

# Do Noninstitutional Long-Term Care Services Reduce Medicaid Spending?

Home and community-based services help people with disabilities stay in their homes while reducing long-term care spending.

by **H. Stephen Kaye, Mitchell P. LaPlante, and Charlene Harrington**

**ABSTRACT:** Medicaid spending on home and community-based services (HCBS) has grown dramatically in recent years, but little is known about what effect these alternatives to institutional services have on overall long-term care costs. An analysis of state spending data from 1995 to 2005 shows that for two distinct population groups receiving long-term care services, spending growth was greater for states offering limited noninstitutional services than for states with large, well-established noninstitutional programs. Expansion of HCBS appears to entail a short-term increase in spending, followed by a reduction in institutional spending and long-term cost savings. [Health Affairs 28, no. 1 (2009): 262–272; 10.1377/hlthaff.28.1.262]

**E**nacted in 1965 to provide health coverage for impoverished Americans, the Medicaid program quickly became a major source of payment for long-term care (LTC) services for elderly and nonelderly people with disabilities. During the program's first two decades, these services were offered almost exclusively in institutional settings, such as nursing homes and facilities for people with intellectual disabilities. In the mid-1980s, however, states began to offer LTC services to people living outside of institutions, through what are known as Home and Community-Based Services Waiver programs and Personal Care Services (PCS) Optional Benefit programs. These two programs, plus the smaller Medicaid Home Health Benefit, are collectively referred to as Medicaid home and community-based services (HCBS); all such programs may offer personal assistance that enables people who need help in performing daily activities to continue to live and thrive in the community, instead of being forced to relinquish their independence and move into an institution.

Pressured by advocates for people with disabilities and the elderly, and com-

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pelled by the Supreme Court's 1999 *Olmstead* decision to offer services in "the most integrated setting" appropriate to the person's needs, many states have created or expanded HCBS programs, offering an alternative to institutionalization for millions of poor or near-poor Americans.<sup>1</sup> As a result, HCBS spending has constituted a steadily increasing share of Medicaid LTC costs, rising at a much more rapid rate than spending on institutional services.<sup>2</sup> The estimated \$35.2 billion spent on HCBS in 2005 amounts to 37.2 percent of the \$94.5 billion national Medicaid LTC expenditure, or 11.7 percent of the \$300.3 billion total Medicaid expenditure.<sup>3</sup> A decade earlier, HCBS spending accounted for only 19.2 percent of Medicaid LTC spending and 6.3 percent of all Medicaid spending.<sup>4</sup>

Although states still spend much more on institutional than noninstitutional LTC, the expansion of HCBS programs has nonetheless been blamed for the overall growth in LTC spending. Opponents of further expansion in HCBS have recently used the continued growth in overall LTC spending to argue that noninstitutional LTC services are not cost-effective, in the sense that they increase rather than reduce overall expenditures.<sup>5</sup>

This paper explores the question of whether states that offer extensive HCBS programs experience greater or lesser growth in Medicaid LTC spending than states in which institutional LTC continues to predominate. We are aware of no similar analyses, although one study compared LTC spending in three states that were offering extensive HCBS with projections of spending in the absence of such programs, and concluded that those states had greatly reduced their spending.<sup>6</sup>

The main issue is not the cost of services per person served. A recent study found that the average total public expenditure on a recipient of HCBS waiver services (who must meet the eligibility criteria for institutionalization) was about \$44,000 less per year than for a person receiving institutional services.<sup>7</sup> Indeed, waiver programs are required to demonstrate cost-neutrality, in that the per participant spending under the waiver cannot exceed the state's estimate of the costs for the same people had they entered institutions.

Instead, the concern is with the aggregate cost, which may grow if increasing numbers of eligible people are served. There is a fear that the introduction of HCBS programs would create a "woodwork effect," in which large numbers of people who previously received help from family members and did not seek institutional services might sign up for the more desirable noninstitutional services, thus increasing the overall costs. The impact of HCBS programs on aggregate Medicaid spending has been studied in several demonstration projects, but results have been inconclusive.<sup>8</sup>

## Data Sources And Methods

**Sources.** State data on Medicaid LTC spending for fiscal years 1995–2005 were obtained from reports submitted by state Medicaid agencies to the Centers for Medicare and Medicaid Services (CMS). States report both institutional spending,

for services provided in either nursing homes or so-called intermediate care facilities for people with mental retardation (ICF/MR), and noninstitutional spending, for services provided through waiver, personal care, and home health programs. Data on nursing home, ICF/MR, personal care, and home health spending were obtained from CMS 64 reports, as compiled annually by the Medstat Group.<sup>9</sup> Data on HCBS waiver spending, by type of waiver, were obtained from CMS 64 reports on individual waiver programs, occasionally corrected with data obtained from CMS 372 reports.<sup>10</sup>

Because spending patterns, including the proportion devoted to HCBS, differ markedly according to the targeted population, we analyzed spending explicitly directed toward people with mental retardation and other developmental disabilities (MR/DD) separately from those primarily directed toward people with other types of disabilities. ICF/MR spending and MR/DD waiver spending are classified as MR/DD spending, while nursing home, non-MR/DD waiver, personal care, and home health spending is classified as non-MR/DD spending.

**Data limitations.** Limitations in these data include occasional incomplete or inaccurate reporting and expenditures reported according to the date of payment rather than the date of service provision, causing year-to-year fluctuations when states delay payment and shift expenditures to the next fiscal year. Furthermore, a limited amount of spending on services provided under capitated managed care programs is not reported; this limitation is mostly an issue for Arizona, which we excluded from the analysis because the bulk of its expenditures are not listed. A few states (most notably Texas) have or had relatively small "frail elderly" programs distinct from the noninstitutional services already mentioned; because data for these programs are available from the Medstat compilations for some years but not others, we omitted these programs from the analysis, too.

In a few cases of missing or incomplete waiver data for particular waivers or states, we interpolated or extrapolated to estimate expenditures. In one case of a suspiciously large expenditure followed by a negative reported expenditure in the subsequent year, we replaced both numbers with their average.

**Facilitating comparisons.** To facilitate comparison across states, we obtained per capita (not per recipient) expenditures for each state by dividing the reported spending by the Census Bureau's population estimate for the state for the given year.<sup>11</sup> To further facilitate comparison across years, we adjusted the per capita spending for inflation in medical care costs, using the Consumer Price Index (CPI) for medical care services; amounts shown are in 1995 medical care dollars.<sup>12</sup>

**Classification process.** We then classified states according to their level and pattern of HCBS spending. First, we divided the states into two groups according to the proportion of their total 2005 LTC spending devoted to HCBS. States that spent less than the median proportion on HCBS were classified as low-HCBS states; the remaining states were classified as high-HCBS states. The latter were further divided into two categories according to whether their HCBS spending remained rela-

tively stable or increased markedly during the decade of interest: states whose per capita, inflation-adjusted HCBS spending more than doubled during 1995–2005 were classified as expanding-HCBS states; the remaining states, as established-HCBS states. States that were pioneers in offering extensive noninstitutional services fell into this latter group.

The classification process was done twice, once for non-MR/DD spending and once for MR/DD spending. Thus, two separate groupings of states were obtained (Exhibit 1).

## Study Findings

**Non-MR/DD spending.** The high- and low-HCBS states (as differentiated according to their 2005 expenditures) differed markedly in the types and amounts of spending on the non-MR/DD population (Exhibit 1). Low-HCBS states spent only about \$14 per capita on HCBS in 1995, compared to more than \$24 for the high-HCBS states. Both groups of states increased their HCBS spending over the decade much faster than the rate of inflation, with the low-HCBS states increasing by 56.7 percent and the high-HCBS states growing still faster, by 110.0 percent.

HCBS spending data reveal vastly different rates of growth for the established- and expanding-HCBS states (Exhibit 2). Established states increased their HCBS spending relatively modestly during the period (21.2 percent), while expanding states increased their spending by 276.2 percent. Especially rapid HCBS growth is apparent among the expanding states during 2000–2005, mostly because of program growth but also because California shifted a state-only program to a Medicaid personal care plan in 2001.

Nursing home spending grew by 3.4 percent in the low-HCBS states over the period, after adjusting for inflation, but declined by 15.3 percent in the high-HCBS states (Exhibit 3). A pattern of substantial growth is apparent in the low-HCBS states between 1997 and 2002 (followed by a sharp one-year decline, which we hypothesize is attributable to state budget shortfalls), and a steady decline is apparent for the high-HCBS states beginning in 2002.

Total LTC spending on the non-MR/DD population grew by similar amounts in the low- and high-HCBS states (Exhibit 4). But when we compared established and expanding HCBS states, we found that LTC spending actually declined by 7.9 percent in the established-HCBS states, but increased markedly in the expanding-HCBS states (24.2 percent). Spending increased greatly in both the low- and expanding-HCBS states during 1997–2002, when the established-HCBS states were able to hold their LTC spending relatively constant. The established-HCBS states also experienced a large decline in spending between 2003 and 2005, which is not seen in the data from the other states.

**MR/DD spending.** Also shown in Exhibit 1 is HCBS and institutional spending targeted to the MR/DD population. The practice of deinstitutionalizing this population, or avoiding institutionalization entirely, is much better established than

**EXHIBIT 1**  
**Mean Per Capita, Inflation-Adjusted Medicaid Long-Term Care (LTC) Spending In States With High And Low Home And Community-Based Services (HCBS), By Type Of Expenditure, And Percentage Change, Fiscal Years 1995 And 2005**

Non-MR/DD spending	Low-HCBS states <sup>a</sup>	High-HCBS states		
		All	Established <sup>b</sup>	Expanding <sup>c</sup>
HCBS spending				
FY 1995	\$ 13.69	\$ 24.35	\$ 39.67	\$ 14.12
FY 2005 (1995 \$)	\$ 21.46	\$ 51.10	\$ 48.09	\$ 53.12
Change	56.7%	110.0%	21.2%	276.3%
Institutional spending (nursing homes)				
FY 1995	\$ 122.64	\$ 110.83	\$ 138.54	\$ 92.35
FY 2005 (1995 \$)	\$ 126.85	\$ 93.88	\$ 116.03	\$ 79.12
Change	3.4%	-15.3%	-16.3%	-14.3%
Total LTC spending				
FY 1995	\$ 136.34	\$ 135.17	\$ 178.21	\$ 106.47
FY 2005 (1995 \$)	\$ 148.31	\$ 144.99	\$ 164.12	\$ 132.24
Change	8.8%	7.3%	-7.9%	24.2%
HCBS proportion of total				
FY 1995	10.0%	18.0%	22.3%	13.3%
FY 2005	14.5	35.2	29.3	40.2

MR/DD spending	Low-HCBS states <sup>d</sup>	High-HCBS states		
		All	Established <sup>e</sup>	Expanding <sup>f</sup>
HCBS spending (MR/DD waivers)				
FY 1995	\$ 14.21	\$ 28.89	\$ 47.82	\$ 18.24
FY 2005 (1995 \$)	\$ 36.31	\$ 59.49	\$ 71.04	\$ 52.99
Change	155.6%	105.9%	48.6%	190.4%
Institutional spending (ICF/MR)				
FY 1995	\$ 42.44	\$ 24.81	\$ 26.73	\$ 23.72
FY 2005 (1995 \$)	\$ 36.33	\$ 11.93	\$ 10.30	\$ 12.86
Change	-14.4%	-51.9%	-61.5%	-45.8%
Total LTC spending				
FY 1995	\$ 56.65	\$ 53.70	\$ 74.55	\$ 41.97
FY 2005 (1995 \$)	\$ 72.64	\$ 71.42	\$ 81.34	\$ 65.84
Change	28.2%	33.0%	9.1%	56.9%
HCBS proportion of total				
FY 1995	25.1%	53.8%	64.1%	43.5%
FY 2005	50.0	83.3	87.3	80.5

**SOURCE:** Authors' calculations based on data from Centers for Medicare and Medicaid Services 64 and 372 reports.

**NOTES:** MR/DD is mental retardation/developmental disability. ICF/MR is intermediate care facility for mental retardation.

<sup>a</sup>AL, CT, DE, FL, GA, HI, IN, IA, KY, LA, MD, MI, MS, NE, NH, NJ, ND, OH, PA, RI, SC, SD, TN, UT.

<sup>b</sup>AR, CO, ME, MA, MT, NY, OR, VA, WV, WI.

<sup>c</sup>AK, CA, ID, IL, KS, MN, MO, NV, NM, NC, OK, TX, VT, WA, WY.

<sup>d</sup>AK, CA, CT, ID, IL, IN, IA, KY, LA, MI, MO, NV, NJ, NY, NC, ND, OH, OK, PA, SC, TN, TX, UT, VA.

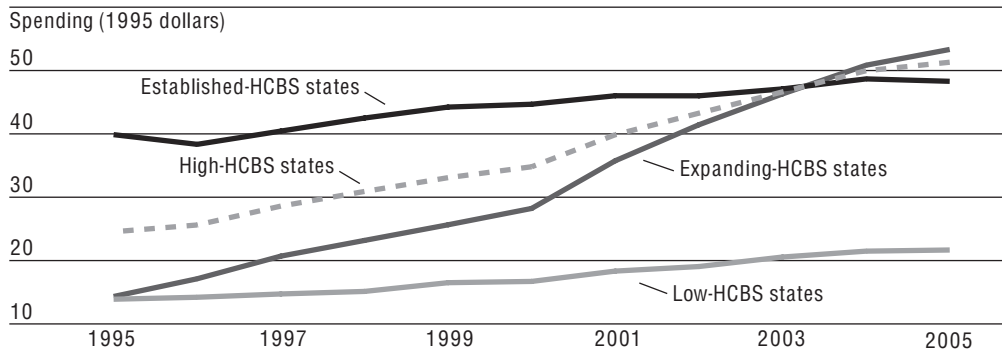
<sup>e</sup>CO, MA, NH, OR, RI, SD, VT, WA, WY.

<sup>f</sup>AL, AK, DE, FL, GA, HI, KS, ME, MD, MI, MN, MT, NE, NM, WV, WI.

for people with other types of disabilities, and even the low-HCBS states devoted, on average, half of their 2005 MR/DD LTC spending to noninstitutional services. Both the low- and high-HCBS states more than doubled their HCBS spending over the period; this spending nearly tripled among the expanding-HCBS states. Institu-

**EXHIBIT 2**

**Mean Per Capita, Inflation-Adjusted Spending On Home And Community-Based Services (HCBS), Excluding Mental Retardation/Developmental Disability (MR/DD) Programs, In States With Low And High HCBS, Fiscal Years 1995–2005**



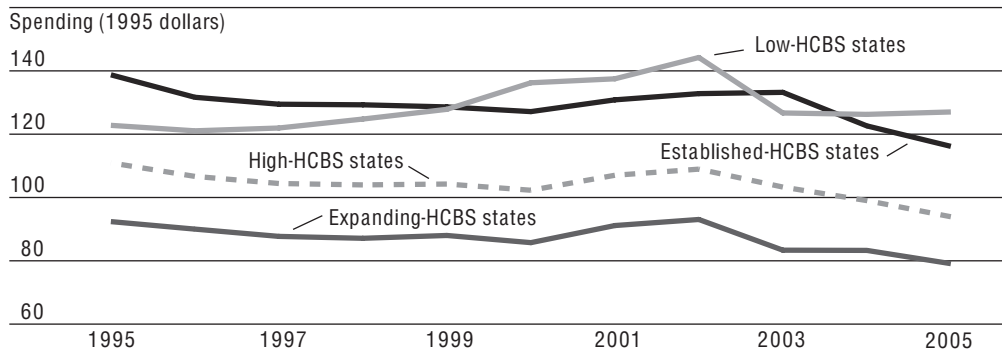
**SOURCE:** Authors' calculations based on data from Centers for Medicare and Medicaid Services (CMS) 64 and 372 reports.  
**NOTE:** For explanation of types of HCBS states, see text.

tional spending dropped for both low- and high-HCBS states, after adjusting for inflation, but the drop was much more dramatic for the high-HCBS states, where ICF/MR spending declined by more than half, compared to a 14.5 percent drop among the low-HCBS states. Particularly impressive is the 61.5 percent drop in ICF/MR spending among established-HCBS states.

Total LTC spending for the MR/DD population increased for all types of states, with a 28.2 percent increase among low-HCBS states and a 33.0 percent increase among high-HCBS states (Exhibit 5). Established-HCBS states, however, experienced by far the lowest rate of growth (9.1 percent), with hardly any growth in inflation-adjusted spending between 1998 and 2005. Expanding-HCBS states had the highest rate of spending growth, at 56.9 percent.

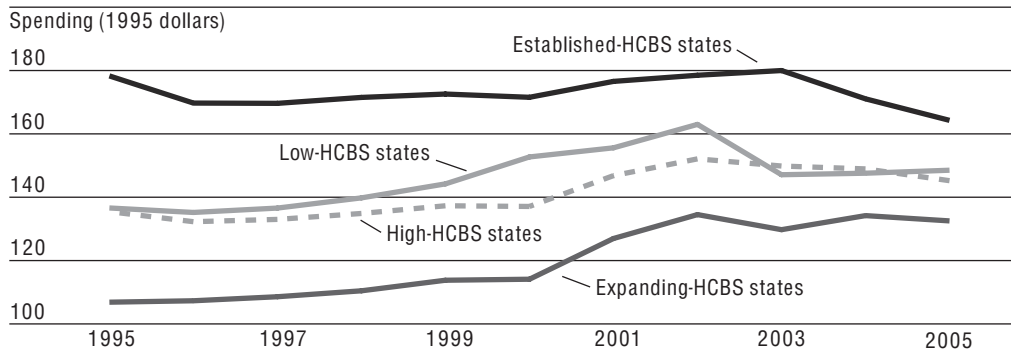
**EXHIBIT 3**

**Mean Per Capita, Inflation-Adjusted Nursing Home Spending In States With Low And High Home And Community-Based Services (HCBS), Fiscal Years 1995–2005**



**SOURCE:** Authors' calculations based on data from Centers for Medicare and Medicaid Services (CMS) 64 and 372 reports.  
**NOTE:** For explanation of types of HCBS states, see text.

**EXHIBIT 4**  
**Mean Per Capita, Inflation-Adjusted Long-Term Care (LTC) Spending, Excluding Mental Retardation/Developmental Disability (MR/DD) Programs, In States With Low And High Home And Community-Based Services (HCBS), Fiscal Years 1995–2005**

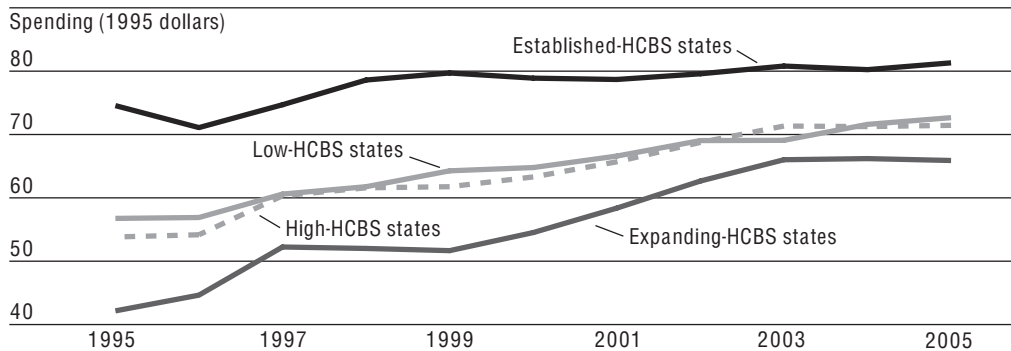


**SOURCE:** Authors' calculations based on data from Centers for Medicare and Medicaid Services (CMS) 64 and 372 reports.  
**NOTE:** For explanation of types of HCBS states, see text.

**Expenditures following HCBS expansion.** Having observed that for both non-MR/DD and MR/DD programs, established-HCBS states controlled spending better than low-HCBS states and much better than expanding-HCBS states did, we hypothesized that HCBS programs incur an initial cost and have the eventual, but not immediate, effect of reducing institutional spending and limiting the growth of overall LTC spending. To explore this possibility, we examined LTC spending before, during, and after expansion of HCBS programs in several states.

Nine states rapidly expanded their non-MR/DD HCBS spending during the latter part of the 1990s and then held that (inflation-adjusted) spending relatively steady until at least 2005. One state created a new PCS program and another ex-

**EXHIBIT 5**  
**Mean Per Capita, Inflation-Adjusted Long-Term Care (LTC) Spending On Mental Retardation/Developmental Disability (MR/DD) Programs, In States With Low And High Home And Community-Based Services (HCBS), Fiscal Years 1995–2005**



**SOURCE:** Authors' calculations based on data from Centers for Medicare and Medicaid Services (CMS) 64 and 372 reports.  
**NOTE:** For explanation of types of HCBS states, see text.

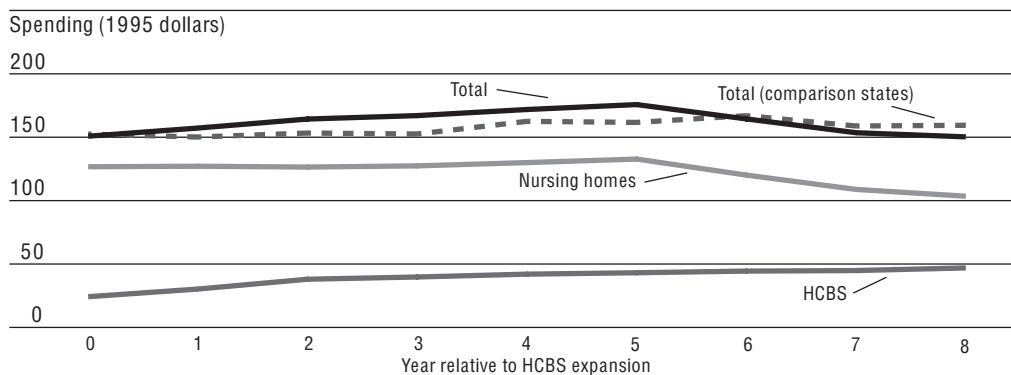
panded an existing program, two states created new waiver programs and four expanded existing waivers, and one state expanded both a PCS and a waiver program. The growth in HCBS spending typically occurred over two years and then leveled off.

Exhibit 6 presents the mean spending on non-MR/DD HCBS, nursing homes, and total non-MR/DD LTC for the nine states; data for the states are combined not according to the fiscal year of expenditure but instead according to the year relative to the expansion. The states had not yet begun to increase spending during Year 0 (1995 for three states, 1996 for two, and 1997 for four); the expansion was essentially complete by Year 2; and HCBS spending remained relatively steady for the six subsequent years (ending in 2003, 2004, or 2005).

For these states, HCBS spending increased on average by 57.3 percent during the two years of rapid growth, and then much more slowly during subsequent years. Nursing home spending remained fairly stable for the three years following full expansion and then declined in each subsequent year. Total non-MR/DD spending rose especially rapidly during the period of HCBS expansion and then rose more slowly for the next three years. During subsequent years, however, total inflation-adjusted spending fell substantially, returning to just below its pre-expansion level in the final year.

For comparison, we identified fifteen states that held their non-MR/DD HCBS spending stable over the entire period (Exhibit 6). With flat HCBS spending and increasing nursing home spending, the comparison states saw a 4.6 percent increase in overall spending over the period. Initial levels were roughly equal in the comparison and expansionary states; following a temporary increase, the expan-

**EXHIBIT 6**  
**Mean Per Capita, Inflation-Adjusted Long-Term Care (LTC) Spending, Excluding Mental Retardation/Developmental Disability (MR/DD) Programs, In Nine States, Before, During, And After Home And Community-Based Services (HCBS) Expansion**



**SOURCE:** Authors' calculations based on data from Centers for Medicare and Medicaid Services (CMS) 64 and 372 reports.  
**NOTES:** Expansion states are CO, CT, KS, MN, NC, NE, TX, WA, WI. Comparison states are AL, AR, DE, FL, GA, IN, KY, MI, NJ, NY, ND, RI, TN, VA, WV.

sionary states were able to reduce their overall non-MR/DD LTC spending to approximate that of the comparison states in Year 6, and then further reduce it in subsequent years to below the comparison levels.

A similar analysis of states that expanded their MR/DD spending in the late 1990s (not shown) also suggests a lag between an increase in HCBS spending and a reduction in institutional spending, but the lag period appears to be shorter than for the non-MR/DD population.

## Discussion

An analysis of state-by-state Medicaid LTC spending for 1995–2005 reveals that states offering extensive noninstitutional services experienced growth in overall spending comparable to that in states offering lower levels of such services. This finding holds true for spending on services both for people with nondevelopmental physical or cognitive disabilities, on the one hand, and for people with intellectual and other developmental disabilities, on the other.

For both types of spending, states with extensive, well-established noninstitutional programs saw much less spending growth than states with minimal noninstitutional services. In the case of non-MR/DD spending, states with well-established noninstitutional programs actually reduced their overall, inflation-adjusted LTC spending, in contrast with growing expenditures among states with minimal noninstitutional services. States that greatly expanded their HCBS programs during the period, however, saw greater increases in overall spending than other states did; the bulk of this expansion occurred after 2000, and its long-term effects are not yet observable.

**Negligible impact of other factors.** In comparing LTC spending patterns across states, it is worth exploring whether economic or population factors might account for the observed differences. Published models of state variations in total LTC spending have identified the most important predictors as average income and proportion of the population likely to need LTC, based either on a disability measure or on the proportion of residents who are very elderly.<sup>13</sup> We obtained state-by-state data from the 2000 census on median household income and on the proportion of residents with self-care difficulties; we found no significant correlation between either of these variables and the proportional change in LTC spending. It is therefore unlikely that such factors could explain the different spending trends observed among the states.

**Lag between HCBS expansion and lower LTC spending.** An examination of a group of states that expanded HCBS programs in the late 1990s suggests that there is a lag between the expansion of noninstitutional services and a subsequent, compensatory reduction in institutional spending, resulting after several years in lower total LTC spending than in states that did not expand HCBS programs. Because HCBS programs tend to serve people at risk of needing institutional services, with the goal of deferring or obviating their eventual institutionalization, and not merely

people gradually moving out of institutions, a lag between the introduction of an HCBS program and a reduction in the institutional population might be expected. Furthermore, real savings in institutional costs occur only when the number of Medicaid-financed nursing home residents is reduced, a process that can take years.

It seems apparent that states offering noninstitutional LTC services as an alternative to institutionalization are not only complying with the Olmstead decision and meeting the demands of their citizens with disabilities, but are also potentially saving money. One caveat, however, is that an initial outlay is required to launch a new HCBS program, followed several years later by a reduction in institutional spending and the possibility of overall cost savings. Additionally, our results do not necessarily imply that institutional savings occur automatically, but instead may result from parallel policy initiatives such as certificate-of-need programs or moratoria on new nursing home beds.<sup>14</sup>

It is clear, in any case, that states offering noninstitutional alternatives do not generally suffer any long-term financial penalty as a result. Such states have been able to contain and even reduce costs, largely avoiding a feared “woodwork effect” in which the demand for services was predicted to grow tremendously once HCBS programs became available.

**Pending legislation and its costs.** Legislation pending before Congress would require states not already doing so to offer noninstitutional alternatives to anyone eligible for institutional services. The Community Choice Act, successor to the Medicaid Community-Based Attendant Services and Supports Act (MiCASSA), was once estimated by the Congressional Budget Office to require additional Medicaid expenditures of \$10–\$20 billion or more annually, but a recent study calculates that the cost would be much lower, \$1.4–\$3.7 billion.<sup>15</sup> Neither analysis attempted to estimate cost savings through a commensurate reduction in institutional spending, however. Our study suggests that if experience is any guide, such legislation would likely entail no additional long-term spending and might in fact save money over the long run by providing less costly services to people who could then avoid or defer entering a nursing home or an ICF/MR.

**F**rail elderly people, and especially nonelderly people with various types of disabilities, need services that allow them to remain in their homes and retain their independence, and avoid entering an institution, possibly to remain there for the rest of their lives. In some states, those who cannot afford to purchase their own services have no alternatives to institutionalization. Justifications based on financial constraints can no longer be credibly offered as reasons for forcing such people into nursing homes and other institutions. HCBS programs may be one instance in which offering people greater choice also helps reduce costs.

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#### NOTES

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