

# Quality Standards and Incentives in Managed Care Organizations' Specialty Contracts for Behavioral Health

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## Abstract

**Background:** In the US, most privately insured individuals are enrolled with managed care organizations (MCOs), and a majority of these organizations have subcontracted responsibility for behavioral health care to specialized vendors. Based on economic theory, we anticipate that MCOs should be more likely to require quality standards in contracts that transfer all financial risk to the vendor.

**Aims of the Study:** To test whether use of quality standards in behavioral health subcontracts differs between MCOs that transfer full financial risk and other MCOs. Similarly, to test for differences between for-profit and nonprofit MCOs.

**Methods:** Bivariate tests and logistic regression analysis of the use of five quality-related standards, and the use of any standard, in a nationally representative sample of commercial MCO products in 60 US market areas. Statistical controls include MCO size, chain affiliation, region and market size.

**Results:** All five standards we examined were widely used in behavioral health subcontracts (varying from 47% to 70% of products). However, contrary to our hypothesis, the standards are not more commonly used by MCO products with unlimited capitated contracts for behavioral health. In most cases the opposite is true. In addition, for-profit plans were more rather than less likely to use several of the standards.

**Discussion:** MCOs that transfer full risk may be using mechanisms other than quality standards (e.g. periodic rebidding) to prevent skimping; may be less concerned about quality anyway; or may be more skeptical about the value of existing standards. The fact that for-profit plans are equally or more likely to use these standards may reveal that their objectives are not different from those of nonprofits, or that competition is constraining them to adopt standards anyway. Limitations of this study include the lack of more detailed data on the nature of financial risk-sharing, and on the types of financial penalties associated with each standard.

**Implications For Health Policy:** Pressure for accreditation appears to be an effective vehicle for encouraging the spread of standards. It

would be useful to know how far use of these quality standards in contracts is linked to better quality of care.

**Implications For Future Research:** Further studies should examine the relationship between quality standards and quality of care.

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## Introduction

The US health care system has experienced major changes in financing and organization during the last ten years, many of which are summarized by the term 'managed care'. These changes have been particularly marked for substance abuse and mental health care, with large reductions in costs and an accelerated shift away from inpatient settings.<sup>1</sup> One key change has been the evolution of most Americans' medical plan enrollment from indemnity plans to managed care plans which control costs by contracting only with selected providers, managing utilization and altering provider financial incentives. Also important has been the emergence of specialized firms, known as managed behavioral health organizations (MBHOs) that manage mental health and substance abuse service delivery. Many health plans have contracted with MBHOs for management of behavioral health, creating a separation (or 'carve-out') from the way general medical care is managed. Similarly, many large employers and Medicaid programs have contracted directly with MBHOs, bypassing the medical plans.<sup>2,3</sup> These arrangements have spread rapidly in the last decade.

Observers have expressed concern as to how MBHO carve-outs may affect patient access and quality.<sup>4</sup> In particular, some contracts place the MBHO fully at risk for treatment costs, creating potential incentives to skimp on quality in order to save money. On the other hand, contracts often include standards for quality-related measures, and these might counter the risk of quality reduction.

In this paper, we examine the extent to which managed care organizations (MCOs) use quality standards in their contracts with MBHOs. Specifically, we test the hypothesis that quality standards are more common in fully capitated contracts, as these offer the strongest incentive to reduce costs.

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## Conceptual Framework

MCOs are the dominant form of private insurance in the US, enrolling 92% of Americans with employer-sponsored insurance.<sup>5</sup> MCO products vary in stringency of management approach from health maintenance organizations (HMOs: a tighter model) to preferred provider organizations (PPOs), with point-of-service plans providing an intermediate case. Some MCOs offer one type of product (usually HMO or PPO); many offer multiple types of product. However, in many cases an MCO enrollee who needed specialty behavioral health care would not arrange it through his/her MCO but rather through a contracted MBHO. This could occur either because the enrollee's employer has a direct contract with an MBHO, or because the MCO has subcontracted behavioral health responsibility to an MBHO. Recent data report that a majority of MCO commercial products subcontract with MBHOs for some or all behavioral health care.<sup>6</sup> MCOs may choose to delegate this activity to reduce costs, protect quality, or because they see managing behavioral health care as differing in important ways from their 'core business'.<sup>7</sup>

In writing contracts with MBHOs, an MCO may be expected to have some concern for the quality of care provided by its subcontractor. Possible reasons include: genuine altruism and concern for patients, fear of legal liability for subcontractor negligence, fear of lost reputation for the organization as a whole, and belief in the risk of higher costs later (whether behavioral or general medical) if current behavioral health problems go untreated. Each of these reasons may be more or less salient for particular MCOs: for example, organizations facing high enrollee turnover may pay less attention to general medical-behavioral cost 'offsets' that would take many years to materialize. Similarly, MCOs must consider how their quality decisions affect their ability to sell to purchasers (mostly employers), who in turn vary in how they weight price and quality. Although some quality improvements actually reduce cost, industry observers typically assume a cost-quality tradeoff.

MCOs buy care from MBHOs through bilateral contracts typically lasting a year or more, in a context where the MCO cannot costlessly observe all aspects of the subcontractor's quality provision. This situation thus corresponds to a widely studied principal-agent problem of relational contracting under asymmetric information.<sup>8</sup> In this framework, principals (here: MCOs) have various mechanisms available to encourage subcontractors (here: MBHOs) to maintain high quality and contain costs. Below we discuss theory and evidence for three such mechanisms: risk transfer, rebidding and quality standards. Our discussion draws on similar analyses of employer-MBHO contracts.<sup>9</sup>

### Risk Transfer

One contractual mechanism commonly used in US health care is the degree of financial risk for marginal cost transferred to the contractor, which can range from no risk (e.g. cost reimbursement) to full risk (e.g. capitation, where a plan receives a fixed sum per enrollee regardless of actual cost). It

is widely assumed that the more risk health care organizations bear, the more actively they will manage cost and utilization (and the more potential negative impact on quality).<sup>10</sup> In the behavioral health industry, in addition to no-risk contracts (known as 'administrative services only' (ASO)) and fully capitated ones, one finds intermediate forms which require, for example, the MBHO to bear a portion of cost overruns above some global target level per member.<sup>2</sup> Almost all MBHOs are investor-owned, making it even more plausible that they will respond more to contracts where they bear financial risk. The evidence supporting this assumption is mixed. A variety of studies using pre-post designs found that costs and utilization fell after enrollee groups moved from unmanaged insurance to arrangements where an MBHO bore some risk. For example Brisson<sup>11</sup> found that one MCO's inpatient substance abuse treatment cost per enrollee decreased 72% after the MCO changed the terms of its external contract from ASO to full-risk for inpatient services. Large decreases have also been reported from case studies where MBHOs were placed at partial or full risk either by Medicaid<sup>12,13</sup> or state employee programs.<sup>14-16</sup> (The empirical literature is reviewed more fully elsewhere).<sup>17-19</sup>

In each of these pre-post studies, however, the introduction of MBHO risk-sharing was accompanied and potentially confounded by other important changes such as formation of discounted provider networks or the simple act of creating a separate care management system for behavioral health. This limitation was partially addressed in two cross-sectional studies by Sturm,<sup>20,21</sup> which found no difference in initial access to behavioral health between the ASO and capitated plans of a single large vendor (although cost per user was lower in capitated plans.) Another complication is that the marginal rate of risk-sharing may not fully characterize the MBHO's incentive, as even many full-risk contracts include caps on profits and losses.

### Periodic Rebidding

A second mechanism MCOs can use to influence subcontractor behavior is by periodic rebidding of contracts. Fear of losing a contract at rebid may elicit cost-minimizing behavior from MBHOs even if they are not at risk for marginal cost (i.e., under an ASO contract). In theory, the strength of this mechanism depends on the credibility of the MCO's threat to switch vendors, which in turn depends on factors such as the cost of switching vendors.<sup>22</sup> The threat may also be ineffective if the vendor has lost interest in retaining the contract, for example because it has found it unprofitable. Nonetheless, some authors have turned to dynamic incentives to explain the large cost reductions achieved even by MBHOs not at risk<sup>14</sup> or the mixed results on association between MBHO risk and utilization rates.<sup>20</sup> Similar incentives could result from the MBHO's desire to attain a public reputation for reducing cost even if a particular contract does not reward this.

### Quality Standards

The third way MCOs might influence the quality of services

MBHOs provide is to specify performance standards related to quality in their contracts. The techniques for doing this are at an early developmental stage, however. Existing approaches to quality standards include requiring satisfaction surveys of consumers or providers and process or administrative measures of how quickly the MBHO handles telephone calls or processes requests for behavioral health referrals.<sup>24</sup> For example, the standard may require the MBHO to provide referrals within 2 hours for emergency requests or within two working days for all routine requests. Another common standard requires that the MBHO have a quality assurance system in place, that is, the ability to identify and correct any quality problems, and to monitor ongoing performance. MCOs presumably decide which standards to use based on the costs of collecting the information as well as the benefits in terms of quality improvement, marketing, and so forth.

Other available standards relate to quantitative performance measures required by independent accreditation agencies. For example, MCOs seeking accreditation from the National Committee for Quality Assurance (NCQA) are asked to supply detailed data for the Health Plan Employer and Data Information Set (HEDIS). The behavioral health measures requested from plans in the 1999 HEDIS included rates of follow-up after hospitalization for depression; duration of antidepressant medication management; and various measures of mental health and substance abuse utilization. Including these standards in a contract might allow an MCO to detect certain types of quality violations but perhaps not necessarily to assure consistently high quality. Many MCOs consider accreditation a crucial marketing tool. For the period of our data (1999), NCQA offered accreditation for HMOs but not for PPOs, creating differential incentives which we investigate below.

A separate issue is that because quality is multidimensional, monitoring only a few measures may result in worse outcomes for unmeasured variables<sup>25</sup> and distort quality overall.<sup>26</sup> Nonetheless, prior research has documented that half of Fortune 500 employers and 80% of MCOs use quality-related standards in their contracts with MBHOs.<sup>27,6</sup>

### *Hypotheses about Use of Quality Standards*

How would a principal be expected to choose or combine these three different mechanisms? Hueth *et al.*<sup>28</sup> report that in the perishable produce industry, quality monitoring functions as a substitute for other mechanisms such as risk-sharing, possibly because of the costs of monitoring. This matches a common theme in the health policy debate, that greater quality monitoring is needed the more risk is transferred. For example, Medicare has historically devoted substantial effort to monitoring quality in its capitated HMO plans<sup>29</sup> but less to the fee-for-service sector. By implication, quality standards should be more common in capitated MCO-MBHO contracts than in those where the MBHO bears little or no risk. Similarly, MCOs may view caps on profits and losses as an alternative way to discourage undertreatment in capitated contracts, in which case their use would be negatively correlated with use of quality standards. In summary, quality

standards should be complements to risk transfer, and substitutes for risk limitation. Thus, we test the following hypotheses:

- H1. Contracts where the vendor bears full risk will be more likely to include quality standards.
- H2. Among full risk contracts, those with caps on profits or losses will be less likely to include quality standards.

In addition, MCOs may differ in their objectives, and attach different weight to quality. For example, many observers believe that for-profit health plans are likely to attach less weight to quality than other plans, because of the pressure to meet shareholder demands.<sup>30</sup> Therefore we test two additional hypotheses:

- H3. For-profit MCOs are less likely than others to use quality standards.
- H4. Among MCOs with full-risk contracts, for-profits are less likely than others to use quality standards.

## **Methods**

### *Data Collection*

The data come from a nationally representative survey of MCOs in the US, which sought information about their behavioral health care arrangements for commercial products provided in calendar year 1999. The questions used in this paper come from the survey's administrative module, which was completed by interviewing a senior administrator or his/her designee.

### *Selection of Sites*

The primary sampling units (PSUs) were the 60 market areas previously selected for the Community Tracking Study (CTS), a longitudinal study of US health system change funded by the Robert Wood Johnson Foundation and described more fully in Kemper *et al.*<sup>31</sup> The CTS aimed for a nationally representative selection of sites.

### *Sampling of MCOs*

The units of analysis at the second stage were the MCOs serving the market area defined by a PSU. MCOs serving multiple market areas were defined as separate MCOs for the study and data were collected with reference to the specific market area defined by a PSU. This approach was taken as the best way to develop reliable national estimates given likely variation across market areas within each MCO entity.<sup>32</sup>

Within each market area, we used the Follow-Back Survey, a component study to the CTS, to develop a sample frame of market-specific health plans. Of the 720 health plans contacted, 473 met study eligibility criteria, and of these 434 (92%) responded. Each MCO was asked to enumerate the products it offered and report on its three commercial products with the

Table 1. Characteristics of MCO products with specialty contracts

	Percent of products (weighted)
All products	100.0%
Product type	
HMO	55.3%
PPO	19.3%
POS	25.4%
Is vendor fully capitated?	
Yes, with no limits	16.0%
Yes, with limits	46.6%
No	19.1%
Missing	18.2%
Tax Status	
For-profit, privately held	10.2%
For-profit, publicly held	70.3%
Nonprofit	19.5%
Is MCO a subsidiary?	
Yes	78.3%
No	21.7%
Region	
Central	24.3%
Northeast	10.8%
South	41.9%
West	23.1%
MCO's enrollment	
Under 10,000	34.9%
10,000-49,999	37.4%
Over 50,000	20.4%
Missing	7.3%

Note: Sample includes all MCO products with specialty contracts (weighted N=3691)

largest enrollment. For the overall study, 787 products are available for analysis, but only 458 of these covered behavioral health through an external contract with an MBHO. This paper starts by describing those 458 products, but for multivariate analyses we use only those products that also reported data on both their risk-sharing approach and total commercial enrollment (n=364). The study methodology is reported in greater detail elsewhere.<sup>6</sup>

Weights were developed for selection probability and nonresponse, and represent national estimates about MCO characteristics, both overall and by product type.

### Variables

The key questions for this paper asked whether the MCO's contract with a specialty MBHO included written performance standards for each of the following quality-related areas: provider satisfaction; patient satisfaction;

quality assurance system; speed of clinical referral, and HEDIS behavioral health measures. These were also used to construct a separate variable indicating presence of any quality-related standard.

Plans were also asked about payment arrangements, including who keeps profits or bears losses if costs diverge from a preset target. Based on responses we classified plans as transferring full risk ('capitated'), partial risk or no risk (as the 'partial risk' group is small, it is combined with 'no risk' for the current paper). In addition, many plans with full-risk contracts place caps on MBHO profits and losses beyond some cutoff point. These plans are classified as 'capitated with limits'.

Several other characteristics of the MCO are included as control variables. These include its product type (HMO, PPO or POS); its ownership (nonprofit; publicly held for-profit, i.e. one which offers its stock for sale; or privately held for-profit, which does not); and each MCO's commercial enrollment in the market area. Enrollment is based on our survey data for the approximately 40% of responding MCOs that provided valid responses to these items. In other cases, we use a combination of sources including MCO website searches, industry directories, and state departments of insurance.

The following characteristics of the MCO's market area are included as control variables: area population, census region and number of HMOs present in the area. The latter variable is intended to capture the extent of potential competition among managed care plans, which might affect decisions about quality-related standards.

In addition, we include dummy variables for the three largest MBHO vendors, to control for the possibility that an MBHO might have a standard approach across contracts and that this rather than MCO characteristics could account for results. The three largest vendors were named by 39% of MCO products with specialty contracts; remaining MBHOs have considerably smaller shares of this sample.

### Data Analytic Procedures

Chi-square tests are used to test the significance of bivariate associations between product characteristics and the use of various quality-related standards. In addition, logistic regression techniques are used to estimate the independent effects of the various explanatory variables. SUDAAN software<sup>33</sup> is used to allow correction of standard errors for complex survey design. All data presented in this paper are weighted.

### Results

Below we describe the characteristics of the MCOs studied, report bivariate associations between quality standard use and each characteristic, and present logit regression results on the predictors of using each standard.

#### MCO Characteristics

Most MCOs with specialty carve-out contracts place MBHOs

Table 2. Proportion of MCO products using various quality standards. By product characteristics

	Quality assurance	HEDIS	Patient satisfaction	Provider satisfaction	Speed of clinical referral	Any quality-related standard
All products	69.3%	60.1%	69.9%	65.3%	46.8%	81.6%
Product type						
HMO	74.0%***	67.3%***	83.8%***	79.4%***	53.1%***	92.2%***
PPO	35.0%	23.1%	25.4%	16.3%	35.1%	39.8%
POS	85.1%	72.4%	73.5%	72.0%	42.2%	90.2%
Is vendor fully capitated?						
Yes, with no limits	60.3%*	50.3%***	62.3%**	38.2%***	64.5%***	71.2%
Yes, with limits	76.9%	75.2%	76.1%	75.7%	30.1%	76.9%
No	83.7%	65.3%	57.2%	57.6%	76.9%	86.9%
Tax Status						
For-profit, privately held	64.4%	38.2%***	48.4%***	49.4%**	51.4%**	90.2%
For-profit, publicly held	69.5%	65.0%	77.0%	71.2%	39.4%	83.3%
Nonprofit	71.0%	53.6%	55.4%	52.5%	71.3%	71.0%
Is MCO a subsidiary?						
Yes	69.3%	63.7%**	75.5%***	72.5%***	42.2%***	84.1%*
No	69.2%	47.1%	49.7%	39.2%	63.8%	72.7%
Region						
Central	75.8%***	67.2%***	70.5%	68.8%	56.6%**	85.7%**
Northeast	71.1%	58.0%	66.1%	58.5%	50.5%	77.0%
South	60.6%	51.4%	71.1%	64.5%	34.5%	78.8%
West	77.3%	69.4%	68.8%	66.3%	57.2%	84.6%
MCO's enrollment						
Under 10,000	69.8%	62.4%	75.1%	74.4%***	49.1%**	85.2%**
10,000-49,999	67.7%	57.9%	67.4%	62.3%	44.4%	77.0%
Over 50,000	75.8%	61.5%	68.4%	56.5%	64.2%	91.0%

Note: Sample includes all MCO products with specialty contracts (weighted N=3691)

\*\*\* = Chi-square statistic statistically significant at  $p < .01$

\*\* = Chi-square statistic statistically significant at  $p < .05$

\* = Chi-square statistic statistically significant at  $p < .1$

fully at risk for marginal cost; in the sample for this paper, nearly two-thirds of products had such contracts (**Table 1**). At the same time, most of these contracts include caps on profits or losses (74% of full-risk contracts, or 47% of all specialty contracts). Ten percent of the products are in privately held for-profit plans, 70% are in publicly held for-profit plans, and the remaining 20% are in nonprofits. 78% of the products are offered by MCOs that are subsidiaries of a larger entity, e.g. a national or regional chain. The mean market size for this sample is 757,000 residents, and the mean number of HMOs per market is 9.1.

### Descriptive Analysis

The quality standards considered in this survey were all widely used by the responding MCOs (**Table 2**). At least one quality-related standard was used by 82% of the products in

this sample, with patient satisfaction standards being the most commonly used (70% of products) and standards for speed of clinical referrals the least common (47%). It should be noted that **Table 2** includes all plans with specialty contracts for behavioral health, and therefore descriptive results differ somewhat from an earlier publication that excluded those plans which were paid for administrative services only.<sup>6</sup>

Use of standards differs markedly by product type ( $p < .01$  for every standard considered), with PPOs being consistently much less likely than HMOs and POS plans to use each standard. The capitation approach in the contract was not associated with overall use of any quality-related standard, but it was associated with use of each individual standard (at  $p < .10$  or less). Three of the standards appear least common among products using unlimited capitation. Tax status and chain ownership were also significantly associated with use of all standards except quality assurance.

Table 3. Predictors of using various quality-related standards in MCO-MBHO contracts. Logistic regression results

	QA standard		HEDIS		Patient satisfaction		Provider satisfaction		Clin.referral speed		Any quality-related	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
Intercept	3.32	1.82 *	-0.35	1.21	-2.77	1.02 ***	-2.18	0.91 **	0.95	1.14	4.06	2.65
Product type (ref=HMO)												
PPO	-3.20	0.63 ***	-4.46	0.66 ***	-3.62	0.52 ***	-5.26	0.65 ***	0.71	0.40 *	-3.92	0.74 ***
POS	0.05	0.22	0.01	0.25	0.19	0.17	0.26	0.20	-0.00	0.28	0.09	0.09
Full capitation, no limits	-3.24	1.27 **	-2.15	0.51 ***	-1.49	0.60 **	-4.01	0.71 ***	-0.55	0.87	-2.98	1.27 **
Full capitation with limits	-0.06	1.00	-1.73	1.48	0.42	1.03	0.74	1.00	-2.43	1.49	-1.78	1.45
Tax Status (ref=nonprofit)												
For-profit, privately held	1.40	0.98	-0.32	0.85	1.03	0.85	-1.64	0.85 *	0.77	0.83	3.01	0.75 ***
For-profit, publicly held	0.87	1.02	3.81	1.99 *	1.93	1.41	-3.55	1.11 ***	2.82	1.57 *	2.58	1.41 *
Is MCO a subsidiary?	0.60	1.12	0.35	0.74	1.27	0.58 **	3.63	0.83 ***	2.15	1.19 *	2.02	0.81 **
Region (ref=West)												
Central	0.30	1.09	-0.40	0.76	-0.41	0.84	0.66	0.56	-1.80	1.17	1.60	0.47 ***
Northeast	-0.21	0.85	-1.42	0.69 **	-0.46	0.68	-1.09	0.73	-0.03	0.77	0.22	1.06
South	-0.72	0.56	-1.29	0.47 ***	-0.84	0.56	0.25	0.55	-3.40	1.16 ***	-0.61	0.62
MCO's enrollment (ref=over 50,000)												
Under 10,000	-1.15	0.62 *	0.36	0.54	1.04	0.56 *	1.11	0.42 ***	-0.55	0.72	-2.57	0.80 ***
10,000-49,999	-1.22	0.71 *	-0.70	0.51	0.28	0.57	0.04	0.35	-0.97	0.69	-1.98	0.82 **
Number of MCOs serving market	0.02	0.06	0.23	0.10 **	0.20	0.07 ***	0.30	0.05 ***	0.10	0.06	0.11	0.06 *
Market area population (millions)	-0.11	0.15	-0.29	0.18	-0.01	0.20	-0.43	0.13 ***	-0.31	0.17 c	-0.21	0.18
Log likelihood	.3818		.4891		.4470		.5466		.6383		.5010	

Notes: (1) Sample includes all MCO products with specialty contracts and data on risk-sharing and enrollment (weighted N=2765)

(2) regression models also include dummy variables for three largest vendors.

\*\*\* = Chi-square statistic statistically significant at  $p < .01$ ;

\*\* =  $p < .05$ ,

\* =  $p < .1$

## Multivariate Analysis

Logistic regressions were estimated in order to identify the unique contribution of risk and ownership variables, after control for potential confounders. The regressions included separate dummy variables for full capitation with or without limits (caps on profits and losses), so the reference group is 'not capitated or partially capitated' (Table 3). Compared to this reference group, fully capitated products with no limits are less likely to have any standard ( $p < .05$ ) and less likely to use four specific standards: quality assurance and patient satisfaction (both  $p < .05$ ), and HEDIS and provider satisfaction (both  $p < .01$ ). These results contradict the main hypothesis (H1), as the plans transferring full risk were expected to have higher rather than lower use of quality standards. Those fully capitated products that did have limits showed no significant difference from non-capitated products, in their use of standards.

Both types of for-profit MCO were more likely to use at least one quality-related standard. Publicly held for-profits were more likely to use HEDIS or a standard for clinical referral speed. However, both types of for-profits were less likely than nonprofits to use a provider satisfaction standard, the lone case that conforms to our hypothesis (H3) about for-profit plans.

Product type remained a strong predictor of use of quality standards, with PPOs significantly less likely to use each of the standards examined ( $p < .1$  for clinical referral speed;  $p < .01$  for all others). Other MCO characteristics had broadly similar effects to those in the bivariate tests, with chain affiliates and larger MCOs being more likely to use several of the individual standards and to use any standard overall. MCO products in Southern markets were less likely to use a HEDIS standard ( $p < .1$ ) or a standard for clinical referral speed ( $p < .01$ ). Three of the standards were more likely to be used the larger the number of MCOs serving the market, a proxy for competitive pressure.

## Capitated Subsample

Hypotheses 2 and 4, regarding differences among capitated plans, were tested by reestimating the models on the subsample of products that had capitated contracts. (Data not shown) Among capitated products, those that used limits on profits or losses were more likely to use three of the quality standards: quality assurance ( $p < .01$ ), patient satisfaction ( $p < .05$ ) and provider satisfaction ( $p < .01$ ). Use of profit/loss limits was not significantly associated with use of the other standards. These results contradict the hypothesis that quality standards and profit/loss limits would be substitutes (H2).

Among capitated products, both types of for-profit plans were more likely than nonprofits to have at least one quality-related standard ( $p < .01$ ) and specifically a patient satisfaction standard ( $p < .01$  for publicly held,  $p < .05$  for privately held). However, both types of for-profit plan were less likely to have a provider satisfaction standard ( $p < .01$  for publicly held,  $p < .05$  for privately held). This result was similar to the full sample, and provided the only support for our initial hypothesis about capitated for-profits (H4).

## Discussion

The main hypotheses suggested by theories of interfirm contracting were not supported by our empirical analyses, and in several cases were contradicted. We now discuss possible reasons for this, some limitations of our study and future directions.

### Hypotheses about Capitation

This study did not find support for the hypothesis (H1) that MCO products with unlimited capitated contracts for behavioral health would be more likely to include quality standards in their contracts, as a counterweight to potential undertreatment incentives. After multivariate control, the relationship was consistently in the opposite direction. The finding differs from an earlier study of large employers with direct MBHO contracts, who appeared more likely to use administrative and provider-related standards if they transferred full risk.<sup>27</sup> The finding is also contrary to one other study of MCOs' contracting behavior, in relation to physician groups. Gold *et al.*<sup>34</sup> found that MCOs that paid their primary care physicians on a capitated basis were more likely to adjust those physicians' reimbursement for performance on quality measures. It is perhaps not surprising to find different patterns from the general medical sector where performance standards are more developed<sup>35</sup> and paying physicians involves different issues than paying an MBHO.

This unexpected finding could emerge for several reasons. One is that those MCOs that transfer full risk may rely on mechanisms other than quality standards to keep vendors from skimping. One such mechanism is periodic rebidding. For example, even in full-risk contracts with no quality standards, MBHOs must consider the risk of losing the contract at rebid if the MCO is dissatisfied. Similarly, the MBHO may weigh concern for its overall reputation against the static incentives in a single contract. (The reputation effect has usually been interpreted the other way, to explain high cost-reduction effort in ASO contracts rather than high quality in full-risk contracts).<sup>14,18</sup> Anticipating this, the MCO may see less need to write quality standards into the contract.

A second consideration is that MCOs using unlimited full risk contracts may differ from other MCOs in their objectives and constraints, and in particular may attach differing weight to quality as against other objectives like cost reduction. We did control for some characteristics that might relate to differing objectives. For example, large MCOs may have expected greater marketing advantages from accreditation and lower costs of collecting data, which would explain their greater use of several standards. Our multivariate results take account of this by including MCO enrollment as a control variable (along with several other MCO characteristics). However, it remains possible that other, unobserved types of heterogeneity among MCOs could explain the differing use of quality standards.

Third, it is possible that many MCOs do not perceive capitation of subcontractors as creating any problematic incentives, since they themselves are typically paid on a

capitated basis by employers and others. Those MCOs most willing to use full capitation may also be the most sanguine about its effects and therefore least inclined to monitor subcontractor behavior.

A final possibility is that MCOs view these standards as simply measuring subcontractors' capability to manage care, rather than helping to monitor quality. If so, an MCO that has transferred all risk might be less rather than more interested in requiring the standards, since it is now financially insulated from the vendor's success or failure in care management.

The hypothesis that quality standards would substitute for limits (H2) was not supported either, with the two variables not being negatively associated in any of the regression models. This may be because standards and limits genuinely contribute different value or information, and are not perceived as substitutes by MCOs. Alternatively, this finding too may reflect unmeasured heterogeneity among plans, with one group of plans perceiving little value to either risk limits or quality standards.

### *Hypotheses about Ownership*

For-profit plans were expected to make less use of quality standards, but this was only found for one of the standards (provider satisfaction). Estimating the model for capitated plans only did not change this result much. This could imply that for-profits do not have the different objectives implied by their critics (except perhaps less attentiveness to provider concerns). Alternatively, it could mean that differences do exist, but despite them for-profits are being driven to use quality standards by the competitive pressure to gain accreditation. This would be an interesting reversal of the usual convergence hypothesis which proposes that competition drives nonprofit firms to behave like for-profits.<sup>36</sup> Hirth<sup>37</sup> hypothesizes that under certain conditions competition can force for-profit firms to match nonprofits' quality, however in the present case we are only observing convergence in use of standards, not whether actual quality of care is comparable.

### *Type of Product*

It is noteworthy that PPOs are much less likely to use standards than HMOs or POS plans. This suggests that pursuit of accreditation is the strongest factor driving use of quality standards. At the time of the survey, PPOs could not seek NCQA accreditation and therefore had less motivation than the other product types to implement quality standards (as well as less sophisticated data systems). If this is correct, the recent expansion of accreditation to PPOs is likely to be followed by further adoption of quality standards. More generally, perhaps the standards themselves may reveal less about MCO objectives than about those of accrediting agencies (e.g. NCQA), or the purchasers (mostly employers) who use accreditation reports.

### *Limitations*

Our study is subject to several limitations. One is that MCOs

may have been using other quality-related standards that we did not ask about. Another limitation is the lack of more detailed data on the nature of financial risk-sharing, which early testing of our survey instrument indicated would be too sensitive to ask. Similarly, we do not know what types of financial penalties were associated with each standard or whether these were enforced. While we were able to develop more detailed national estimates of contract features than had been previously published, future analyses may benefit from studies that collect even more detailed information.

## **Conclusion**

Although our study has focused on examining which MCOs are not using standards, it is worth remembering that three of the five standards examined here are used by around two-thirds of MCO products, and all are common. The next challenges are both to further expand the use of existing standards and also to develop new performance measures, such as the Experience of Care and Health Outcomes (ECHO) surveys and the Washington Circle Group measures for substance abuse.<sup>38</sup> Pressure for developing testing and using better standards is likely to increase with the further spread of accreditation, including the extension of NCQA accreditation to PPOs and to the MBHOs themselves. Future research should examine the extent to which use of quality standards in contracts is linked to better quality of care.

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