ORIGINAL research

Dual Eligibility and LTC: Consequences for Medicare and Medicaid

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The growing LTC population is not the only problem for constrained Medicaid budgets. Adding to budgetary concerns is the fact that coverage of LTC services by Medicaid is reimbursed but not integrated. This three-year study describes service-use patterns and their costs for more than 30,000 Georgia LTC patients, with a particular emphasis on those eligible for both Medicare and Medicaid. This study found that 41% to 42% of total costs of LTC patients are for LTC services only. Average monthly physician costs for patients in nursing facilities were 60% higher than for those in a community-based program for the elderly and disabled. The cost of prescription drugs was 40% higher in the community-based programs than in the nursing home. Study observations illustrate that, whereas Medicare has been part of the health care landscape for more than a quarter century, its interactions with Medicaid cost and policy are even more important to understand as the population ages.

Dually eligible Medicare and Medicaid beneficiaries account for a disproportionately large share of both programs' expenditures.[1] The demand for services originates from the vulnerability of dually eligible patients both in terms of frail health status and personal economics. In addition, this group is growing larger and faster than other beneficiaries. The service and cost challenges presented by the dually eligible will continue to increase for both programs well into the first quarter of the century.[1]

The care needs of LTC residents are not restricted to LTC services only. Such patients require acute care, physician services, and prescription drugs in addition to LTC services. Therefore, in tracking the utilization and cost patterns of LTC patients, it is necessary to develop a picture over an extended period of time and to include a wide array of services and costs.

Almost two-thirds of Medicaid expenditures nationally are allocated to aged, blind, and disabled (ABD) clients and their LTC needs. As a result, it is frequently assumed that the rising cost of LTC is a Medicaid problem only. However, such care may present challenges for both Medicaid and Medicare.

Medicare and Medicaid differ in terms of the services reimbursed. These differences become especially important when the beneficiary is dually eligible. Medicare technically does not offer "LTC services" but rather rehabilitation services following an acute care episode. Those services are usually limited to a benefit period of 100 days. However, Medicare reimburses an array of other services for these individuals concurrent with their rehabilitation care.

Medicaid provides payment for institutional care as well as home and community-based services. Medicaid also reimburses prescription drug benefits that are still extremely limited within Medicare. Medicaid also reimburses a broad array of other services.

In addition to the differences highlighted between the two programs in terms of policy, the services reimbursed by each program as well as their related care plans and management are not integrated.

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PATIENTS AND METHODS

The study presented here is an extension of work published in 2001.[2] The study had several objectives, most

importantly, "to evaluate cost and care outcomes among nursing facility care and four home and community-based services (HCBS) programs in Georgia." Two hundred fifty-one HCBS patients were clients of programs focusing on traumatic injury. These patients were removed from the current analyses because of their small population sizes and specialized care needs. The remaining HCBS programs—Community Care Service Program (CCSP) and Service Options Using Resources in Community Environments (SOURCE)—are described in Table I.

The study was not designed to be a sampling but rather a retrospective analysis of all nursing facility patients admitted during 1999 and all HCBS clients in residence or admitted during the same calendar year. In this study, clients in the home and community-based programs are limited to Medicaid waiver programs and do not include skilled home health care.

The principal database comprised all Medicare and/or Medicaid claims submitted for each LTC patient during a 12-month period following January 1, 1999 or the patient's admission date in that year. Approximately 10% of the potential cohort was private pay and was thus excluded from the study.

Each patient was followed for 12 consecutive calendar months, regardless of month of entry, unless Medicare or Medicaid claims were exhausted or the patient died. Denominators throughout the report are calculated based on months in which each patient actually received a service that produced a Medicare or Medicaid claim.

To create the database, 11,305,572 Medicare and Medicaid claims were provided to the researchers by the Centers for Medicare & Medicaid Services and the Georgia Medicaid program. The integration of those two data sources resulted in a study cohort of 34,652 patients.

In order to break out costs, a number of cost categories were defined as follows:

- Long-term care: Inpatient chronic, Medicare/Medicaid SNF, intermediate care facility, mental retardation facility, Medicare home health/Medicaid home care, adult day health, waiver payments, and CCSP case management fees
- Physician: All inpatient and outpatient physician payments that are based on individual medical procedures or revenue center charges for physician services; payments to inpatient facilities, including hospitals and SNFs, for physician care based on revenue center charges, are not included
- Prescriptions: Charges for pharmaceutical products and supplies delivered in an outpatient setting by a clinic, emergency room, ambulatory surgical center, end-stage renal disease facility, or physician's office
- Non-LTC: Inpatient acute, outpatient, outpatient mental health, and hospice nonphysician claims
- Support care: Nonphysician practitioners (e.g., physical therapist), lab/radiology tests, ambulance, and durable medical equipment
- Other payment: Any capitation, third-party liability, deductible, copayment, and crossover payments appearing in either the Medicare or Medicaid data

Table II illustrates selected characteristics of the cohort. Based on published information from other states, the

TABLE I: SUMMARY DESCRIPTION OF THE STUDY'S LTC PROGRAMS

LTC Program	Type	Date Established	Insurance Status*			Admit MAO	Summary Characteristics
			Medicare	Medicaid	Dual Eligible		
Nursing Facilities (NF)	Institutional	1967	58%	5%	37%	Yes	24-hr, 7 day/wk institutionally based skilled services to individuals certified for such a level of care
Community Care Service Program (CCSP)†	Georgia home and community-based waiver program	1982	0%	12%	88%	Yes	In place of nursing facility placement to individuals certified for such a level of care, provides home and community-based services
Service Options Using Resources in Community Environments (SOURCE)	Georgia home and community-based demonstration waiver program	1997	0%	17%	83%	No	In place of nursing facility placement to individuals certified for such a level of care, provides care, provides community-based services with physician oversight and enhanced case management

*Based on the following patient populations in 1999: NF, 19,677; CCSP, 14,262; SOURCE, 462.
†Cost share required.
MAO = Medical assistance only.

selected Georgia characteristics are similar. Specifically, the majority of LTC patients are elderly Caucasian women. Higher proportions of rural residents became LTC patients. Despite the growth of HCBS programs since the 1981 enactment of the Medicaid Home and Community-Based Services Waiver, the majority of LTC patients still receive their care in nursing facilities, but that proportion is shrinking over time. The cohort's Georgia nursing facility population is lower than the actual proportion of 1999 nursing facility patients. For reasons of cost and time, the study excluded individual residents in nursing facilities during 1999 who were admitted before January 1, 1999.

RESULTS

Table III illustrates the distribution of the cohort among LTC programs by reimbursement source. The majority of beneficiaries are dual eligible; however, the allocation between nursing facilities and HCBS programs is considerably different. The greatest proportion of HCBS patients (87%) is dually eligible and, by the nature of the HCBS programs' benefits, are almost exclusively consumers of nonrehabilitation LTC services. Nursing facilities have a much smaller proportion of dual eligibles (< 40%).

Table IV displays the full costs of the cohort's dually eligible patients as reimbursed by Medicare and Medicaid. It also compares overall LTC costs of nursing facility and HCBS patients.

Comparing average monthly nursing facility and HCBS expenditures, less than 50% of the total costs of LTC were for LTC services only. Of the five categories, LTC services accounts for the highest total cost in each program; however, LTC costs account for less than half of the overall expenditures of both nursing facility and HCBS patients. The LTC proportions for both programs are almost identical (41% for HCBS vs. 42% for nursing facilities).

The second highest expense category was non-LTC, which accounts for similar proportional costs in nursing facilities and HCBS (29% vs. 25%, respectively). For the remaining three categories, support care was ranked fourth in terms of cost for both program types. However, for prescription drugs and physician services, the program rankings change: third and fifth most costly, respectively, for nursing facilities and fifth and third most costly, respectively, for HCBS.

Average monthly physician costs for nursing facilities were 60% higher than those for HCBS. However, HCBS prescription drug costs were 40% higher than those for nursing facilities. Both of these differences may originate from the preponderance of rehabilitation patients in nursing facilities. In both programs, support care ranked fourth most expensive, and the actual dollar amount was almost identical.

Combining nursing facilities and HCBS, the average monthly payment for LTC services was nearly the same for Medicare and Medicaid. Total nursing facility patient LTC costs for Medicare were almost 50% higher than those for Medicaid.

Table V summarizes the status of the dual eligibles at the end of their individual observation years. More than one-third of the nursing facility patients died—a figure to be expected given their age and frail health status. For HCBS patients, the comparable figure was approximately 4%. However, more than 70% of the HCBS patients was still receiving care within that program(s) at the end of the year as opposed to slightly more than one-third of the nursing facility patients. This difference, however, is greatly influenced by the number of Medicare reimbursed nursing facility patients staying 100 days or less. As further evidence of the limits of institutional Medicare reimbursement, it should be noted that almost 25% of discharged nursing facility patients still receive some form of other care (e.g. physical therapy) as compared with about 5% of the former HCBS patients.

Some HCBS advocates have hypothesized that Medicaid HCBS waiver programs save Medicare money. Table VI shows various costs once patients are discharged from

TABLE II: SELECTED PATIENT CHARACTERISTICS AMONG GEORGIA LTC PROGRAMS

Characteristics	Nursing Facility	CCSP	SOURCE
Age			
median (yr)	80	77	75
< 65 yr	10%	25%	27%
Gender			
female	65%	76%	80%
Race			
non-Caucasian	25%	43%	73%
Patient Residence			
rural (vs. urban)	44%	57%	17%

CCSP = Community Care Service Program; SOURCE = Service Options Using Resources in Community Environments.

TABLE III: PUBLIC INSURANCE CLIENTS AMONG GEORGIA LTC PROGRAMS BY BENEFICIARY CATEGORIES

Program	Reimbursement Source	Percent
Nursing Facility	Medicare	58%
(N = 19,677 clients)	Medicaid	5%
	Dual Eligible	37%
Home & Community-Based	Medicare	0%
Service (N = 14,724)	Medicaid	13%
	Dual Eligible	87%
Overall (N = 34,401)	Medicare	33%
	Medicaid	8%
	Dual Eligible	59%

N = Number.

TABLE IV: AVERAGE MONTHLY MEDICARE AND MEDICAID OVERALL CARE COSTS

LTC Program	Insurer	LTC Cost	Physician Cost	Prescription Cost	Non-LTC Cost	Support Care Cost	Unallocated Care Services Cost: Medicaid Crossover	Unallocated Care Services Cost: Other Payer Liability	Total Cost
Nursing Facility (N = 19,677)	Medicare	$1,241	$289	$26*	$1,426	$185	N/A	$479†‡	$3,167
	Medicaid	$964	$9	$127	$64	$8	$73	$249*	$1,244
	Total	*$2,205*	*$298*	*$153*	*$1,490*	*$193*	*$73*	*$728*	*$5,138*
HCBS (N = 14,724)	Medicare	$244	$111	$32	$430	$137	N/A	$41†	$954
	Medicaid	$581	$11	$205	$79	$28	$116	$8†	$1,022
	Total	*$825*	*$122*	*$237*	*$509*	*$165*	*$116*	*$49*	*$2,025*
Overall (N = 34,401)	Medicare	$814	$213	$29	$1,000	$165	N/A	$292†	$2,220
	Medicaid	$800	$10	$160	$71	$17	$91	$146†	$1,149
	Total	*$1,614*	*$223*	*$189*	*$1,071*	*$182*	*$91*	*$438*	*$3,806*

*At the time of the study, Medicare was only offering limited prescription benefits.
†Owing to incompleteness of database for this element, the dollar figure is not included in the total cost calculation.
‡The dollar amount specified was incurred as patient or non-Medicare/Medicaid third-party liability for a Medicare claim.
N = Number; HCBS = home and community-based services; N/A = not applicable.

their original programs. Both Medicaid and Medicare costs were dramatically reduced once nursing facility patients leave the institution, which follows reason for a short-term rehabilitation population. Costs for HCBS patients, conversely, increased once they left their original programs; but their costs to Medicare increased much more dramatically than their costs to Medicaid. For this reason, the relationships between Medicare and Medicaid should be of great interest to policy makers.

DISCUSSION

Dually eligible beneficiaries are the "800-lb gorilla" of Medicare and Medicaid. They represent the highest cost recipients, and therefore, studying their cost and care patterns is informative for policy development.

As discussed previously,[2] the varying proportions of dual-eligible populations between nursing facilities and HCBS programs are the result of the significant difference in LTC reimbursement between Medicare and Medicaid. As the length of nursing facility stay increases beyond the Medicare limits, the proportion of dual eligible increases significantly, owing to patients "spending down" into Medicaid.

This study found that total nursing facility patient LTC costs for Medicare are almost 50% higher than those for Medicaid. A large share of the difference can be attributed to variations in care requirements between the rehabilitation patient and the more "traditional" LTC patient. It may also be attributed to differences in levels of reimbursement between Medicare and Medicaid. However, the individual program expense differences also underscore the point that viewing only LTC-specific costs for both programs would provide a misleading perspective on the costliness of such patients and, consequently, encourage policy missteps.

Overall, a nursing facility patient's average monthly LTC costs were higher than those of an HCBS patient by more than 60%. However, the two programs do not serve the same types of patients, nor are their environments and care management similar. Specifically, nursing facility patients are older than HCBS patients, on average. Nursing facility patients are generally more severely ill than HCBS patients. Nursing facility resources are generally available 24 hours per day, seven days a week, whereas HCBS services are brought to patients at their residences on an as-needed basis.

Long-term care cost and policy improvement studies must be based on total cost and include both Medicare and Medicaid information. Lack of program integration could create incentives for lower quality and more costly services. The consequences of those negative incentives (i.e., "churning effect"[2]) still need investigation.

TABLE V: PATIENT DISPOSITION BY PROGRAM AT THE END OF 12-MONTH OBSERVATION

Disposition Status	Nursing Facility (%) (N = 19,677)	HCBS (%) (N = 14,724)	Overall (%) (N = 34,401)
Alive, same LTC program	38%	73%	53%
Alive, different LTC program	1%	9%	4%
Alive, "other"* care	23%	5%	15%
Alive, no care program	4%	2%	3%
Deceased	34%	11%	24%

*"Other" care refers to health/medical care other than LTC- specific care.
N = Number; HCBS = home and community-based services.

TABLE VI: AVERAGE MONTHLY MEDICARE AND MEDICAID OVERALL CARE COSTS POSTDISCHARGE

LTC Program	Insurer	LTC Cost	Physician Cost	Prescription Cost*	Non-LTC Cost	Support Care Cost	Unallocated Care Services Cost: Medicaid Crossover	Unallocated Care Services Cost: Other Payer Liability	Total Cost
NF	Medicare	$150	$138	$37	$496	$119	—	$146	$939†
	Medicaid	$24	$2	$16	$15	$3	$12	$8	$72†
	Total‡	*$174*	*$140*	*$53*	*$511*	*$121*	*$12*	*$154*	*$1,165§*
HCBS	Medicare	$566	$159	$27	$837	$129	—	$231	$1,719†
	Medicaid	$941	$12	$188	$74	$16	$124	$214	$1,353†
	Total	*$1,506*	*$172*	*$215*	*$912*	*$145*	*$124*	*$445*	*$3,518§*

*Medicare at the time of the study was only offering limited prescription benefits.
†Total payment excludes "other payer" liability.
‡Total includes as applicable, all payment sources: Medicare, Medicaid, and other payers.
§Total payment includes "other payer" liability.
NF = Nursing facility; HCBS = home and community-based services.

TABLE VII: PATIENTS EXPERIENCING THREE OR MORE INPATIENT ADMISSIONS OR EMERGENCY VISITS WITHIN 12 MONTHS

Services	LTC Program	Patients* (%)
Hospital Inpatient Services	NF	19%
	HCBS	19%
Emergency Services	NF	17%
	HCBS	27%

*Denominator includes only patients experiencing at least one inpatient admission or emergency service visit.
HCBS = Home and community-based services; NF = nursing facility.

Table V implies that LTC need not be permanent care, given the percentage of patients who appear to manage without further care or at least with less expensive forms of care postdischarge. Further, given the small proportion of transfers from HCBS to nursing facilities (about 10%), the HCBS intervention appears to at least forestall further serious degeneration in health status requiring more complex and expensive forms of LTC.

Before discharge, however, a pattern of patient interinstitutional transfer was observed (Table VII) from the LTC programs to hospitals and back. The researchers' earlier work made a similar observation,[2] but that work was limited to nursing facility patients. Termed the "churning effect," it has been hypothesized that these frequent and multiple movements of patients between acute care and LTC environments relate more to a lack of policy integration between Medicare and Medicaid than increases in patient acuity. Although this hypothesis remains untested, the finding that there is a "churned" proportion of patients in every LTC program lends additional strength to its underlying assumptions. Specifically, even by changing patient care management patterns (e.g., enhanced case management), a portion still moves back and forth. The implicit reasons for such movement, however, emerge from which services are reimbursed in an acute care environment but not in an LTC environment.

Quality and cost implications arise for both Medicare and Medicaid in permitting such patterns to prevail.[2] However, collateral problems could also emerge from controlling these patterns.

CONCLUSION

This study of more than 30,000 Georgia LTC patients found significant differences in cost allocations between patients discharged to a nursing facility versus a community-based care program. The implications of Medicaid policy on cost are even more important to understand as the population ages. It is imperative therefore, that since the dual eligible population are associated with a large share of total public health program costs, an integrated approach between Medicare and Medicaid must be considered when analyzing cost effects.

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DISCLOSURES

Mr. Landers and Dr. Cooney have indicated they do not have any financial or commercial affiliations to disclose.

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