Medicaid's Role in the Many Markets for Health Care

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To illuminate Medicaid's growing role as a health care purchaser, we estimated Medicaid spending and market shares for 30 markets defined by provider category of service. For approximately 15 markets, our estimates are more detailed than the data available from standard sources. Two-thirds of Medicaid spending occurs in markets where the program has a modest market share. The other one-third occurs in markets that Medicaid dominates, especially in the areas of long-term care (LTC), mental retardation, and mental health. We explore the implications of the different roles for payment policy, industry organization, data availability, and quality of care.

INTRODUCTION

Mounting interest in the Medicaid Program for the poor and disabled is fueled by reports that it has become the single largest State expenditure, pays for one-sixth of health care nationwide, and is a perennial budget issue in State legislatures (National Association of State Budget Officers, 2006).

Beyond knowledge of rising aggregate spending, little is known about Medicaid's role as a purchaser of services. A paucity of data has been identified as a barrier to the effective management of a program that, in 2003, served 42 million people at an expense of $276.2 billion[1] (Rowland and Tallon, 2003). Knowledge of the payer mix in health care markets is also a prerequisite for analyzing policy issues such as finding the right price for the purchase of services, encouraging improvements in quality, and predicting impacts on industry organization and finances.

This article combines multiple data sources to present the first comprehensive analysis of Medicaid's role in the many markets for health care. We begin by apportioning Medicaid spending among 30 provider markets in the acute care, LTC, and managed care sectors. We then estimate Medicaid's share of each market. So far as we know, there are no similarly detailed examinations of the roles played by Medicare or private plans.

We find that Medicaid plays two distinct roles as a purchaser. In 21 markets, where Medicaid payments total $159.1 billion, Medicaid represents a modest share of overall provider revenue. We term this role "Medicaid in the market." In the other nine markets, where Medicaid payments total $95.5 billion, Medicaid is the dominant payer. We term this role "Medicaid is the market." In addition, there are important examples where Medicaid is the dominant purchaser in a submarket even though it has a modest share of a market overall. We explore the implications of the different roles on payment policy, industry organization, data availability, and quality of care.

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[1] The figure of 42 million beneficiaries refers to enrollment in June 2003.

CONCEPTUAL FRAMEWORK

This analysis draws on and extends standard concepts from the economics and health services research literature on market definition and marketplace dynamics.

Definition of Markets

We use the terms market and provider category of service interchangeably, reflecting the pervasive effect that legal definitions have on the demand and supply of health care. In other industries, defining a market typically involves analysis of cross-elasticities of demand and supply (Glick, Cameron, and Mangum, 1997). For example, are bottled water and cola drinks in the same market? Analysts can investigate this question by measuring the extent to which higher prices for bottled water result in consumers shifting to cola and in cola suppliers entering the bottled water business.

Although no law prevents a cola company from selling bottled water, many laws require licenses before specific health care services can be provided. Moreover, government agencies—Medicare, Medicaid, and others—are major purchasers of health care, and the services they buy are often described specifically in statute and regulation. To be sure, some provider boundaries are permeable. Both hospitals and ambulatory surgical centers (ASCs) offer outpatient surgeries, for instance. Even this example, however, underscores the boundaries between markets. Most procedures performed in ASCs are less costly than the same procedures performed in hospitals, and this has been true for years (U.S. Government Accountability Office, 2006). Yet hospitals have certainly not been pushed out of the outpatient surgery business.

Health care markets can also be defined geographically, and national averages, in fact, mask considerable variation at the State level. For example, Medicaid plans can buy hospital care directly from hospitals or indirectly through managed care plans. States such as Arizona, Tennessee, and New Mexico spend large percentages of their Medicaid budgets on managed care plans, while other States have no managed care at all (Centers for Medicare and Medicaid Services, 2006). States with substantial managed care can be expected to have smaller shares of the fee-for-service (FFS) market for inpatient care. Though the extent of inter-state variation is beyond the scope of this study, the differences among States in how they purchase health care would be a fruitful area for further examination.

We aggregated markets into the acute, long term, and managed care sectors, using traditional groupings (Table 1). Because Medicaid purchases managed care services directly, we examine this sector separately rather than combining it with the FFS acute care sector or attempting to drill down into purchases by managed care organizations (MCOs) of hospital care, prescription drugs, etc.

Marketplace Dynamics

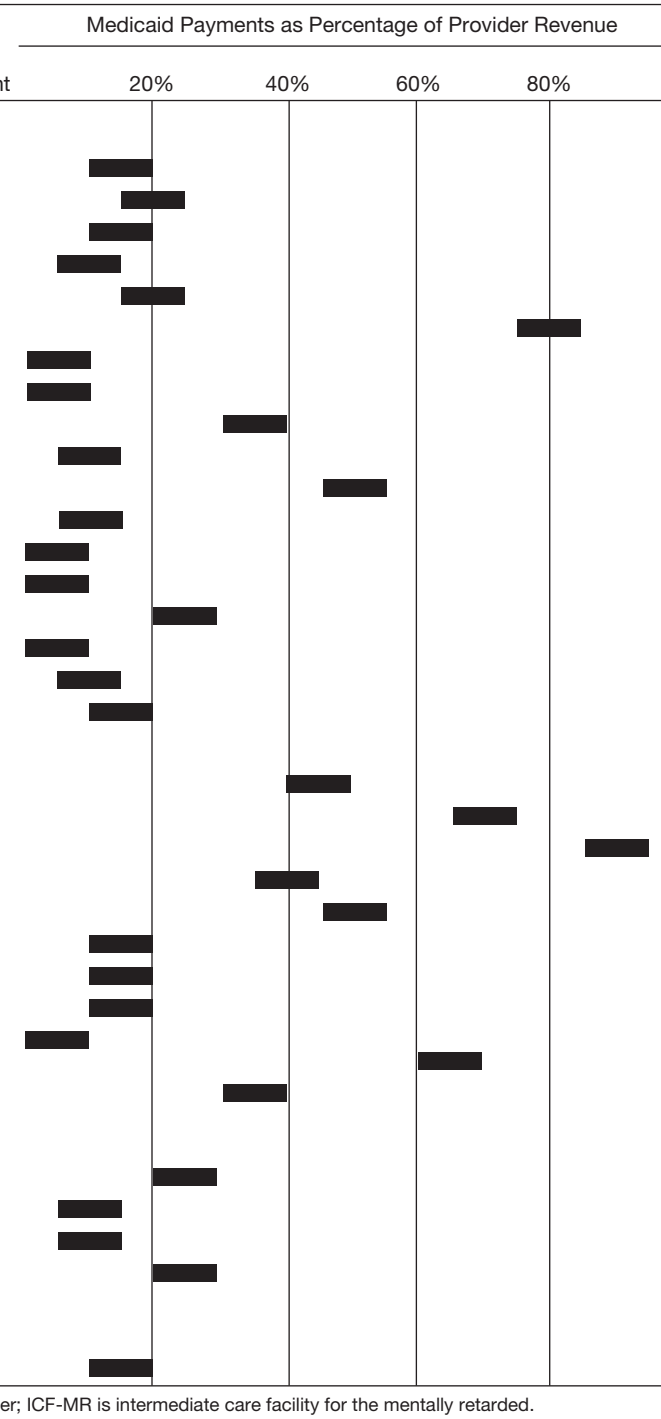
The standard conceptual framework for studies of market composition is to assume that each buyer and seller manages revenue and cost to maximize profits. This framework continues to be useful in understanding the behavior of private-sector purchasers and of many providers, including providers that may be not for profit, but nevertheless need revenue to exceed cost in order to keep their doors open.

For Medicaid plans, however, revenue and cost are separate topics and profit has no meaning. We therefore conceive of Medicaid plans facing annual fixed-dollar budget constraints and then maximizing the volume of services provided to their beneficiaries. The budget constraint is

Table 1

Medicaid's Role in the Many Markets for Health Care: Federal Fiscal Year 2003

Provider Type	Medicaid Payments	Percent
	(In Billions)	
Acute Care		
Hospital Inpatient	$46.1	16.7
Prescription Drugs	26.6	9.6
Hospital Outpatient	10.1	3.7
Physician	10.0	3.6
Inpatient MH Facility	7.6	2.8
Community MH Center	4.8	1.7
Dental	3.0	1.1
Other Practitioners	2.0	0.7
FQHC	1.2	0.4
Public Health Agencies	1.1	0.4
Transport Excluding Ambulance	1.1	0.4
Ambulance Services	0.7	0.3
Therapists	0.7	0.2
Vision Supplies	0.5	0.2
Rural Health Center	0.5	0.2
Ambulatory Surgical Center	0.3	0.1
Other Care Services	5.2	1.9
Subtotal Acute Care	121.5	44.0
Long-Term Care		
Nursing Facility	44.6	16.2
Personal Assistance	12.1	4.4
ICF-MR	11.7	4.2
Adult Day Services	9.6	3.5
Case Management	3.7	1.3
Residential Support	3.7	1.3
Skilled Home Health	3.4	1.2
Durable Medical Equipment	2.9	1.1
Hospice	0.9	0.3
Miscellaneous Waiver Services	0.2	0.1
Subtotal Long-Term Care	92.9	33.6
Managed Care		
Comprehensive	36.8	13.3
Behavioral Health Carveouts	2.9	1.1
Other Carveouts	0.6	0.2
Subtotal Managed Care	40.2	14.6
Other Payments	21.5	7.8
Total	276.2	100.0



NOTES: MH is mental health; FQHC is federally qualified health center; ICF-MR is intermediate care facility for the mentally retarded.

SOURCE: Quinn, K., ACS Government Healthcare Solutions and Kitchener, M., University of California, San Francisco.

often explicit, e.g., a line item in legislative appropriations or an agency budget. In a more perfect world, the Medicaid agency might then strive to maximize the improvement in health status achieved by its beneficiaries. In practice, however, such a goal is exceedingly difficult to put into operation. Instead, we observe an intense focus

on access to care, that is, on the volume of services provided (Quinn, 2006).

A second difference from the standard model is that Medicaid purchases are almost always made at administered prices. These prices are typically public and available to all providers on the same terms, which until recently have very rarely included performance-based incentives. They also tend to be rigid in that they are not easily or frequently adjusted. In contrast, purchases by private plans often turn on prices that are confidential, changeable, variable from provider to provider, and reflect incentives based on utilization, quality, or other criteria. Private plans generally do business only with providers in their networks, while a Medicaid Program usually purchases services from anyone willing to accept its price. Although providers must be enrolled in Medicaid to be paid, enrollment requirements are typically minimal, except for rare experiments in selective contracting.

On the supply side, Medicaid purchases services from dozens, hundreds, or even thousands of providers, depending on the market. Each provider has three decisions to make: (1) whether to enter or exit the market because of Medicaid, (2) whether to enroll as a Medicaid provider, and (3) how much Medicaid business to pursue. In keeping with the standard model, we expect these decisions to be based largely on how average Medicaid payments compare with average provider costs. If a provider has excess capacity (an important assumption, but often a reasonable one), the provider has a financial incentive to take Medicaid so long as payment covers average variable cost, even if it does not cover average total cost. (Total cost equals the sum of variable and fixed costs. Variable costs include supplies, drugs, and direct care salaries, while fixed costs include depreciation, building expense, and administration salaries.) To stay in business, of course, providers must cover not only average variable cost, but also average total cost.

Though the market influence of most individual providers is modest, provider associations can wield considerable influence on how administrative prices are set by State legislatures and Medicaid agencies. This is a third difference from the standard model. The political economy of Medicaid markets is beyond the scope of this study, but we note its importance in gaining a full understanding of marketplace dynamics.

In sum, our conceptual model is that Medicaid sets administered prices within well-defined markets, subject to State budgetary conditions, with a goal of purchasing as many services as possible from providers that respond so long as Medicaid payment covers at least their average variable cost.

Characterization of Medicaid Role

We develop two characterizations of Medicaid's role within a market. The first is termed Medicaid in the market and applies to those markets dominated by Medicare and private plans. In these markets, Medicaid tends to represent a modest share (under 20 percent) of provider revenue.

In purchasing other categories of health care, however, Medicaid *is* the market. This is only a slight exaggeration; when one payer's share exceeds 42 percent, that fact alone qualifies a market as highly concentrated under Federal Government guidelines (Hyman and Kovacic, 2004). This characterization applies to some markets in their entirety and to some submarkets where Medicaid has a particularly high share.

Characterizing more than $200 billion of economic activity in just two ways is a simplification, and one that does not apply equally well to every market. On the whole, however, we were struck by how well

these simplified characterizations captured Medicaid's role in particular markets. We discuss these observations after we define markets and estimate market shares.

STUDY DESIGN AND METHODS

This study comprised three analytical steps: (1) specifying markets, (2) estimating Medicaid spending by market, and (3) estimating Medicaid's share of total spending in each market. Our essential approach was to gather spending data from as many sources as possible, then contrast and combine those sources to arrive at the estimates in Table 1.

In this section we list our data sources and offer an overview of how the estimates were made. Full details on the methodology, including sources for each market, are available on request from the first author.

Data Sources

Eight data sources were analyzed: (1) the National Health Expenditure Accounts (NHEA), (2) CMS Form 64 spending data, (3) CMS Form 372 spending data on Medicaid waiver services, (4) the Medicaid Statistical Information System (MSIS), (5) the Medical Expenditure Panel Survey (MEPS), (6) spending tabulations by provider category from nine States[2], (7) market studies (often done by provider associations) for 16 markets, and (8) the Economic Census. The spending figures in Table 1 sum to the CMS-64 total for Federal fiscal year 2003.[3] Because of differences among data sources in market definitions and time periods, we show market share estimates as 10-point ranges. For example, the Medicaid share of the market for physician services is shown as 5-15 percent, encompassing estimates based on the NHEA (7 percent), MEPS (8 percent), and the American Medical Association (13 percent).

Making Estimates

For 18 markets, spending data were based at least in part on the CMS-64 data. However, some line items on the CMS-64 include quite different provider categories. For waiver services, we therefore used the CMS-372 reports to compile spending data by provider category from all 252 waiver programs. The data were from 2002, so we applied percentage splits from 2002 to the CMS-64 waiver spending total from 2003. For markets where payments were made both inside and outside of waivers, we combined CMS-64 and CMS-372 data. Examples include personal assistance, case management, and skilled home health care.

In some cases (e.g., vision supplies, therapies, and behavioral health carveouts), data by provider category were not available from the CMS-64 or the CMS-372, but we were able to estimate Medicaid spending from other Federal Government sources such as MSIS and MEPS. In the remaining cases (e.g., ambulance, ASCs, durable medical equipment [DME]), we distilled our estimates from the best available evidence, including extrapolations from State-level spending data, interpolations from national all-payer spending data, and industry studies.

To estimate market shares, our first-line source was the NHEA, followed by MEPS. However, these sources were often not specific enough for our purposes. For 17 markets, our estimates reflect other sources, particularly industry studies. For four small markets (other care

[2] Data from Iowa and Virginia were available on the Internet (Iowa Department of Human Services, 2006; Virginia Department of Medical Assistance Services, 2005). Data from the District of Columbia, Florida, Mississippi, Montana, New Hampshire, Oregon, and Rhode Island were kindly made available by the State Medicaid agencies and are not a representative sample.

[3] The figures exclude spending on stand-alone State Children's Health Insurance Plans.

services, case management, other waiver services, and other carve-outs) we made assumptions based on Medicaid shares in related markets.

MEDICAID SPENDING AND MARKET SHARES

Table 1 presents estimates of Medicaid spending and market shares. In the following discussion, we offer highlights of the estimates that are not available from standard sources.

Acute Care Sector

Medicaid spending in the 17 acute care markets totaled $121.5 billion, approaching one-half of total Medicaid spending. In comparison with the CMS-64 data, Table 1 provides new detail on spending for community mental health centers; public health agencies; non-ambulance transportation, such as wheelchair vans; ambulance services; therapists (physical, occupational, speech-language and hearing); eyeglasses and other vision supplies; and ASCs.

Hospital inpatient care continues to be the single largest Medicaid expenditure, despite the growth in managed care and in various outpatient alternatives. It accounts for one-sixth of all Medicaid spending. Prescription drugs represented another 10 percent of spending in 2003, while payments for physician services represented 4 percent. In a program the size of Medicaid, it is notable how even small percentages of total spending represent hundreds of millions, or even billions, of dollars in payments for rarely studied services such as non-medical transportation, ambulance services, office-based therapy services, and various types of clinic services.

The acute care sector is dominated by Medicare and the private plans. Except for the prescription drug and dental markets, the consumer's share is modest. For most markets, Medicaid's share is less than 20 percent.

Mental health is the notable exception. Medicaid provides 75-85 percent of payments to community mental health centers, as well as 15-25 percent of funding for inpatient psychiatric facilities. A Federal study that took a broader perspective (including also professional services, psychotropic drugs, and care in general hospitals) found that Medicaid provides 27 percent of total funding for mental health care. When payments from other agencies are included, 50 percent of mental health funding comes from State and local governments. Their role, and especially that of Medicaid, has grown steadily over the past decade (Mark et al., 2005).

The market share data in Table 1 apply to provider markets broadly defined, but Medicaid's share of important submarkets can be significantly higher. Examples are obstetrics within the hospital and physician markets, where Medicaid pays for 41 percent of all births (Merrill and Steiner, 2006), children's hospitals, where Medicaid pays for 50 percent of inpatient days (National Association of Children's Hospitals and American Academy of Pediatrics, 2006); safety net hospitals, where Medicaid represents 37 percent of revenue (National Association of Public Hospitals and Health Systems, 2004); anti-psychotic drugs, where Medicaid pays for nearly 80 percent of retail pharmacy prescriptions (Duggan, 2003); psychiatric care for children and adolescents, where Medicaid represents 42 percent of pediatric patients served by mental health programs (Pottick et al., 2004); and care for people with AIDS, more than one-half of whom have Medicaid coverage (Weil, 2003).

LTC

Medicaid spending in the 10 LTC markets totaled $92.9 billion, or one-third of total Medicaid spending. In comparison with the CMS-64, Table 1 presents detailed estimates on payments for personal assistance, adult day services, case management, residential support, skilled home health care, DME, and miscellaneous waiver services.

Many of these services are paid for under home and community-based waivers, which give States broad discretion to cover services that can prevent placement in residential facilities, such as nursing facilities and intermediate care facilities for the mentally retarded (ICF-MRs). In recent years, spending on these waivers has grown almost twice as fast as Medicaid spending in general, yet only a few sources provide basic data. It is known, for example, that three-quarters of waiver spending goes to programs serving people with mental retardation and developmental disabilities (MR/DD). Almost all of the remainder is spent on programs for people needing help due to age and/or disability. Nationwide enrollment in waiver programs totaled 978,155 people in 2003, with annual spending per participant averaging $35,888 in the MR/DD waivers and $7,933 in the aged/disabled waivers (Kitchener et al., 2006).

Table 2 presents data on the services that waiver programs pay for. The major categories are adult day services, personal assistance, and residential support. Adult day services emphasize habilitation, that is, training in the activities of daily living. Essentially all of these waiver payments are in MR/DD waivers. Two-thirds of payments for assisted living arrangements and other forms of residential support are also in MR/DD waivers.[4] Two-thirds of waiver payments for personal assistance, on the other hand, are in aged/disabled waivers.

Our estimates distinguish between personal assistance (help with bathing, dressing, and other activities of daily living) and skilled home health care (skilled nursing care and/or therapy). Available data sources often comingle the two types of care, which in fact may be provided by the same agencies. Nevertheless, there are

Table 2

Estimated HCBS Waiver Payments: Federal Fiscal Year 2003

Waiver Category	Payments (In Millions)
Adult Day Services	$9,625
Habilitation	8,833
Supported Employment	440
Adult Care	352
Personal Assistance	4,188
Personal Assistance	3,960
Trained Support	191
Companion	38
Residential Support	3,671
Assisted Living	2,353
Homemaker	947
Foster Care	163
Meals	128
Home Modifications	73
Chores	7
Case Management	662
Skilled Home Health	484
Respite	375
Home Health	109
Other Practitioners	399
Nursing	332
Mental Health	64
Nutrition	4
Transportation Excluding Ambulance	184
Durable Medical Equipment	129
Therapists	76
Therapy	40
Speech Therapy	13
Physical Therapy	12
Occupational Therapy	11
Respiratory Therapy	1
Prescription Drugs	38
Miscellaneous Waiver Services	242
Miscellaneous	198
Personal Emergency Response Systems	44
Total HCBS Waiver	19,698

NOTES: HCBS is home and community-based services. Percentage splits from 2002 were applied to 2003 waiver spending totals from the CMS Form-64 (spending data).

SOURCE: State CMS Form 372 (spending data on Medicaid waiver services) for 2002 compiled by the University of California, San Francisco, Center for Personal Assistance Services.

[4] Though housing services in general are not considered health care, payments for these services are included in the NHEA under the other personal health care category.

important differences between the markets in law and in practice. While both Medicare and Medicaid must cover skilled care, Federal law tightly limits the Medicare benefit for personal assistance while making it an optional benefit for Medicaid Programs. States may also cover personal assistance under an HCBS waiver, and almost all do (Kitchener, Ng, and Harrington, 2005). While Medicare providers must be agencies primarily involved in providing skilled care, Medicaid providers usually need not offer skilled care and may be individuals, including family members (Summer and Ihara, 2005).

In practice, the Medicare benefit for services in the home emphasizes skilled care, often during recovery from a hospitalization, while the Medicaid benefit emphasizes personal assistance, often on a continuing basis. The difference comes through in the data: Among beneficiaries receiving either skilled care or personal assistance, the median length of home health service is seven times longer for Medicaid (339 days) than for Medicare (47 days) (National Center for Health Statistics, 2005).

A similar distinction matters in the market for nursing facility services. Medicare pays for skilled nursing care after a hospital stay; average length of stay (LOS) is 24 days and payment exceeds $300 a day (Medicare Payment Advisory Commission, 2005; American Health Care Association, 2005). Medicaid, meanwhile, is the major funder for people needing intermediate care. LOS is measured in months and years and payment rates average $100-$130 a day (Grabowski et al., 2004). A large gray zone exists at the definitional boundary between skilled nursing care and intermediate care, however. We therefore speak of one market for nursing facility services, but we will return to the distinction between the submarkets.

Overall, Medicaid is the single largest payer for LTC, representing 30-40 percent of payments. Its share is particularly notable for ICF-MR services and personal assistance. The presence of Medicare is felt in the markets for nursing facility care, skilled home health care, and DME. The other major sources of funding for LTC are typically consumers. Consumers (or their families) provide 35 percent of the funding for adult day services, for example (Cox, Starke, and Holmes, 2005). In the LTC markets, private plans play a minor role—just 5-15 percent of spending across the sector.

Managed Care

Medicaid spending on managed care was $40.2 billion, or 15 percent of Medicaid total spending. This percentage is in contrast with national data that show that 59 percent of Medicaid beneficiaries were enrolled in managed care in 2003 (Centers for Medicare & Medicaid Services, 2006). The apparent disconnect has two explanations. First, the standard definition of Medicaid managed care includes 6 million beneficiaries enrolled in primary care case management (PCCM) plans in which primary care providers (typically physicians) are paid a small monthly fee for coordinating the care received by Medicaid enrollees, with services such as hospital care continuing to be paid on an FFS basis (Garrett and Zuckerman, 2005). Because all services are paid FFS and the PCCM is not at financial risk for utilization, this is quite a loose definition of managed care. In our analysis, PCCM fees and other services provided to PCCM enrollees are included within the various acute care markets.

Second, the 17 million Medicaid enrollees in comprehensive, capitation-funded plans operated by MCOs tend to be children and their able-bodied parents. More

expensive populations—the elderly and people with disabilities—continue to be largely the responsibility of FFS Medicaid.

Medicaid has a 20-30 percent share of the nationwide market for comprehensive managed care, though wide variation exists at the State level. Spending by Medicaid MCOs, like spending on acute care in general, can be presumed to be heavily weighted toward hospitals, prescription drugs, and physician care, but no further detail is available.

In 2003, Medicaid also spent an estimated $2.9 billion on managed care carve-out plans for behavioral health care. Sixteen States reported beneficiaries enrolled in these plans (Centers for Medicare and Medicaid Services, 2006). Medicaid's share of this market (5-15 percent) is less than its share of mental health services overall. Another $600 million was spent on miscellaneous managed care carve-out plans, such as dental services.

MEDICAID'S ROLE AS A PURCHASER

In Table 3, we characterize each market by Medicaid's influence as a purchaser. In most cases, the characterization reflects market share. In three cases (nursing facilities, inpatient mental health facilities, and adult day services) we characterize the market as dominated by Medicaid even though the program's market share is under 50 percent. For nursing facilities, long Medicaid LOS means that Medicaid pays for 70 percent of bed-days (Grabowski et al., 2004). (Medicaid's influence is larger in the submarket for intermediate care than in the submarket for post-acute care, however.) For inpatient mental health facilities, State mental health policy (Medicaid plus other agencies) affects more than one-half of industry revenues. For adult day services, Medicaid is by far the single largest payer.

Medicaid in the Market

Most, but not all, of these markets are for acute care services. These services tend to be traditional health care, increasingly high-tech, with a central role for physician decisionmaking. The services received by Medicaid beneficiaries are similar to those received by other populations: office visits, hospital stays, drugs, and dental checkups.

In most of these markets, Medicare and the private payers set the pace. For example, Medicare is the single largest payer to hospitals, physicians, DME suppliers, and ASCs, and its payment methods and rates often serve as benchmarks for other payers (Dyckman and Hess, 2003). Data on industry organization and finances are usually readily available. Medicaid is just one among many influences on whether providers enter the market, how the industry is organized, the scope of services offered by providers, and the quality of care.

Much of the Federal regulatory framework, which was established when Medicaid played a much smaller role in the health care system, continues to fit these markets well. Coordination of benefits law requires that Medicaid be the payer of last resort, for example. As well, in defining adequacy of Medicaid payments, Federal law specifically compares access to services by Medicaid beneficiaries with access by the general population (Social Security Act, §1902(a)(30)(A)).

In setting payment rates, Medicaid Programs can, in effect, presume the availability of services and then set rates just high enough that providers will incur the incremental costs of serving Medicaid beneficiaries. This is exactly what we see in the market for hospital services, where Medicaid payment rates are consistently more than average variable costs, but less than average total costs (American Hospital Association, 2005).

Table 3

Characterization of Medicaid Purchasing Role, by Market: 2003

	Medicaid In the Market		Medicaid Is the Market	
Sector	Market	Payments (In Billions)	Market	Payments (In Billions)
Acute Care	Hospital Inpatient	$46.1	Inpatient MH Facility	7.6
	Prescription Drugs	26.6	Community MH Center	4.8
	Hospital Outpatient	10.1	Transportation Excluding Ambulance	1.1
	Physician	10.0		
	Dental	3.0		
	Other Practitioners	2.0		
	FQHC	1.2		
	Public Health Agencies	1.1		
	Ambulance Services	0.7		
	Therapists	0.7		
	Rural Health Center	0.5		
	Vision Supplies	0.5		
	ASC	0.3		
	Other Care Services	5.2		
	Subtotal	108.0	Subtotal	13.5
Long-Term Care	Residential Support	3.7	Nursing Facility	44.6
	Skilled Home Health	3.4	Personal Assistance	12.1
	Durable Medical Equipment	2.9	ICF-MR	11.7
	Hospice	0.9	Adult Day Services	9.6
			Case Management	3.7
			Miscellaneous Waiver Services	0.2
	Subtotal	10.9	Subtotal	82.0
Managed Care	Comprehensive	36.8		
	Behavioral Health Carve-Outs	2.9		
	Other Carve-Outs	0.6		
	Subtotal	40.2		
	Total	$159.1	Total	$95.5

NOTES: FQHC is federally qualified health center. ASC is ambulatory surgical center. MH is mental health. ICF-MR is intermediate care facility for the mentally retarded.

SOURCE: Quinn, K., ACS Government Healthcare Solutions and Kitchener, M., University of California, San Francisco.

In submarkets where Medicaid has a larger share than in the overall market, low payment rates may be less sustainable and adjustments necessary. This prediction is also validated in the marketplace. For example, the average State sets overall physician fees 21 percent below Medicare levels, but makes an exception for obstetric services, where the gap is only 6 percent (Zuckerman et al., 2004).

This observation—that Medicaid may pay more generously when it has a larger market share—is not predicted by the standard economic model, which predicts that purchasers with higher market shares will pay lower prices (Hirshleifer, 1988). This behavior does make sense, however, in a model where Medicaid is seen as maximizing the volume of care subject to a fixed budget constraint. In this case, Medicaid payment must cover average variable cost if beneficiaries are to have any access to care at all. If that access is to continue over time, then Medicaid also needs to cover some portion of average fixed cost. When Medicaid has a larger part of the market, its responsibility to cover average fixed cost is commensurately larger and its rates therefore higher.

This reasoning was explicitly employed by the Mississippi Medicaid Program when the State set 2008 rates for inpatient hospital care. Citing "…the importance of Medicaid funding in ensuring continued access to acute mental health care,…" rates were set so that payment-to-cost ratios would be higher for mental health than for inpatient care overall (Mississippi Division of Medicaid, 2007).

Medicaid Is the Market

Of the nine markets in which Medicaid is the dominant purchaser, the largest ones are in the LTC sector. Many of these services, such as personal assistance, extend traditional conceptions of health care. The services are often received by beneficiaries with significant, continuing conditions, such as mental retardation, serious mental illness, and stroke. Physician decisionmakers are usually in the background. Despite technology, much of the care remains high-touch in the amount of contact between patient and provider.

In many of these markets, providers have a relatively low public profile. Some readers of this article may be surprised to learn that Medicaid pays almost as much for adult day services ($9.6 billion) as for physician care, for example. Because Federal Government and private-sector data collection efforts are geared to markets dominated by Medicare and private plans, information can be sparse on markets dominated by Medicaid. The recent advances in the MSIS—which is much more comprehensive and useful than it was 5 years ago—will help States manage their Medicaid Programs. Nevertheless, significant data gaps remain, such as the overly broad categories for waiver services, clinics, and other.

When Medicaid is the market, the Federal regulatory framework often does not fit. For these services, Medicaid's role is often akin to the payer of first resort, because people without Medicaid can have great difficulty affording these services. Judging payment adequacy by considering access by non-Medicaid populations may not be meaningful.

As a purchaser, Medicaid may be almost a monopsonist. Medicaid purchases almost all care for people with MR/DD conditions, most of the LTC for people with physical disabilities, most of the care for people with AIDS, and much of the care for people with serious mental illness (Vladeck, 2003; Mark et al., 2005). In the absence of reference points from Medicare and private payers, States setting payment rates usually only have each other to look to. As previously noted, we would predict that Medicaid payment rates would cover a higher percentage of provider cost than when Medicaid is one among many payers in a market. Yet, in markets dominated by Medicaid it can be circular to compare costs and payments, because providers whose costs exceed Medicaid rates have trouble staying in business. Few studies exist on how Medicaid uses its purchasing power in these markets.

States may also need to take action to minimize their vulnerability to provider actions that take advantage of Medicaid policies in ways that are viewed as undesirable. Medicare has faced this challenge repeatedly, for example in skilled home health care, oxygen therapy, and post-acute skilled nursing care (Newhouse, 2006). Though this vulnerability could develop for any payer, public-sector payers may be more susceptible because of the sticky nature of administered pricing regimes.

A particular problem can arise when codified payment formulas assume that Medicaid is one among many payers when in fact it is dominant. For example, in 2003 Medicaid had 15-25 percent of the prescription drug market overall, but almost 80 percent of the market for antipsychotic drugs. An examination of the market for the top 200 drugs nationwide found that antipsychotics, HIV/AIDS drugs, and other drugs with high Medicaid market shares tended to have higher prices than drugs with low Medicaid market shares (Duggan and Scott-Morton, 2006). The result was predictable because Medicaid Programs have typically paid

a percentage of manufacturer prices. When a manufacturer sets a high price for a drug that has a high Medicaid market share, any loss in sales to non-Medicaid purchasers is outweighed by higher revenues from Medicaid. Similar traps await Medicaid Programs that calculate payments based on provider charges or cost. Paying ICF-MRs based on their cost is likely to lead directly to higher cost, for example.

Standard economic and regulatory theory would suggest that in markets and submarkets dominated by Medicaid, the program may have strong influence over issues including access to care and quality of care. A main reason why almost all ICF-MRs have fewer than 16 residents, for example, is that Medicaid Programs wanted to shift care to home-like living situations (Bishop, Visconti, and Long, 2003). Less progress has been made on using purchasing muscle to improve the quality of care in either ICF-MRs or nursing homes (Kitchener and Harrington, 2004). In all the recent nationwide discussion on quality, mention of personal assistance, mental health, MR/DD services, and other Medicaid-dominated markets has been notable by its absence.

Purchasing Managed Care

Although we characterize the typical Medicaid Program as "in the market" for managed care, a few additional comments are appropriate. State-to-State variation in Medicaid market share ranges more widely for managed care than for FFS care. While some States had no Medicaid MCO enrollees in 2003, Medicaid represented more than one-half of MCO enrollment in States such as Arizona, Tennessee, and Oklahoma.

In understanding marketplace dynamics, it also matters that the number of MCO providers is small. Of the 39 States with comprehensive Medicaid managed care plans in 2003, 23 had 5 or fewer plans (Centers for Medicare & Medicaid Services, 2006). More and more, these plans exist to serve Medicaid; there are fewer examples of MCOs adding on Medicaid enrollees to their other business (Draper et al., 2004).

This marketplace structure approaches that of bilateral monopoly, where transactions, terms, and prices are notoriously difficult to predict (Friedman, 1990). In fact, Holahan and Suzuki (2003) did find extraordinary variation in managed care payment rates among States. Even after they undertook extensive adjustments for differences in plan design, substantial variation (twofold) in prices persisted. They also describe an idiosyncratic price-setting process that typically reflects a blend of administered prices, individual negotiation, and competitive bidding.

CONCLUSION

It is often remarked that Medicaid offers at least two distinct programs to its beneficiaries. One program is coverage of acute care services very similar to traditional insurance. The other is coverage of LTC, where Medicaid coverage is much more comprehensive than that of other payers.

This analysis has shown that Medicaid also plays two distinct roles as a purchaser. In the markets for most acute care services, its modest share makes it something of a follower. In the markets for most LTC services and in certain acute care submarkets, however, its dominant role gives it greater opportunities and responsibilities. Understanding this difference is essential when conducting analysis and making

decisions with regard to access, coverage, payment, and quality of care.

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