

Public and Private Responsibility for Financing Nursing-home Care: The Effect of Medicaid Asset Spend-down

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NEARLY 48 BILLION DOLLARS WERE SPENT ON nursing-home care in the United States in 1989, almost half of it by private individuals and the rest mostly by the Medicaid program. Expenditures for nursing-home care were exceeded only by expenditures for hospitals and physicians in the National Health Accounts (Lazenby and Letsch 1990). Individuals fear being impoverished by the high cost of nursing-home stays, and public officials view with concern Medicaid expenditures for nursing-home care that increasingly compete with other spending priorities.

These concerns have led to a series of proposals to alter public financing of nursing-home care. Two types of proposals, each offering universal entitlement to coverage of nursing-home care under a publicly sponsored plan, have received considerable attention. Although both would pay for only a portion of each person's nursing-home experience, one approach is to cover the beginning and the other is to cover the end of nursing-home stays. The "Pepper Commission"¹ and Senator Ed-

¹U.S. Bipartisan Commission on Comprehensive Health Care (1990).

ward Kennedy,² for example, have proposed "front-end" benefits limited to the first 3 and 6 months of nursing-home care, respectively. Senator George Mitchell³ and Representative Pete Stark⁴ have, on the other hand, proposed "back-end" benefits designed to cover all nursing-home days after an initial waiting period. Senator Mitchell proposes a waiting period of 2 years, whereas Representative Stark proposes a 12-month waiting period that would decrease from 12 to 2 months as the program was phased in.

The cost of insuring all nursing-home days is an obvious reason for limiting a public program by, for example, front-end or back-end coverage. Another consideration is the potential role of private long-term-care insurance. Rather than substitute for private insurance, a public plan that covered part of the cost of nursing-home care could potentially make private insurance more affordable for the remainder. Senator Kennedy's proposal offers a publicly oriented variation on this theme. His bill would establish a federally sponsored, but optional, long-term-care insurance program to be used in addition to the universal front-end benefit, with premiums based on a sliding scale of income up to 65 percent of costs.

A front-end entitlement, the Pepper Commission (U.S. Bipartisan Commission on Comprehensive Health Care 1990) and others have argued, targets nursing-home users who are the most likely to return home and who need protection for their income and assets in order to live in the community. A front-end insurance program might enjoy wider political support as well, because all persons who ever use a nursing home would benefit.

A back-end benefit, by contrast, would be limited to nursing-home users who are institutionalized for a long time. Its proponents argue, however, that it is the prospect of amassing \$50,000 or more of nursing-home bills over the course of a long stay that the elderly most fear. According to Congressman Stark,⁵ "The first few months in a nursing

² S.2163, Life Care, Long-Term-Care Protection Act, 101st Cong., 2d Sess. (1990).

³ S. 2305, The Long-Term-Care Assistance Act of 1988, 100th Cong., 2d Sess. (1989).

⁴ H.R. 651, Mediplan Long-Term-Care Act of 1991, 102nd Cong., 1st Sess. (1991).

⁵ *Congressional Record*, January 24, 1991: E281.

home—referred to as the front end and amounting to \$6,000 or even \$9,000 is a relatively small concern by comparison.” According to the traditional argument for buying insurance, the benefits of risk pooling are greatest when there is a relatively small probability of a very large loss, a situation that well applies to a back-end benefit.

Furthermore, by adopting a back-end benefit, the government would limit the potential liability of private insurers to the length of the waiting period and reduce some of the uncertainty about the potential claims facing long-term-care insurers. Reducing this uncertainty, it is argued, would encourage the development of the private market and that, in turn, might reduce public nursing-home expenditures under the Medicaid program.

Public expenditures for nursing-home care are already substantial under Medicaid. The current system enables some nursing-home residents to qualify automatically for Medicaid as recipients of Supplemental Security Income (SSI); their income and assets are below the limits defined for SSI (Carpenter 1988). Persons with financial resources exceeding these limits can qualify for Medicaid by “spending down” income and assets according to rules established by each state. Under these rules, in a process known as “income spend-down,” nursing-home and other medical expenses are deducted from a person’s income before determining whether the state’s income test is met. Similarly, in the course of “asset spend-down,” a person’s assets are depleted until the state’s asset test is met.

Given that nursing-home expenditures average more than \$2,000 a month, many elderly persons can meet the income requirements as soon as they begin to incur nursing-home expenses. If they also meet the asset test, they are admitted as Medicaid recipients. By contrast, persons who must deplete their assets in order to receive Medicaid are admitted as private-pay patients and then qualify for Medicaid sometime after admission. The period from admission to Medicaid eligibility is a function of the patient’s assets, income, and monthly expenditures for nursing-home and other medical care.

One of the main issues in evaluating the budgetary implications of either a front-end or back-end proposal is the extent to which the new program would substitute for benefits currently paid by Medicaid. Not only would the total public cost of a new benefit be offset by reductions in Medicaid but, if the federal government paid the entire cost or even

a larger share than it pays under Medicaid, states would enjoy a reduction in their Medicaid expenditures. In this article we simulate the sources of financing for nursing-home residents under several illustrative public financing proposals and compare them with current financing sources.

This analysis required several key pieces of information about the financing and utilization of nursing-home care under current policy: the proportion of nursing-home patients entering either as private-pay or on Medicaid; the length of time that residents covered by different payment sources have been in a nursing home; the proportion of private-pay patients who spend down their assets to become eligible for Medicaid after admission; and the time that it takes for asset spend-down to occur. Our data source, the 1987 National Medical Expenditure Survey (NMES), is unique in providing all of this information for a nationally representative sample of nursing-home residents.

To shed light on the budgetary implications of nursing-home financing proposals, we analyze the distribution of payment sources for current nursing-home residents. Thus, we examine the proportion of people in nursing homes with financing from Medicaid and other sources on a given day, first under current law and then under the simulated proposals. A one-day snapshot of payment sources is appropriate for analyzing budgetary issues because (with the possible exception of seasonalities) the distribution of patients by payment source on a single day is equivalent to the distribution of patient-days by payment source over a longer accounting period such as a year. However, the one-day snapshot does not give an accurate picture of the number of *people* who would be affected by a particular policy proposal, because the large proportion of people who use nursing homes for short stays is underrepresented.

If reimbursement rates were the same for all payers and each patient-day had only one payer, then the distribution of expenditures by payer would be equivalent to the distribution of patient-days by payer. However, because Medicaid generally pays less than private-pay patients and because many Medicaid recipients contribute from their own incomes (through income spend-down), Medicaid's share of nursing-home expenditures is smaller than its share of residents or patient-days. Conversely, the share of expenditures paid out of pocket is larger than indicated by the proportion of residents who are entirely private-pay.

Although patient-days do not translate directly into expenditures, our data and simulations nevertheless give a clear indication of the budgetary implications of Medicaid asset spend-down, of proposed changes in nursing-home financing, and of the interaction between the two. Because NMES is an important new source of information on the financing of nursing-home care, we also provide basic estimates of spend-down from NMES for comparison with other data sources.

Data and Methods

The data are from the Institutional Population Component (IPC) of the 1987 National Medical Expenditure Survey. The IPC was designed to provide national estimates of the population using nursing and personal care homes or facilities for the mentally retarded at any time in 1987. To meet this objective, a representative sample of facilities with three or more beds was selected from the 1986 Inventory of Long Term Care Places. The inventory was specifically constructed to serve as the sampling frame for the IPC and corresponds to the universe of all nursing and personal care homes and facilities for the mentally retarded in the United States. Although this universe was intended to include unlicensed personal care homes, they are difficult to identify and were probably underrepresented in the inventory to an unknown extent. (See Lair and Lefkowitz [1990] for a detailed discussion of the criteria used to define facilities as nursing or personal care homes and the universe of facilities eligible for the survey.)

Within each sampled facility, a random sample of residents on the first day of 1987 was selected. All admissions occurring during 1987 were also sampled (in three return visits to each facility) in order to capture all use of institutional services during the year. Data were collected from facility administrators, staff responsible for billing and financial records, and staff providing direct patient care, as well as from family and friends of the sampled residents (Edwards and Edwards 1989).

Residents of nursing and personal care homes on January 1, 1987, comprise the population considered in this analysis. (It includes neither admissions to nursing and personal care homes after January 1, nor users of facilities for the mentally retarded.) Ten percent of this population resided in places that were not certified by either Medicare or Medicaid,

many of them personal care homes. In what follows, the term "nursing home" is used generically to refer to both nursing and personal care homes as included in the NMES sample. The estimates are based on 800 sampled homes and 3,209 sampled residents.

Statistical techniques appropriate to the complex survey design were used to estimate variances in the analysis, and only statistically significant differences at the .05 level using a two-tailed test are discussed. (Standard errors are available from the authors upon request.)

The questionnaires identifying payment sources for residents at the beginning of 1987 were completed for 89.5 percent of all targeted residents in all targeted facilities. The 10.5 percent nonresponse rate reflects sampling both of facilities that did not cooperate and of residents for whom billing information was not obtained. Payment sources in January 1987 were defined from data on basic room and board charges and on sources of payment for the first billing period in 1987. Payment sources for each resident at the time of admission were determined from retrospective questions asked of billing personnel. When a resident was covered by Medicaid at the start of 1987, but had not been eligible for Medicaid at admission, the facility respondent was asked for the date of Medicaid enrollment. Missing data, which ranged from a handful of cases without payment sources in January 1987 to 22 percent of spend-down cases that were missing the date of Medicaid eligibility, were imputed from cases that were similar in terms of payment sources, 1986 family income, home ownership, and time in the nursing home.

In our analysis and discussion, we distinguish between nursing-home stays and episodes. A "stay" is the time between admission to the nursing home and discharge, regardless of where the person was prior to admission or after discharge. An "episode" is the time between admission to a nursing home from the community until discharge to the community (or death). Thus, an episode aggregates time in a given nursing home that was interrupted only by hospitalizations, creating multiple stays, and includes stays in more than one nursing home if the person was transferred directly from one to the other. Although NMES does not provide information about stays in prior nursing homes (making it impossible to construct complete episodes), the survey does permit one to aggregate time in the sampled nursing home that was interrupted only by hospitalizations. The latter aggregation of stays, corresponding to an episode of care in a particular home, more closely approximates a

complete episode of nursing-home care than does a single stay (see Short, Cunningham, and Mueller 1991).

To identify residents who spend down to Medicaid, payment sources at admission were compared with payment sources in January 1987. In an improvement over other national studies of asset spend down, payment sources at admission were defined at the start of the most recent episode of continuous care in the sampled home, rather than at the start of the most recent stay. Consequently, residents who were admitted as private-pay, spent down to Medicaid, and were subsequently discharged to the hospital and then readmitted (on Medicaid) are correctly identified as having spent down. Similarly, the time from admission to January 1, 1987 and, if appropriate, from admission to spend-down were measured from the start of the continuous episode of care in the home. To the extent that some residents were transferred from other nursing homes or had experienced previous episodes of care, this procedure still understates both the extent of spend-down in nursing homes and the cumulative amount of time spent in a nursing home.

Payment sources were coded in the questionnaires as Medicare, Medicaid, Supplemental Security Income (SSI), Veteran's Administration (VA, now the U.S. Department of Veterans Affairs), own income or family support, private health insurance, prepayment to continuing or life care community, and other (including, for example, state or local government, and charitable organizations). These were combined into mutually exclusive categories for analytic purposes as follows: Medicaid, including all residents with any share of the bill paid by Medicaid; Medicare, comprising all residents with any Medicare except those with Medicaid; private pay, encompassing all residents (except those with Medicare or Medicaid) with payments from their own income or family support, private health insurance, or a continuing-care community; and a residual category of all others, into which fall SSI, VA, and other.

Current Payment Sources

About 61 percent of persons in nursing or personal care homes on January 1, 1987 were enrolled in Medicaid (table 1). Almost all of the rest (36.2 percent) were private-pay patients, that is, residents without either Medicaid or Medicare payment for nursing-home expenses who paid for

TABLE 1
Payment Sources of Nursing-home Residents in January 1987
and at Admission

Payment source in January 1987	Payment source at admission (%) ^a				
	Total	Medicaid	Private pay	Medicare, no Medicaid	Other
Total	100.0	47.8	43.0	5.8	3.4
Medicaid	60.8	45.9	11.1	2.8	1.0
Private pay	36.2	1.5	31.6	2.1	1.0 ^b
Medicare, no Medicaid	1.3	0.2 ^b	0.2 ^b	0.8	0.0 ^c
Other	1.7	0.3 ^b	0.1 ^b	0.0 ^c	1.3

Source: 1987 National Medical Expenditure Survey, Institutional Population Component.

^a These percentages are based on an estimated total of 1,471,000 residents on January 1, 1987.

^b SE $\geq$ 30%.

^c Less than 0.05%.

at least part of their care out of pocket or were covered by private insurance or through arrangements with a continuing-care community. Medicare contributed toward the nursing-home care of 1.3 percent of residents. The remaining 1.7 percent were financed entirely by other sources—including SSI, the VA, state and local government, and charitable organizations. As expected, persons with Medicaid payments accounted for a larger share of nursing-home days than Medicaid's share of nursing-home dollars (45 percent of payments in 1987; Lazenby and Letsch 1990).

Also as expected, the percentage of residents who were admitted as Medicare patients was larger than the percentage covered by Medicare in January 1987. Because Medicare nursing-home benefits were restricted to a brief period of posthospital skilled care, more than four times as many residents were covered by Medicare at admission.

Of particular interest are the residents who shifted from private-pay status at admission to Medicaid by January 1987. Out of the 1,471,000 people in nursing or personal care homes at the start of 1987, a total of 163,000 were covered by Medicaid but had been admitted as private-pay patients (not shown). Thus, 11.1 percent of nursing-home residents

TABLE 2
Payment Sources at Admission of Nursing-home Residents
on Medicaid in January 1987

Payment source	Percent ^a
Total	100.0
Medicaid	75.4
Private pay	18.2
Medicare, no Medicaid	4.7
Other	1.7

Source: 1987 National Medical Expenditure Survey, Institutional Population Component.

^a Percentages are based on an estimated total of 895,000 Medicaid residents on January 1, 1987.

shifted from private-pay to Medicaid, presumably by spending down their assets. If residents of personal care homes and other facilities not certified by Medicaid are excluded, the proportion of residents who spent down is slightly higher (12.7 percent, not shown).

Although the proportion of residents on Medicaid in January 1987 was higher than at admission (60.8 percent versus 47.8 percent), the change amounted to only 13 percent. Indeed, three quarters of residents who were on Medicaid in January 1987 were admitted on Medicaid (table 2). Eighteen percent were admitted as private-pay, and about 5 percent were admitted on Medicare.

Most residents who had spent down by January 1987 did so in a short time. Half had spent down within 6 months and about three-quarters within 2 years (table 3). Residents under age 65 were especially likely to have been admitted with Medicaid (not shown). Consequently, spend-down rates were slightly higher for residents 65 and older than for all residents. Twelve percent of all elderly residents and 19.9 percent of elderly Medicaid residents in January 1987 had spent down to Medicaid (not shown).

Most of the residents who had spent down by January 1987 had been in a nursing home for a long time. The majority (57.7 percent) had been residents for more than 2 years, and 27.9 percent for more than 5 years (table 4). In this respect the spend-down population was similar to

TABLE 3
Time from Admission to Medicaid Eligibility of Nursing-home Residents
Who Spent Down to Medicaid, January 1987

Months to spend down	Percent of Medicaid residents ^a
Less than 2	21.7
2-3	15.5
4-6	12.8
7-12	12.8
13-24	14.8
25-36	6.4
More than 36	16.1

Source: 1987 National Medical Expenditure Survey, Institutional Population Component.

^a Percentages are out of an estimated 163,000 Medicaid residents on January 1, 1987.

all other Medicaid residents, but rather different from private-pay patients who had not spent down by January 1987. Only 12.7 percent of private-pay residents had been in the nursing home more than 5 years. About a quarter of private-pay patients had been in a nursing home 6 months or less, compared with fewer than a tenth of those who spent down.

Spend-down During Previous Nursing-home Stays

Our estimates of Medicaid spend-down trace beyond the most recent admission and the current stay, back to the beginning of the episode of care in a given nursing home. By identifying spend-down that occurred before the most recent admission, we expected to find a higher percent of residents who had spent down than estimates based on the most recent admission. This turned out to be the case. Of residents in January 1987, 9.2 percent were private-pay patients at the admission to their most recent stay and then spent down to Medicaid (not shown). An additional 1.9 percent had spent down during an earlier stay that was part of the same episode. Thus, the effect of analyzing episodes within a

TABLE 4
Time Since Admission of Nursing-home Residents by Payment Source,
January 1987

Time since admission (months)	All	Medicaid, admitted as			Private pay	Medicare and other
		Medicaid	Private pay	Other		
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
3 or less	10.2	6.9	3.3 ^a	3.6 ^a	14.7	41.2
4-6	8.1	6.9	5.8	5.2 ^a	11.0	6.0 ^a
7-12	13.2	11.9	10.2	8.2 ^a	16.9	6.9 ^a
13-24	18.8	17.6	23.0	20.2	19.7	9.1 ^a
25-36	13.0	12.5	15.0	12.3	13.2	12.3
37-60	15.3	17.2	14.8	27.9	11.9	12.4
More than 60	21.3	27.0	27.9	22.6	12.7	12.1

Source: 1987 National Medical Expenditure Survey, Institutional Population Component.

^a SE $\geq$ 30%.

given nursing home was to increase the estimate of the spend-down population from 9.2 percent to 11.1 percent of all residents.

Although our estimates trace back to the beginning of the episode of care in a particular nursing home, they do not identify residents who spent down in a different nursing home during their current episode or who spent down in a previous episode. The majority (61.3 percent) of those with Medicaid at the start of the episode in their current nursing home had never before been in a nursing home. However, as shown in table 5, 17.1 percent of residents admitted to their current nursing home with Medicaid were transferred from another nursing home where they might have already spent down. Another 21.6 percent had experienced an earlier nursing-home episode but were not transferred from another nursing home. NMES does not provide enough retrospective information to determine whether these residents had previously spent down during an earlier episode of care in this or another nursing home.

Thus, although our estimates of Medicaid spend-down for episodes of care in a given facility represent an advance over estimates that are limited to spend-down for the most recent stay, our estimates omit residents who spent down during prior episodes of care. They understate to

TABLE 5
Prior Nursing-home Use and Location at Admission of Nursing-home
Residents by Payment Source in January 1987

Resident status	All	Medicaid, admitted as			Private pay	Medicare and other
		Medicaid	Private pay	Other		
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Had prior nursing-home use, admitted from:						
Community	37.1	38.7	33.6	49.3	34.3	44.5
Hospital	9.7	9.4	10.8	2.2 ^a	10.7	5.6 ^a
Another nursing home	11.3	10.4	7.8	37.0	9.9	21.8
Other facility	14.8	17.1	13.8	9.1 ^a	12.6	16.7
	1.4	1.8	1.2 ^a	1.1 ^a	1.1	0.4 ^a
Had no prior nursing-home use, admitted from:						
Community	62.9	61.3	66.4	50.7	65.7	55.5
Hospital	42.8	42.5	52.4	9.2 ^a	45.9	17.6
Other facility	17.7	15.5	11.8	40.2	18.4	34.7
	2.4	3.3	2.2 ^a	1.3 ^a	1.3	3.2 ^a

Source: 1987 National Medical Expenditure Survey, Institutional Population Component.

^a SE $\geq$ 30%.

an unknown degree the true extent of spend-down for current Medicaid enrollees. Fortunately, this uncertainty about prior spend-down is not important in simulating proposed public insurance benefits for nursing-home care because only recent spend-down matters in the simulations.

The Effect of a New Public Insurance Program

The preceding estimates indicate that just over three-fifths of nursing-home days are entirely or partly paid for by Medicaid. Private-pay patients account for all but 3 percent of the remainder. How would this picture change if the federal government were to adopt a new public entitlement that provided either a front-end benefit covering the first few

months of care or a back-end benefit covering nursing-home use after an extended waiting period?

The effect of either type of proposal depends on the distribution of nursing-home days according to the length of time that each resident has been institutionalized. A front-end benefit would cover only residents who were in the first few months of a nursing-home episode. In addition, by postponing the need to finance care out of a nursing-home user's income or assets, a front-end benefit would further reduce Medicaid days by keeping some users from qualifying until later in the episode. Thus, on any given day, some residents who had recently spent down to Medicaid under current policy would still be private-pay under a front-end entitlement because the new benefit would delay their spend-down. If the front-end benefit were limited to 6 months, only residents who had spent down within the preceding 6 months would be affected.

Coverage under a back-end benefit would be limited to relatively long episodes of nursing-home care. Only residents who had been in a nursing home longer than the waiting period specified for a back-end benefit would be covered by the new benefit. All others would be financed by whatever sources currently pay for their care.

To illustrate the effects of these two financing strategies, we simulated financing both under a front-end benefit that would cover the first 6 months of an episode of care and under a back-end benefit with a 24-month waiting period. In simulating the magnitude of these effects, we assumed that if a front-end benefit were implemented, it would replace the nursing-home benefit currently offered by the Medicare program, which averages about 22 days per stay (Latta and Keene 1989). Therefore, we assumed that a 6-month benefit would add only 5 months of new public coverage to the beginning of episodes currently started on Medicare. We assumed that the back-end benefit would supplement, but not replace, Medicare's current short-term benefit for skilled care following hospital stays.

We assumed that prior episodes of nursing-home care would not affect a person's eligibility for the new benefits. In other words, the front-end benefit would be renewable for multiple episodes, as long as they were separated by a period of time in the community. This is similar to the front-end benefit currently available under Medicare and in keeping with the proposals advanced by the Pepper Commission and Senator Kennedy.

We also assume that the back-end benefit would require a new waiting period for each episode of care. This seems to be consistent with the way the Mitchell bill is written, for example, with benefits that begin after two years, and no apparent reduction for earlier episodes of care. However, a back-end benefit could be designed with a deductible that applied only once to all nursing-home days accumulated over a person's lifetime. The simulations of back-end coverage presented here understate the number of people who would be covered under such a lifetime benefit.

Given our assumptions, information about nursing-home use and payment sources prior to the current episode of care is not necessary for the simulations. However, information on prior stays in other nursing homes that were part of the *same* episode of care is still needed. Because this information was not available, the simulations make several assumptions about prior use that we estimate could affect only a small percentage of residents. For simulations of a front-end benefit, we assume that residents who were transferred from another nursing home would have already exhausted the front-end benefit during the prior stay. This assumption affects the simulated payment sources of only 2 percent of residents, namely, transfers admitted to their current home in the 6 months prior to January 1, 1987.

In addition, less than 0.6 percent of residents were transferred within the preceding 6 months and were admitted with Medicaid. We ignore the possibility that they might have spent down within the preceding 6 months (in the prior facility). There is also a small but unknown percentage of residents who were recently admitted from a hospital and were in a different nursing home prior to their hospitalization, where they would have used at least part of their front-end benefit. This, too, is ignored.

For the back-end benefit, the simulations assume that residents transferred from another nursing home would qualify for the back-end benefit by virtue of their earlier stay. This could only affect the payment sources of transfers admitted to their current home in the 2 years preceding January 1, 1987. They amount to 6 percent of all residents.

Under these assumptions, we estimate that 16 percent of nursing-home residents would be covered on any given day by a universal benefit that applied to the first 6 months of nursing-home use (table 6). The relatively small proportion who would be covered by the new benefit re-

TABLE 6
Simulation of Coverage of Residents Under a Universal Front-end
or Back-end Entitlement for Nursing-home Care

Payment source under current system	Total (%)	Payment source under proposed policy (%)			
		New benefit	Medicaid	Medicare or other	Private
Front-end entitlement (6-month benefit)					
Total	100	16	52	2	30
Medicaid	61	7	52	0 ^a	2
Medicare or other	3	1	—	2	—
Private	36	8	—	—	28
Back-end entitlement (24-month waiting period)					
Total	100	56	22	2	20
Medicaid	61	38	22	—	—
Medicare or other	3	1	—	2	—
Private	36	16	—	—	20

Source: 1987 National Medical Expenditure Survey, Institutional Population Component.

^a Less than 0.5%.

flects the small proportion of residents who were recently institutionalized; as shown in table 4, more than four-fifths of residents have been in their current nursing home for more than 6 months.

The proportion with Medicaid coverage would drop from 61 percent under current policy to 52 percent under the new front-end benefit. Most of the decline in Medicaid coverage consists of Medicaid residents who would qualify for the new benefit. Reflecting the limited extent of asset spend-down and the often short time to spend down, just 2 percent of all residents (and 3 percent of those on Medicaid, not shown) would shift from Medicaid to private-pay status on any given day, as the new benefit extended the time from admission until Medicaid eligibility.

The proportion of private-pay patients on any given day would be reduced from 36 percent to 30 percent. Reflecting the differences in the length of stay of residents currently covered by different payment sources, nearly one-quarter of all private-pay residents would qualify for

the new benefit, compared with about 1 out of 10 Medicaid residents. As a consequence, half of the residents covered by the new benefit would be drawn from residents who are private-pay patients and slightly less than half from Medicaid residents.

The effect of the back-end benefit would be substantially different. First, because many residents have been in the nursing home for several years, a much higher proportion of residents (56 percent) would qualify for a benefit with a 24-month waiting period for each episode of care. If the waiting period applied to all prior nursing-home use accumulated over a person's lifetime, then the upper bound for the proportion of nursing-home residents covered by the new benefit is 70 percent. (This figure, not shown, assumes that all residents with *any* prior use would qualify.) Second, because more long-stay residents are covered by Medicaid, the back-end benefit would extend coverage to relatively more Medicaid residents than private-pay residents. Thus, while the number of private-pay residents would drop from 36 percent to 20 percent of all residents, the number of residents covered by Medicaid would drop from 61 percent to 22 percent. Less than half of private-pay patients would qualify for the new benefit, compared with over three-fifths of Medicaid patients. As a result, more than two-thirds of persons covered by the new benefit would be drawn from the Medicaid program.

To examine the effect of altering the length of the front-end benefit or the waiting period for a back-end benefit, we performed the same simulations under a range of benefit assumptions (table 7). Cutting the front-end benefit in half (reducing it from 6 to 3 months) would approximately halve the proportion of covered residents; doubling the benefit to 12 months would nearly double the proportion of covered residents. The front-end benefit would have to be lengthened to as long as 36 months before it would cover the same proportion of residents as a back-end benefit with a 24-month waiting period.

Given the long stays that are associated with a large proportion of residents (and patient-days), the proportion of residents covered by a back-end benefit is large—even with a long waiting period. For example, even a waiting period that was as long as 36 months would allow coverage of 44 percent of nursing-home residents. Shorter waiting periods would extend coverage to an increasingly large proportion of residents, with 91 percent covered under a waiting period of only 3 months. Because many of the residents covered by a back-end benefit would be

TABLE 7
Simulation of Alternative Front-end or Back-end Entitlements
for Care of Nursing-home Residents

	Public payment (%)				Private pay (%)
	New benefit	Medicaid	Medicare and other	Total	
Current policy	—	61	3	64	36
Front-end entitlement					
Benefit limit					
(months)					
3	9	56	2	67	33
6	16	52	2	70	30
12	28	45	2	75	25
24	45	35	1	81	19
36	57	28	1	86	14
Back-end entitlement					
Waiting period					
(months)					
3	91	3	1	95	5
6	84	7	1	92	8
12	72	13	1	86	14
24	56	22	2	80	20
36	44	29	2	76	24

Source: 1987 National Medical Expenditure Survey, Institutional Population Component.

drawn from those already covered by Medicaid, the net increase in the proportion of residents with public financing would be much smaller than the proportion covered by a new benefit. For example, moving from a 36-month to a 3-month elimination period only increases the proportion of publicly financed residents by 19 percent (from 76 to 95 percent).

By the same token, lengthening the front-end benefit would not mean as large an increase in new expenditures as the proportion of covered residents might seem to imply. Although the proportion of residents who would shift to private-pay instead of spending down (or going on the new benefit) would remain roughly constant at about 2

percent (not shown), a longer front-end benefit would draw more heavily from residents who were already covered by Medicaid. For example, about a third of residents covered by a 3-month benefit would otherwise be covered by Medicaid, compared with just over half of residents covered by a 36-month benefit (not shown). Consequently, while 9 percent of residents would be covered by a 3-month front-end benefit and 57 percent by a 36-month benefit, the net increase in those with public financing would amount to 19 percent of all residents.

The front-end and back-end strategies differ in the extent to which they substitute for Medicaid. For example, a back-end benefit with a 36-month waiting period would extend public financing to about the same proportion of residents as a 12-month front-end benefit (75 to 76 percent). The back-end benefit would cover more than half again as many residents, but there is a much greater offsetting reduction in Medicaid residents.

Discussion

Our estimate of asset spend-down using the 1987 National Medical Expenditure Survey is somewhat higher than previous national estimates based on the 1985 National Nursing Home Survey. However, both surveys indicate that only a small part of Medicaid enrollment in nursing homes is attributable to asset spend-down. Estimates from the National Nursing Home Survey by Spence and Wiener (1990) are that 14 percent of elderly nursing-home residents on Medicaid were admitted as private-pay patients. The comparable NMES estimate for the elderly is 20 percent of Medicaid residents. Studies reporting similar statistics for specific states, which may not be representative of the national experience, report higher rates of spend-down among Medicaid recipients. Farbstain and Gruenberg (1989) indicate that 26 percent of current Medicaid residents in Massachusetts were admitted as private-pay patients, and Gruenberg et al. (1989) report that such patients account for half of all Medicaid days in Connecticut. Arling et al. (1991) report that spend-down enrollees account for 35 percent of Medicaid days in Wisconsin. Burwell, Adams, and Meiners (1989) report that 25 percent of Medicaid nursing-home expenditures in Michigan are attributable to asset spend-down.

Because there is relatively little asset spend-down, because most residents who have spent down do so rather quickly, and because most

nursing-home residents have been institutionalized for some time, a front-end public benefit would not keep many nursing-home residents from qualifying for Medicaid. A back-end benefit, regardless of the length of the waiting period, would target the long-stay patients who are most likely to be covered by Medicaid and would result in a much larger offset in Medicaid expenditures. If the federal government paid a larger share of the cost of a new benefit than its share of Medicaid, then both state Medicaid expenditures and the total net cost per enrollee would be reduced by targeting residents who are already on Medicaid.

Although we are currently unable to calculate the actual dollar amount of the Medicaid offset or the approximate net cost of either type of financing proposal, it is clear from our estimates of the number of residents who would be affected that a back-end benefit would be more costly in total. Assuming no change in the present structure of Medicaid, the net increase in enrollment in public programs under a front-end benefit with a 6-month limit would be 6 percent of nursing-home residents. A waiting period much longer than any that we simulated would be necessary to reduce a back-end benefit to that level. Sixteen percent of nursing-home residents would be added to public programs under a back-end benefit with a waiting period of 24 months, 12 percent with a waiting period of 36 months.

Policy interest in Medicaid spend-down stems from two different sets of concerns—the concerns of private individuals and concerns about public budgets. Individuals worry about incurring nursing-home costs large enough to spend down to Medicaid eligibility, signifying a loss of financial independence and bringing the stigma of welfare. Public officials worry about spend-down because it affects the number of people eligible for Medicaid and therefore state and federal outlays for nursing-home care.

To quantify the risks that concern individuals, it is appropriate to measure asset spend-down among discharge or admission cohorts or, even better, population cohorts over their lifetime (Liu and Manton 1991). Analysis of discharges and admissions has been the focus of much of the research that has attempted to quantify spend-down (Arling et al. 1991; Branch et al. 1988; Liu and Manton 1989; Bice 1990; Gruenberg et al. 1989; Farbstein and Gruenberg 1989; Liu, Doty, and Manton 1990; Sekscenski 1987; Spence and Wiener 1990). There has been somewhat less emphasis on measuring spend-down for current residents or for patient-days (Arling et al. 1991; Rice 1989; Burwell,

Adams, and Meiners 1990; Farbstein and Gruenberg 1989; Gruenberg et al. 1989; Spence and Wiener 1990). However, the budgetary implications of Medicaid spend-down and alternative public financing arrangements are appropriately addressed by analyzing current residents or patient-days. Particularly important is the fact that resident samples and patient-days give appropriate weight to the long-stay patients who account for a large share of nursing-home days and, therefore, of public and private expenditures for nursing-home care.

It is important to distinguish between individual and budgetary concerns with respect to spend-down. Our discussion illustrates the policy significance of this distinction through simulations of the effects of proposed changes in public coverage of nursing-home care. These simulations indicate that only one out of six nursing-home residents would be covered on any given day by a benefit limited to the first 6 months of nursing-home use. This implies that only one out of six *patient-days* would be covered. However, every single *person* who was ever admitted to a nursing home would benefit from this type of public coverage, and every instance of spend-down would be postponed. By the same token, our simulations show that about three-fifths of all nursing-home days and all Medicaid days would be covered by a back-end benefit with a 24-month waiting period, which is much larger than the proportion of nursing-home users or episodes qualifying for coverage under such a benefit.

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