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Physician Earnings At Risk: An Examination Of Capitated Contracts

What physicians don’t know about managed care capitated contracts could put them—and their patients—at risk.

by Carol J. Simon and David W. Emmons

As managed care plans face increasing pressure to rein in expenditures, many are focusing on designing reimbursement systems that reward physicians for practicing in a cost-conscious manner. Discounted fee-for-service plans have a mixed record on cost control, in part because of the difficulties in managing utilization.

Capitation breaks the link between higher utilization and higher physician reimbursements. Under capitation, insurers pay physician practices a fixed fee—generally, an actuarial per-member-per-month (PMPM) payment that is applied to a panel of plan enrollees. Physicians assume responsibility for the costs of the treatments they provide and may also be responsible for the costs of referrals, laboratory tests, and hospital services. In this manner, insurers shift the cost of treatment and much of the traditional insurance risk directly to physician practices and, directly or indirectly, to physicians themselves.

This paper uses 1995 data from a nationally representative physician survey to (1) document the prevalence of capitation; (2) analyze the geographic, specialty, and practice characteristics of capitated practices; and (3) examine the degree to which physician earnings are at risk. We find that capitation is widespread, and physician involvement with capitated contracts increased sharply between 1994 and 1995. As of mid-1995 more than 33 percent of patient care physicians were in a practice that had at least one capitated contract, up from 26 percent in 1994. Capitation varies substantially by geographic region, specialty, and practice size.

Physicians with capitated contracts are bearing significant amounts of risk: Among practices with contracts, nearly 20 percent of all revenues are capitated. Furthermore, only a small proportion of practices may be making use of reinsurance or stop-loss provisions that would limit downside losses.

METHODS

Data are drawn from the 1995 American Medical Association (AMA) Socioeconomic Monitoring System (SMS), an annual telephone survey of the active, patient care, postresidency physician population in the United States. More than 4,100 responses were obtained in 1995, representing a response rate of 59 percent. All statistics reported in this paper are weighted to correct for nonresponse bias. In contrast to our analysis, other studies of physician capitation have collected data from selected, large physician groups or small samples of managed care plans that may not represent national trends.

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The SMS obtains information on practice characteristics and finances, income, physician activities, and managed care contracting. In 1995 the survey asked (1) the number of capitated contracts held by the practice, (2) the share of total practice revenues earned from such contracts, and (3) for primary care physicians, whether they had reinsurance and stop-loss provisions.

Here we focus on the share of practice revenues derived from capitated contracts as a measure of the risk that physicians and practices bear. This measure shows dependence on capitated contracts and serves as a proxy for the likelihood that the practice will be at risk for covering catastrophic medical costs. A measure of actuarial risk would be preferred, but such data are not available.

**Geographic Patterns**

Local differences in the mix of managed care plans, market maturity, and competition all contribute to differences in the contracts that are written between plans and physicians. Capitated contracts are most frequently written by health maintenance organizations (HMOs) or individual practice associations (IPAs). Preferred provider organizations (PPOs) and other network forms of managed care infrequently capitate physician practices, relying instead on discounted fee-for-service payments. Our data show that only 23 percent of physicians in practices with HMO contracts reported any capitated HMO contracts. Fewer than 5 percent of physicians with PPO contracts indicated that any of those were paid on a capitated basis. Discounted fee-for-service remains the dominant form of payment under managed care.

Exhibit 1 provides detail on geographic variation in contracting patterns in 1995. New England led the nation with nearly 42 percent of physicians reporting capitated contracts in 1995. New England also posted the largest increase in the incidence of capitation—thirteen percentage points in one year. This regional pattern is driven, in part, by contracting patterns in Massachusetts, where 46 percent of physicians reported being in a practice that earned some revenues on a capitated basis. HMOs are more likely than other managed care entities to use capitation, and Massachusetts has the highest proportion of privately insured individuals enrolled in HMOs. Massachusetts physicians (at about 17 percent) trail slightly behind the national average, however, in the share of practice revenues that are capitated. Several factors may contribute to the gap, including delays between the time plans contract with providers and subsequent growth in patient panels, or lower market PMPM rates.

Capitation was also more prevalent than the national norm in the Pacific and Mountain regions. California, a state widely perceived as a barometer of the effects of managed care, led neither the nation nor its region in proportion of physicians in capitated practices. California physicians, however, had the highest share of capitated practice revenues—about 29 percent, versus 27 percent for the region and 19 percent nationally.

Survey results for Minnesota, where large managed care organizations have long dominated the Twin Cities, may appear surprising. Minnesota physicians earn a larger share of their revenues from managed care at almost 46 percent, versus 36 percent nationally. Yet Minnesota physicians were less likely to be in practices operating under capitation, and their practices' share of capitated revenues was not statistically different from the national norm. These findings corroborate the evolution of HMOs in the Twin Cities. At the time of its creation in 1992, HealthPartners, which had more than 45 percent of the HMO enrollment in the area, paid providers on a discounted fee-for-service basis.

Both managed care contracting and the share of practice dollars earned from capitation were generally lowest in the southern states. Tennessee stands out as an exception to these patterns. More than 91 percent of Tennessee physicians were in practices with at least one managed care contract in 1995; 33 percent held at least one capitated contract; and capitated contracts in Tennessee generated nearly 23 percent of total practice reve-
nues. One driver behind managed care’s push into Tennessee has been the state’s Medicaid managed care program, TennCare. Beginning in 1994, TennCare enrolled Tennessee’s Medicaid population and 400,000 previously uninsured persons into managed care plans.7

**Capitation by Specialty**

The prevalence of capitation varies by specialty (Exhibit 2). Primary care physicians, in the gatekeeper role, are best positioned to affect utilization, making them logical candidates for capitation. General family practitioners (50 percent), general internists (48 percent), and pediatricians (64 percent) were most likely to have capitated contracts in 1995. Only 21 percent of obstetricians and gynecologists were capitated.8

There is less variation by specialty in the share of practice revenues earned under capitation than in the prevalence of capitation. Among all physicians in practices with contracts, 19 percent of practice revenues were derived from capitation. Among specialists, the range was from 31 percent for psychiatrists to less than 10 percent for pathologists.

**Capitation by Practice Size**

There are likely to be economies of scale associated with risk bearing and in the utilization management activities necessary under capitation: This is borne out in our data. Large practices are most likely to enter into capitated arrangements. Further, among capitated practices, larger practices earn a greater share of practice revenues from capitated contracts than do smaller practices. A little more than one-fourth (26.6 percent) of solo practitioners and approximately one-third (31.6 percent) of physicians in small practices (two to five phy-
EXHIBIT 2
Capitation By Specialty, 1995

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Percentage of physicians with one or more capitated contracts</th>
<th>Percentage of practice revenues capitated</th>
<th>Average number of capitated contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary care physicians</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General family practice</td>
<td>50.2%</td>
<td>21.5%</td>
<td>3.3</td>
</tr>
<tr>
<td>General internal medicine</td>
<td>47.8</td>
<td>19.2</td>
<td>3.3</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>63.8</td>
<td>23.7</td>
<td>3.3</td>
</tr>
<tr>
<td>Specialists</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal medicine: subspecialty</td>
<td>32.7</td>
<td>16.2</td>
<td>3.1</td>
</tr>
<tr>
<td>General surgery</td>
<td>18.4</td>
<td>21.6</td>
<td>5.2</td>
</tr>
<tr>
<td>Surgical subspecialty</td>
<td>21.7</td>
<td>12.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Obstetrics/gynecology</td>
<td>20.6</td>
<td>16.3</td>
<td>2.7</td>
</tr>
<tr>
<td>Radiology</td>
<td>30.8</td>
<td>14.4</td>
<td>2.7</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>17.0</td>
<td>31.0</td>
<td>2.8</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>15.7</td>
<td>18.6</td>
<td>5.8</td>
</tr>
<tr>
<td>Pathology</td>
<td>25.5</td>
<td>9.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Emergency medicine</td>
<td>24.8</td>
<td>17.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Other specialties</td>
<td>21.2</td>
<td>25.4</td>
<td>5.9</td>
</tr>
<tr>
<td>All physicians</td>
<td>32.5</td>
<td>19.2</td>
<td>3.3</td>
</tr>
</tbody>
</table>

*p-value for equality of means across specialty*  
*p = .001*  
*p = .003*  
*p = .116*

**SOURCE:** American Medical Association Socioeconomic Monitoring System survey, 1995.

physicians) accepted capitated contracts in 1995 (Exhibit 3). Three-fourths of physicians in practices with more than fifty physicians reported that their practices accepted capitation. Physicians in solo and small-to-moderate-size groups (with contracts) reported that 15–20 percent of practice revenues were earned from capitated payments, whereas 38 percent of revenues were capitated in the largest groups.

**HOW MUCH RISK?**

As a practice moves from a fee-for-service environment toward one that is fully capitated, profitability hinges less on the ability to maintain a steady stream of patient visits and more on the ability to manage and potentially limit utilization. Variability in the cost of care places a practice and its owners at risk.

Although the average physician reported that 19 percent of practice revenues were capitated, most practices do not have large shares of capitated revenues (Exhibit 3). Fifty-seven percent of physicians indicated that their practices earned 10 percent or less of total revenues from capitated payments; another 15 percent reported that only 11–25 percent of revenues came from capitated contracts; and only 6.8 percent of physicians were in practices that earned 75 percent or more of revenues from capitated sources.

The largest practices have the largest shares of capitated revenues, while most smaller practices with contracts earn only a small fraction of revenues from capitation: 61 percent of solo practitioners earned less than one dollar in ten from capitation in 1995; only 6 percent received more than 75 percent of their revenues from capitation; and fewer than 2 percent earned more than 90 percent of revenues from capitation. This pattern does
not vary until one moves to physicians in the largest practices (fifty-one or more physicians): 26 percent of these physicians’ practices earned more than 75 percent of total practice revenues from capitation in 1995, and 12 percent earned more than 90 percent of practice revenues under capitation. Practices with more than fifty physicians make up less than half a percent of all practices in the United States, but they account for 10 percent of all practices with capitated contracts.

### LIMITING THE RISK

Physicians can limit risks associated with capitation by obtaining reinsurance against large losses or by including stop-loss provisions in their contracts. Reinsurance protects the physician against the likelihood that an individual patient, or a group of patients, requires exceptionally expensive treatment. Typically, if a physician’s expenditures on covered services exceed a certain dollar amount, reinsurance covers all or most of any additional charges to the physician for that patient’s care. Reinsurance may be provided as part of the capitated contract, or policies may be purchased separately. Stop-loss provisions work in a similar fashion but are an integral part of the contract between physicians and health plans. For example, physician liability per patient would be limited to $25,000 per plan year. The plan would be liable for covered medical expenses in excess of the stop-loss limit.

Primary care physicians who reported capitated contracts on the 1995 SMS were asked whether their practice had reinsurance and stop-loss provisions (Exhibit 4). It is important to note that 54 percent of those physicians did not know whether there were stop-loss provisions in their contracts, and 56 percent did not know if they had reinsurance. Response rates for the reinsurance and stop-loss questions did not vary significantly by practice size.

Most capitated primary care physicians (86 percent) reported that neither they nor their practice had reinsurance for their capitated contracts in 1995 (Exhibit 4). The likelihood that a physician was in a practice that reinsured risk increased with practice size: 5 percent of solo physicians carried reinsurance, whereas 59 percent of physicians in groups with more than fifty physicians had a reinsurance contract.

Just over half (53 percent) of the capitated
primary care physicians reported stop-loss provisions on at least one capitated contract, and again, the largest practices were the most likely to have stop-loss provisions. A practice’s dependence on capitated revenues did not influence reinsurance: Physicians in practices with a large share of capitated business were neither more nor less likely than physicians in practices with less capitated revenue to report reinsurance or stop-loss protection.

**Policy Implications**

The contracting patterns identified in this analysis raise interesting policy questions. First, they suggest that practice size is important in determining physicians’ willingness and ability to take on capitated business. Clearly, for capitation to replace fee-for-service medicine, smaller practices would have to increase their involvement in capitation markedly. However, to do so effectively, small practices will need to enhance their ability to bear risk, whether through the use of reinsurance, other risk-management strategies, or mergers with larger organizations.

Second, one-fourth of solo practitioners have capitated contracts, and among these practices capitated payments make up 17 percent of their revenues. One in fifteen capitated solo physicians is predominately capitated. It is questionable whether small practices, particularly solo practices, receive patient panel sizes that are large enough to pool the risks that they are assuming. Capitation requires greater emphasis on utilization management than has been typical to date in physician practices. It is not known whether small practices have either sufficient financial reserves or access to capital outside the practice to enable them to invest in the information systems needed to track utilization and manage capitation.

Third, many physicians are in practices that have neither stop-loss provisions nor reinsurance contracts to limit downside losses. These facts, coupled with the prevalence of capitation among even the smallest group and solo practices, raise the concern that physicians may be entering into contractual arrangements that carry excessive financial risk. The finding that a large percentage of physicians were unaware of contract provisions is also troubling. Physicians in large practices that employ professional managers might be expected to be unaware of contract terms. However, the finding that solo and small-practice physicians are unfamiliar with fundamental terms of their capitated contracts suggests that they may be taking on contracts without understanding the risks involved. There is considerable concern among both policy analysts and regulators that imprudent risk bearing could lead to financial distress and provide incentives for the delivery of inadequate care to patients who have “already paid for their care.”

Our study has several limitations. The survey did not obtain information on reinsurance

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**EXHIBIT 4**

Stop-Loss Provisions And Reinsurance On Capitated Contracts: Primary Care Physicians With Capitated Contracts, 1995

<table>
<thead>
<tr>
<th>Number of physicians in practice</th>
<th>Proportion of physicians with reinsurance</th>
<th>Proportion of physicians with stop-loss provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None on any contracts</td>
<td>On some contracts</td>
</tr>
<tr>
<td>1</td>
<td>95%</td>
<td>2%</td>
</tr>
<tr>
<td>2–10</td>
<td>91%</td>
<td>4%</td>
</tr>
<tr>
<td>11–50</td>
<td>85%</td>
<td>7%</td>
</tr>
<tr>
<td>51 or more</td>
<td>41%</td>
<td>40%</td>
</tr>
<tr>
<td>All physicians</td>
<td>86%</td>
<td>7%</td>
</tr>
</tbody>
</table>

**Source:** American Medical Association Socioeconomic Monitoring System survey, 1995.
from non–primary care physicians. We cannot evaluate the use of gatekeeping, pre-authorization for specialty referrals, practice guidelines, and subcapitation arrangements that may attenuate risks associated with capitation. Nor can we address whether capitated contracts are global, placing the physician at “extreme risk” for virtually all services, or whether contracts cover only physician services typically provided by the practice.

Finally, while there has been substantial growth in capitation, fee-for-service reimbursement still dominates. Research has shown that providers respond to cost containment incentives when reimbursements are prepaid or capitated. Still, little is known about the overall levels of cost saving or the quality of care that results. Whether capitation emerges as a dominant cost-saving tool will depend on whether the costs and barriers associated with implementing capitation can be successfully overcome in a manner that ensures the delivery of appropriate care.

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NOTES


5. Hoechst Marion Roussel, Managed Care Digest (Kansas City, Mo: Hoechst Marion Roussel, 1996).


8. The AMA recognizes obstetricians and gynecologists as primary care physicians. We categorize them here as specialists because their contracting patterns are empirically closer to those of specialists than to those of primary care physicians.


10. Physicians in small practices are generally more likely to be able to answer questions about managed care contracts and practice finances. Item nonresponse rates for the managed care questions are 2–9 percent for solo practices and 7–14 percent for practices with 51+ physicians. Differences in response rates, however, are not statistically significant except when comparing the smallest groups with the 51+ physician groups.


