      |
| West Virginia     | Yes                      | Yes                     | No                            | No response             |
| Wisconsin         | Yes                      | Yes                     | No                            | Yes                     |
| Wyoming           | Yes                      | No                      | Yes                           | No                      |
| Summary of responses: |                           |                         |                               |                         |
| Total "No" responses | 39                      | 18                      | 35                            | 36                      |
| Total "Yes" responses | 41                      | 32                      | 15                            | 12                      |
| Average effectiveness | 3.27                    | 3.76                    | 3.36                          | 2.75                    |

1 The effectiveness scale is:

1. Ineffective
2. Moderately effective
3. Effective
4. Very effective

NOTE: AIDS is acquired immunodeficiency syndrome.

SOURCE: Buchanan, R.J.: 1988 Medicaid Nursing Home Reimbursement Survey.

use of fixed-cost beds and services (Ullman, 1984; Caswell and Cleverly, 1983; Meiners, 1982).

The Medicaid programs were asked if their payment systems included occupancy incentives and were provided the same 1-to-5 scale to estimate the effectiveness of these incentives. As summarized in Table 4, 31 States and the District of Columbia incorporated occupancy incentives into their payment systems, with an average effectiveness estimate of 3.76. The Medicaid programs estimated that these occupancy incentives were the most effective of the four incentive mechanisms included in the survey. Given the association between higher occupancy rates and lower nursing home costs, more States should include occupancy incentives in their payment systems.

The States also have the option of including quality-of-care incentives in their payment systems. Only 15 States included quality-of-care incentives in their payment systems and, using the 1-to-5 scale, estimated an
The Medicaid programs were asked if they provide incentives to nursing homes to accept patients with acquired immunodeficiency syndrome (AIDS). Nursing homes will play an increasingly larger role in the delivery of institutional care to AIDS patients (Sussman, 1990). A nursing home may be a more appropriate provider of care than the hospital in the management of AIDS-related chronic diseases and at a much lower cost. An estimated 40 percent of all AIDS patients will eventually become dependent on the Medicaid programs to pay for their care (Buchanan, 1988). Placing Medicaid recipients with AIDS in nursing homes when institutional care is necessary will provide appropriate care and at lower costs than hospital care.

The Medicaid programs were also asked if their payment systems contained incentives to nursing homes to accept AIDS patients. Twelve States responded that AIDS incentives were either in place or in development. Using the 1-to-5 effectiveness scale, the average effectiveness response for the eight States providing estimates was 2.75. Although the Minnesota Medicaid program responded that there were no specific AIDS-related incentives in its nursing home payment system, payment to nursing homes in Minnesota are case-mix related or based on the care needs of patients. Also, the Florida Medicaid program reported that although it did not have AIDS-care incentives, it did make additional payments to nursing homes for the care of AIDS patients. As the Medicaid programs become increasingly important payers of AIDS-related care, the States should develop effective incentives for nursing homes to accept AIDS patients not only to contain program expenditures but to assure Medicaid recipients with AIDS that they will have access to appropriate, cost-effective care.

Summary and conclusions

Medicaid policymakers often must choose between conflicting objectives in the design and implementation of payment systems for nursing home care. One set of objectives involves developing payment mechanisms that establish payment rates at levels sufficient to promote the delivery of good quality nursing home care and to assure Medicaid recipients that they will have access to that care. A potentially conflicting set of objectives is the tradeoff between assurances of quality and access on one hand and program expenditure control on the other.

Because institutional long-term care is the largest expenditure category in State Medicaid budgets, nursing home payments offer a primary target for Medicaid cost-containment efforts. Payments to SNFs, ICFs, and ICFs for the mentally retarded approached 42 percent of total spending by all Medicaid programs during 1988 (Health Care Financing Administration, 1989). In individual States, these percents can be much higher. For example, in Minnesota and North Dakota, payments to long-term care facilities equalled 61 percent and 56 percent of total Medicaid spending, respectively, during 1988.

Efforts to control these large Medicaid expenditures for nursing home care can be seen in the payment systems developed by the States that are presented in this article. Using the payment data collected from the States, the average Medicaid payment for skilled care of $60.65 during 1988 increased only 4.14 percent from the average payment of $58.24 in 1987; the average Medicaid payment for intermediate care in 1988 increased only 3.11 percent from the 1987 level. These average rates of increase were less than both the general rate of inflation and the rate of increase in the costs of providing health services. With the exception of Minnesota where the payment charged to private patients in nursing homes cannot exceed the Medicaid level, Medicaid payments for skilled care and intermediate care are substantially less than the payments from private patients. Averaging the estimates of these differentials from the States providing data during the 1988 survey indicates that Medicaid payment levels were $11.98 per day less than private payments for skilled care and $10.19 per day less for intermediate care. These relatively low Medicaid payment levels for nursing home care, combined with low rates of increase, raise questions about the adequacy of the level of services Medicaid recipients receive in nursing homes. In addition, with large differentials between Medicaid and private payments for this care, it becomes obvious why the placement of Medicaid recipients in SNFs and ICFs is often difficult, especially those patients with heavy-care needs.

The results of the 1988 survey of Medicaid programs illustrate the payment mechanisms adopted by the States to contain payments. In contrast to the 1970s, few Medicaid programs used retrospective payment systems to pay for nursing home care during 1988. Review of the literature reveals that prospective ratesetting has been consistently associated with lower Medicaid costs. In addition, many States use relatively low percentiles or percent variations around a group mean to set limits or ceilings on Medicaid payments. The lower the percentile or percent selected to establish these payment ceilings is, the greater is the number of nursing homes with costs above the limits. Although restrictive payment limits may encourage providers to reduce costs, these ceilings also can decrease the level of services provided to Medicaid patients and reduce their access to care. One approach to offset these quality-related dangers is to limit Medicaid payments for care-related cost centers separately from other nursing home cost centers, with higher percentiles or percent variations used to set ceilings on payments for care-related services.

The 1988 survey attempted to measure the restrictiveness of the cost base allowed by each Medicaid program. The allowable cost index that was developed for this study illustrates the relative restrictiveness of each State's allowable cost base. Data were also collected on the mechanisms the Medicaid programs used to increase the payment levels for operating expenses. Many States used general inflation indexes, such as the CPI or the gross national product price deflator. With health-related costs increasing more rapidly than general prices, the use of these general inflation indexes to increase Medicaid payments results in less than needed payment. Again, inadequate increases in Medicaid payments can lead to decreases in the quality of care and decreased access to care for Medicaid patients.
Historically, the payment of capital-related expenses often involved provider manipulation and abuse of the Medicaid systems. Trafficking in nursing homes results in greater Medicaid payments for capital-related expenses. Federal and State Medicaid policies have been designed to limit these increased costs resulting from trafficking. Responses to the 1988 survey indicate that most Medicaid programs use the least costly methods to calculate depreciation expenses, which are a major component of capital costs. A majority of Medicaid programs also reported they set a ceiling on payments for capital-related expenses. In addition, 24 Medicaid programs did not pay a return on equity during 1988. Although restrictive payment policies may limit Medicaid expenditures for property-related costs, they can also make investments in nursing homes unattractive. The purpose of capital payment is to provide a sufficient return on investment to attract capital into the production of nursing home care. Containment of capital payment by the Medicaid programs could retard the development of new nursing home beds needed by an increasingly older American population.

Restrictive Medicaid payment systems may limit payment increases to nursing homes and restrain Medicaid spending sufficiently to muddle through current fiscal problems. However, in the short run, the quality and range of services provided to Medicaid recipients in nursing homes may decline. In addition, it will become more difficult to place Medicaid recipients in nursing homes, particularly patients with heavy-care needs. In the long run, restrictive Medicaid payment policies will limit the supply of beds below needed levels. Without adequate Medicaid payment levels, the supply of nursing home beds will grow sufficiently to meet only the demand from private patients. Because the Medicaid programs currently are the only major third-party payers of nursing home care, and unless new financing options are created, the long-term care services available to many elderly Americans will be severely restricted in the future.

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