



Repeal of the “Boren Amendment”: Implications for Quality of Care in Nursing Homes

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From 1980 to 1997, federal law directly linked Medicaid nursing home rates with minimum federal and state quality of care standards. As part of the Omnibus Reconciliation Act of 1980, the “Boren amendment” required that Medicaid nursing home rates be “reasonable and adequate to meet the costs which must be incurred by efficiently and economically operated facilities in order to provide care and services in conformity with applicable state and federal laws, regulations, and quality and safety standards” (Section 1902(a)(13) of the Social Security Act). State Medicaid officials overwhelmingly came to oppose the amendment as impossible to operationalize, believing that they were forced by the courts to spend too much on nursing homes at the expense of other services.

The federal Balanced Budget Act of 1997 repealed the Boren amendment, giving states far greater freedom in setting nursing home payment rates. The nursing home industry warned that Medicaid reimbursement levels already are too low, and that further reductions would adversely affect quality of care. Indeed, poor-quality nursing home care is gaining increasing attention. For example, in response to a recent General Accounting Office report identifying

glaring quality of care deficiencies in California nursing homes, the U.S. Senate Special Committee on Aging held critical hearings on nursing homes and their regulators, and President Clinton unveiled tougher enforcement standards.¹

Despite nursing home industry claims that low payment rates inhibit quality of care, Medicaid rates for nursing facility care are a logical target for states trying to reduce the growth rate of long-term care expenditures. Nursing home care accounted for 20 percent of Medicaid expenditures in 1996. Whereas the financial effect of reforms such as expanding home and community-based services and integrating acute and long-term care

is uncertain, with savings likely to occur some time in the future, the impact of nursing home rate reductions on state budgets is predictable, immediate, and potentially large. Similarly, with nearly 70 percent of nursing home residents dependent on Medicaid to pay for their care, it is hard to overstate the importance of Medicaid to the nursing home industry.²

As states gain freedom to cut nursing home reimbursement, it becomes more important to understand whether and how these changes might affect quality of care in nursing homes.

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The question for state policymakers is whether and to what extent goals of quality assurance and cost control are compatible. In particular, can states reduce Medicaid nursing home payment rates without jeopardizing quality? To aid policymakers faced with this decision, this policy brief reviews the research literature (most of which is very old) pertaining to the relationship between financing and the quality of long-term care.

Reimbursement and Quality

Research on reimbursement and its potential impact on quality of care generally focuses on two broad areas of concern. First, what is the relationship between the costs of long-term care and quality of care? This policy question is motivated largely by the arguably low rates paid by Medicaid. Like most other areas of Medicaid policy, nursing home reimbursement levels and methods vary dramatically by state (table 1). Average Medicaid nursing home reimbursement rates for 1998 vary from a low of \$62.58 per day in Nebraska to a high of \$329.62 per day in Alaska. Second, does the method of payment (e.g., flat rate, prospective payment, casemix adjustment), independent of its level, affect quality of care? This question is potentially very important because government policymakers have considerable control over these policy levers.

Level of Cost, Payment, and Quality

Although measuring cost and payment levels is comparatively straightforward, measuring quality of care is not, and how it is assessed can significantly affect the results of studies examining the relationship between the two. Most studies have analyzed the relationship between cost (or payment) and quality by using some form of input (e.g., staffing levels) or process indicator as the measure of quality. Using 1995–96 On-Line Survey Certification and Reporting (OSCAR) system data, Harrington et al. found a small but positive relationship between the amount of Medicaid reimbursement and nurse staffing levels (except for nurse assistants). Facilities with higher staffing

levels also had fewer certification deficiencies.³ However, using structural measures of quality can be problematic because increased inputs imply, almost by definition, higher costs. That is, a positive relationship between inputs and costs is likely, regardless of whether there is a relationship between costs and “quality.” Several studies have found that higher reimbursement was associated with higher staffing but failed to find a significant relationship for other measures of quality.⁴ For instance, Zinn found that higher reimbursement was associated not only with higher registered nurse staffing, but, surprisingly, also with more use of restraints and a greater proportion of residents who were not toiletied.

Only a few studies have examined the relationship between facility costs and quality using outcomes-based quality measures, and these have been quite limited. Using 1983 data from Iowa, Nyman found that costs were not significantly greater in nursing homes with higher quality as measured by various outcomes (including residents wearing clean clothing, being fully dressed, and having clean hair).⁵ At the same time, these outcome measures of quality were found to be associated with nursing time per patient. Similarly, using 1987 National Medical Expenditure Survey data, Cohen and Spector did not find a statistically significant relationship between reimbursement level and outcomes-based quality measures (including mortality, change in functional status, and presence of decubitus ulcers), but did find a positive relationship between reimbursement level and staffing intensity.⁶ Many aspects of quality care (e.g., staff attitude and administrative philosophy) apparently do not require large expenditures and are not significantly related to facility costs.⁷ Thus, improved quality might not necessarily imply higher costs, and poor quality might not simply be a result of inadequate resources.

These results illustrate the complexity of the relationship among costs, inputs, and outcomes and the dilemma for states in trying to establish payment rates adequate to produce quality care. Both analyses found a relationship between cost/reimbursement level and staffing intensity, and both analyses

found that professional staffing had a positive and significant relationship to quality of care in terms of outcomes.⁸ However, the effects of higher cost/reimbursement on staffing and of staffing on outcomes were not large enough for cost/reimbursement to have a statistically significant impact on quality as measured by outcomes.

Method of Reimbursement and Quality

Setting Medicaid reimbursement rates for long-term care is one way states control expenditures and shape the long-term care market. To achieve savings, states focus not only on the overall level of reimbursement but also on the payment methodology used to pay long-term care providers. These policies differ most fundamentally on two levels: whether they base payment on facility-specific costs or on a set of flat rates (set independently of an individual facility’s costs) and whether rates are set retrospectively or prospectively.

Facility-specific rates (set either prospectively or retrospectively) are based on an individual facility’s costs, usually up to some ceiling. Under this type of payment, higher-cost facilities receive higher payments than lower-cost facilities. Under flat rates, nursing homes are paid a rate that is not based on the individual facility’s costs. Typically, flat rates are based on the cost experience of all facilities in an area (sometimes adjusted for facility or patient characteristics such as the casemix of a nursing home).

Under retrospective payment, nursing homes receive a facility-specific interim payment rate based on costs for some base year, with adjustment for inflation. If the actual costs (usually up to some ceiling) are different from the interim rate, either the state pays the facility or the facility pays the state the difference. This methodology encourages facilities to spend more (perhaps improving quality) because they can be reimbursed for their expenses, although ceilings on allowable costs and lags in altering rates apply a brake on the incentive for facilities to increase spending.

Almost all states use prospective payment systems to pay nursing homes. Under prospective payment, providers receive a rate set in advance for a bundle

Table 1
Nursing Home Reimbursement across 50 States and
the District of Columbia, 1998

	Per Diem Rate ^a	Method of Reimbursement ^b	Casemix Adjusted ^b	Ancillaries Included ^{b,c}
Alabama	\$98.96	prospective facility-specific	no	basic
Alaska	329.62	prospective facility-specific	no	1
Arizona	97.39	prospective facility-specific	yes	1, 2
Arkansas	63.99	prospective patient-specific	yes	1, 2
California	83.04	prospective flat-rate	no	basic
Colorado	98.00	prospective facility-specific	no	1, 2
Connecticut	130.00	prospective facility-specific	no	1, 2
Delaware	97.00	prospective patient-specific	yes	1, 2, 3 ^d
District of Columbia	210.35	prospective facility-specific	no	1, 2
Florida	94.38	prospective flat-rate	no	1
Georgia	75.26	prospective facility-specific	no	1, 2
Hawaii	150.00	prospective facility-specific	no	basic
Idaho	94.20	prospective facility-specific	no	1, 2
Illinois	77.63	prospective facility-specific	yes	1, 2
Indiana	86.43	prospective facility-specific	no	1
Iowa	69.50	prospective facility-specific	no	2
Kansas	78.11	prospective facility-specific	yes	1, 2
Kentucky	83.42	prospective facility-specific	yes	1
Louisiana	65.24	prospective flat-rate	no	2
Maine	105.85 ^b	prospective facility-specific	yes	2
Maryland	106.62	prospective patient/facility-specific	yes	1
Massachusetts	109.52	prospective patient/facility-specific	yes	basic
Michigan	95.00	prospective facility-specific	no	2
Minnesota	101.71	prospective patient/facility-specific	yes	2
Mississippi	79.85	prospective facility-specific	yes	2
Missouri	86.00	prospective facility-specific	no	1, 2
Montana	87.54	prospective facility-specific	yes	basic
Nebraska	62.58	retrospective facility-specific	yes	basic
Nevada	110.51	prospective facility-specific	yes	basic
New Hampshire	111.94	prospective facility-specific	no	1, 2
New Jersey	104.93	prospective facility-specific	yes	1, 2
New Mexico	92.10	prospective facility-specific	no	1
New York	165.80	prospective facility-specific	yes	1, 2, 3
North Carolina	95.12	combination facility-specific	no	1, 2
North Dakota	94.00	prospective facility-specific	yes	1, 2
Ohio	107.00	prospective facility-specific	yes	1, 2
Oklahoma	64.20	prospective flat-rate	no	1, 2
Oregon	89.05	prospective facility-specific	no	1
Pennsylvania	114.12	retrospective	yes	1, 2
Rhode Island	125.86	prospective facility-specific	no	1
South Carolina	84.04	prospective facility-specific	yes	1
South Dakota	79.93	prospective facility-specific	yes	1, 2, 3
Tennessee	77.91 ^b	combination facility-specific	no	1
Texas	75.40	prospective patient-specific	yes	1, 2
Utah	80.60	prospective facility-specific	no	1, 2
Vermont	94.24 ^b	prospective facility-specific	yes	1
Virginia	78.12	combination facility-specific	yes	1
Washington	114.31	prospective facility-specific	no ^e	1
West Virginia	97.00	prospective facility-specific	yes	1
Wisconsin	91.00	prospective facility-specific	yes	2
Wyoming	93.84	prospective facility-specific	no	1, 2

Sources:

- American Health Care Association. *Nursing Facility Sourcebook: Facts and Trends, 1998.*
- C. Harrington et al. *1996 State Data Book on Long-Term Care Program and Market Characteristics.*
- Most states include ancillary services such as nonprescription drugs and medical supplies in their rates. States vary more widely in their inclusion of the following ancillary services in the calculation of rates:
 - physical, occupational, speech, or respiratory therapy
 - durable medical equipment
 - prescription drugs
 "basic" does not include 1, 2, or 3
- In Delaware, these ancillary services are only included in the rate for public facilities (3 of the 35 facilities in the state).
- Washington recently adopted a patient-specific casemix reimbursement system.

of services, without adjustment for actual costs. As with a capitated payment for managed care, providers are at financial risk if facility costs exceed payments; alternately, providers can keep the surplus as profits should payments exceed their costs. Facility-specific prospective and flat-rate systems provide greater incentives for facilities to be efficient than retrospective systems do, because nursing home profits are the difference between their payment and their expenses. To the extent that facilities make money by curtailing services, quality may be adversely affected, which theoretically should be more of a problem for flat-rate systems because there is no relationship between an individual facility's costs and its reimbursement. In contrast, facility-specific prospective payment systems periodically recalculate a facility's costs. Thus, if a facility dramatically reduced its costs, its future rate would also be reduced, limiting the extent to which reducing costs is in the nursing home's interest.

Empirical studies tend to support these theoretical expectations. Using cost report data from eight states from 1978 to 1980, Holahan and Cohen found strong evidence that the cost-containment incentives in state reimbursement systems appeared to have a real impact on cost increases: Prospective and flat-rate systems generally reduced cost growth more than retrospective payment.⁹ Aggressive cost-control strategies were also found to have a constraining effect on spending for patient-related services (and therefore might adversely affect patient care).¹⁰ Patient-related costs were constrained more than nonpatient-related costs in reimbursement systems with stronger cost-controlling incentives. At least in the short term, cost-containment measures did not negatively affect access for Medicaid patients. In light of their findings, Holahan and Cohen recommended that states separate costs into three components—patient-care-related, noncare-related, and capital—to identify and more readily eliminate “unnecessary” cost growth.

Using 1981 Medicare and Medicaid Automated Certification Survey files and Medicare cost reports, Cohen and Dubay found that as cost-containment incentives (e.g., the use of

flat-rate payments) became stronger, nursing homes responded by decreasing the severity of their casemix (e.g., by limiting access for heavy care patients) and decreasing staffing levels.¹¹ Nursing homes in states that paid flat rates had fewer nurses per bed than similar homes in cost-based reimbursement states. In addition, access for Medicaid patients was worse in states with flat-rate reimbursement and better in states with prospective reimbursement. Finally, prospectively paid nursing facilities did not have costs significantly different from retrospectively paid facilities. However, facilities that were paid flat rates under Medicaid did have significantly lower costs.

Prospective payment also can affect patient care services differently, depending on the bundle of services included in the unit of payment. For example, prospective payment may or may not include ancillary services such as prescription drugs and therapy services. In a study of five states that used the 1996 nursing home minimum data set, Moore and White compared New York—which includes prescription drugs in its prospective payments for nursing homes—with four states that reimburse prescription drugs on a fee-for-service basis (i.e., separate from the prospective rate).¹² The study found that prescription drug utilization for the treatment of selected medical conditions was significantly lower in New York than in the comparison states, suggesting that nursing homes responded to financial incentives of the fixed payment.

Casemix Reimbursement. One variation of flat-rate reimbursement that many states have adopted is casemix reimbursement. An undesirable incentive of pure flat-rate payments (and to a lesser extent, of facility-specific methodologies) is for nursing homes to avoid patients who are severely disabled, as reimbursement is no greater for patients with heavy care needs than for patients with light care needs. Casemix reimbursement systems are designed to mitigate the effects of these perverse incentives by matching the payment level to an individual's care needs. Under casemix reimbursement, nursing homes receive higher reimbursement when individuals require more services. The major theoretical strength

of casemix reimbursement is that it should make nursing homes indifferent to the relative care needs of the individuals they admit.

Despite these advantages, casemix reimbursement also creates disincentives for nursing homes to rehabilitate patients (because they are paid more for more disabled residents) or to provide services that diminish their profits (because profits are the difference between reimbursement and expenditures). These systems also have incentives to misreport resident conditions or services received. In their analysis of 1987 data from six states, Butler and Schlenker found some evidence that these problems did in fact occur and concluded that casemix reimbursement systems must include explicit ways to measure and ensure quality of care.¹³ In their review of the casemix reimbursement literature, Weissert and Musliner concluded that casemix payment by itself generally did little to improve quality of care.¹⁴ Disappointingly, higher casemix payments were not necessarily used to increase nursing home staffing levels. In contrast, the research is more positive on the use of casemix systems to improve access to care, although improving access for heavy care patients can create access difficulties for light care residents (who arguably should be served outside nursing homes).

Reimbursement Incentives to Improve Quality of Care. Some researchers have proposed that reimbursement be linked directly to quality of care. Because nursing homes respond to cost-containment mechanisms of differing reimbursement systems, Zinn reasoned they would respond similarly if quality indicators were linked to payment.¹⁵ Pointing out that reimbursement and quality assurance are typically defined by independent systems with separate objectives, Shaughnessy and Kurowski explored the theoretical dimensions of linking reimbursement and quality assurance and detailed several areas of research that need to be addressed before this linkage is possible, including the development of better process and outcome measures, identification of quality norms, and development of incentives to change provider behavior.¹⁶ Although this article was written 16 years

ago, most of the same limitations in the research base still remain today.

There have been some experiments with outcomes-based incentives. A demonstration in San Diego in the early 1980s tested the effectiveness of monetary incentives on improving the health of nursing home residents and reducing Medicaid expenditures. These incentives for improved outcomes had beneficial effects on quality, access, and number of hospital transfers.¹⁷ Other initiatives in Illinois, Connecticut, and Michigan have not been evaluated.

Limited Nursing Home Bed Supply and Quality of Care

Several studies done in the 1970s and early 1980s found a strong relationship between poor quality and a high percentage of Medicaid residents in nursing homes.¹⁸ These results are often interpreted as evidence that Medicaid nursing home reimbursement rates were too low to provide good-quality care. If that were the case, the quality of care problem could be alleviated simply by raising Medicaid reimbursement rates.

An alternative explanation is that the relationship between low quality and homes that are heavily dependent on Medicaid is attributable to an insufficient supply of nursing home beds available for Medicaid residents (i.e., excess demand), which means that facilities need not compete by providing high-quality care.¹⁹ Excess demand exists when not enough beds are available for patients demanding care at a given market price, a condition that may be optimal for both the state and the nursing homes, if not for residents. Nursing homes typically charge two different rates—one for Medicaid residents and a higher one for private-pay residents (Minnesota and North Dakota require that nursing homes charge the same rate to private and Medicaid patients). Because private-pay rates are almost always higher than Medicaid reimbursement levels, profit-maximizing nursing homes would rather admit a private-paying individual over an individual supported by Medicaid. In an analysis of data from 43 states for 1969–73, Scanlon found

that excess demand resulted in a segmented nursing home market, with private-paying residents obtaining all desired care and public-paying residents filling any remaining beds.²⁰ If excess demand exists for nursing home beds, it is excess Medicaid demand. Studies done of Wisconsin and the 10 national long-term care channeling demonstration sites in the early 1980s also found evidence of excess demand.²¹

Under excess demand, nursing homes can attract as many Medicaid patients as they want, regardless of quality. Although Medicaid residents prefer higher quality of care, they cannot exercise these preferences under excess demand and must instead choose among the limited number of available beds. Hence, high-quality care is necessary only to attract more private-paying nursing home residents. In a market with a surplus of nursing home beds, however, nursing homes cannot act on their preference to admit private-paying patients over Medicaid-subsidized patients—they will accept either type of patient in order to fill their beds. In this environment, both private- and Medicaid-paying residents would be able to exercise their preference for high-quality care. Consequently, nursing homes should increase quality to attract patients.

Using 1978–79 and 1983 data from Wisconsin, Nyman found evidence to support his theory that excess demand was responsible for lower-quality nursing home care.²² He found that the low-quality–high-Medicaid relationship was stronger under conditions of excess demand. In addition, Nyman found that nursing homes in counties with a surplus bed supply spent more on patient care per empty bed than counties with a tight bed supply. Nyman posited that this evidence cast doubt on the assumption that the high-Medicaid–low-quality relationship resulted simply from lower Medicaid payments. On the basis of a 1987 nursing home survey and certification data, Zinn reached similar conclusions.²³

In addition to quality, the presence of excess demand in the nursing home market creates concern about access to nursing home care, especially for Medicaid patients. Private demand should

not be affected by Medicaid demand or bed supply because private-pay patients will always have admission preference. Using 1982–84 data from the National Long-Term Care Survey and Area Resource data, Ettner found that Medicaid patients had worse access to nursing homes on average, and that this situation seemed to exist mainly in areas in which bed supply was low or private competition for beds was greater.²⁴ In addition, some nursing homes (e.g., Vencor, Inc.) have begun to focus on the private-pay and Medicare market to the exclusion of the Medicaid market.²⁵ Few facilities, however, can afford to exclude Medicaid residents completely because Medicaid pays for the majority of nursing home residents.

There is some evidence that excess demand has declined in recent years. In an evaluation of 1988 data from Wisconsin, Minnesota, and Oregon, Nyman found no evidence of excess demand (this finding for Wisconsin contrasted with his previous analysis of 1983 data).²⁶ In addition, national nursing home occupancy rates declined from 92 percent in 1985 to 88 percent in 1995.²⁷ This decline is particularly remarkable because the ratio of nursing home beds per 1,000 elderly persons aged 85 and over declined by 21 percent between 1978 and 1996.²⁸ Nonetheless, there remains an extremely strong relationship between nursing home bed supply and utilization, leading most states to fear that a higher number of nursing home beds will result in higher Medicaid expenditures.²⁹ As a result, most states control the supply of nursing homes through certificate-of-need programs or moratoriums on new construction or certification for Medicaid.

State efforts to shift the balance of the long-term care system from institutional-based to home and community-based care by expanding home care services and using case management and preadmission screening efforts to encourage placement in settings other than nursing homes may also reduce excess demand. In all but a few states, however, home and community-based services are only a small proportion of Medicaid long-term care expenditures for the elderly. In addition, Medicare home health expenditures have skyrocketed since 1989, and the benefit

has become more long-term-care-oriented. As the availability of home and community-based services increases, nursing homes will have to compete more actively with other types of long-term care providers, such as assisted living facilities and home health agencies, as well as with other nursing homes.

Conclusion

The repeal of federal minimum standards for Medicaid nursing home reimbursement gives states additional flexibility in determining how to set payment rates but, by itself, does not alter state policy. Instead, the impact of the repeal will depend on how much states choose to alter nursing home payment in the changed statutory environment. So far, a booming economy and a low rate of increase in Medicaid expenditures have meant that few states have needed to find large Medicaid savings. Although the nursing home industry is politically powerful in most states and may succeed in blocking substantial rate reductions in the future, nursing homes and some resident advocates across the country are still concerned that the Boren amendment's repeal will ultimately result in reimbursement rate cuts that adversely affect quality of care. Moreover, any Medicaid payment reductions will be in addition to the Medicare skilled nursing facility cuts and reimbursement changes enacted as part of the Balanced Budget Act of 1997.³⁰ Reimbursement reductions are of considerable concern because there is already evidence of significant quality of care problems in nursing homes.

The impact of potential financing changes on the quality of long-term care is difficult to assess. Almost all the research literature on the relationship between financing and quality of nursing homes is based on very old data and does not reflect the regulatory changes required by the Omnibus Budget Reconciliation Act of 1987. Most studies on the topic were published in the mid- to late 1980s and relied on data from the late 1970s and early 1980s. Moreover, several studies discussed in this brief focused on data from one or a few states, making it hard to generalize to the nation as a whole. In addition, the measures of

quality in most of these studies were quite rudimentary, especially in terms of outcomes.

For states seeking Medicaid savings by lowering nursing home rates, the available research does not offer conclusive evidence about the level of reimbursement needed to provide adequate quality of care. Logic dictates that there is some minimal level of reimbursement below which it is impossible—or at least unacceptably difficult—to provide good-quality care. That assumption was the premise of the Boren amendment; the problem was that nobody could ever specify in any scientific way what that level of reimbursement was.

Nursing homes often complain that current Medicaid rates are too low to provide high-quality care and that reduced payments will adversely affect quality. A dilemma for policymakers is that a dollar's worth of increased Medicaid reimbursement will generate less than a dollar's worth of quality improvement. Higher rates might be diluted in ways—including administrative expenses, profits, and inefficiency—that do not improve resident outcomes. And while it seems intuitive that it should cost more to provide higher quality of care, this is not necessarily the case. Higher-cost facilities generally have higher levels of inputs, but many elements of "quality" are costless. Instead of hoping to achieve quality indirectly through more generous reimbursement, a more effective way to improve quality of care may be through a regulatory approach that requires increased care inputs (e.g., staffing). Fairness, however, requires that states be willing to pay for the cost of new regulatory requirements.

Beyond the level of reimbursement, state choices in method of reimbursement are likely to affect quality of care. Patient care is particularly vulnerable to reimbursement-focused cost-containment efforts such as flat rates, suggesting that states should separate out those elements for more generous treatment. Casemix reimbursement is becoming increasingly popular among states and may improve access for heavy care patients, but it seems to have little positive impact on quality of care. Although casemix systems better match

payment with resident needs, they provide little incentive for improved outcomes: Nursing homes receive higher reimbursement for more severely disabled residents, but they are not required to spend additional funds to provide care. Finally, although linking payment and quality of care would seem conceptually desirable, the technology to implement such systems at the state level is not currently available.

State policymakers also need to be cognizant of the effects that the long-term care market can have on quality of care and its relation to Medicaid reimbursement. Diminished competition as a result of excess demand seems to have a negative impact on quality of care, but the extent to which excess demand still exists in the long-term care market is unclear. States can lower excess demand by increasing the supply of nursing homes and by expanding the supply of home and community-based services, but these changes also would increase the total cost of the long-term care system, implying a cost/quality tradeoff. Moreover, the expansion of nursing home alternatives raises a host of other issues related to quality of care in these settings.

In sum, because quality of care in nursing homes is already problematic, states looking to cut nursing home rates need to be cautious in their quest for Medicaid savings. Though it does seem true that higher rates are not necessarily used to improve patient care and that many elements of quality care do not require higher costs, direct patient care expenditures are particularly vulnerable to rate-reduction initiatives. Lowering Medicaid nursing home reimbursement rates may be especially problematic in states with high levels of excess demand, as nursing homes in those states do not have to compete for patients on the basis of quality. Reducing excess demand would lower the quality risks of reducing reimbursement rates but probably would result in higher Medicaid expenditures as well.

Notes

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This series is a product of Assessing the New Federalism, a multi-year project to monitor and assess the devolution of social programs from the federal to the state and local levels. Alan Weil is the project director. The project analyzes changes in income support, social services, and health programs and their effects. In collaboration with Child Trends, Inc., the project studies child and family well-being.

The project has received funding from The Annie E. Casey Foundation, the W.K. Kellogg Foundation, The Robert Wood Johnson Foundation, The Henry J. Kaiser Family Foundation, The Ford Foundation, The John D. and Catherine T. MacArthur Foundation, the Charles Stewart Mott Foundation, The David and Lucile Packard Foundation, The Commonwealth Fund, the Stuart Foundation, the Weingart Foundation, The McKnight Foundation, The Fund for New Jersey, and The Rockefeller Foundation. Additional funding is provided by the Joyce Foundation and The Lynde and Harry Bradley Foundation through a subcontract with the University of Wisconsin at Madison.

This series is dedicated to the memory of Steven D. Gold, who was codirector of Assessing the New Federalism until his death in August 1996.

Publisher: The Urban Institute, 2100 M Street, N.W., Washington, D.C. 20037

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