Managed Care in the Doctor's Office: Has the Revolution Stalled?

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Objective: To assess trends in the involvement of US physicians with managed care.

Study Design: Comparison of data from 2 consecutive rounds of a national survey.

Methods: Longitudinal data were obtained from the 1996/1997 (n = 12,528) and the 1998/1999 (n = 12,304) rounds of the Community Tracking Study (CTS) Physician Survey, a large, ongoing nationally representative survey of US physicians involved in patient care. Indicators used to assess involvement with managed care included global measures of managed care participation, risk contracting, exposure to financial incentives, and impact of care management tools. Changes in these measures over the 2 study periods are reported. Analyses were conducted for all physicians, as well as for primary care physicians (PCPs) and specialists separately.

Results: The percentage of practice revenue derived from managed care increased only modestly over the study period (from 42% to 45%). Mean numbers of managed care contracts per physician increased minimally (from 12 to 13). Trends in acceptance of capitation and exposure to financial incentives remained stable over the study period. Among PCPs, employment in staff/group health maintenance organizations declined slightly, whereas gatekeeping function increased modestly. Among care management tools, only treatment guidelines had a significantly increased impact on medical practice, primarily among PCPs (from 46% to 52%; $P < .001$).

Conclusions: Many aspects of managed care leveled off between 1996 and 1999 in ways not accurately reflected by plan enrollment patterns. This "flattening of the curve" trend appears to hold generally across multiple measures. A stalling of the managed care "revolution," if it is sustained, may portend future escalation in healthcare costs.

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After rapid growth in the early 1990s, managed care currently faces an uncertain future. The impetus behind the drive to managed care was control of costs. The spread of managed care slowed growth in healthcare costs considerably between the late 1980s and the mid-1990s,[1] an achievement attributed in part to the success of managed care plans in inducing price competition and forcing costs down.[2,3] A reduction in the diffusion or impact of managed care could therefore lead to a return to inflation in the healthcare sector.

The pace of managed care growth has conventionally been measured through health plan enrollment statistics. For example, from 1988 to 1996, health maintenance organization (HMO) enrollment among privately insured individuals increased from 16% to 31% and enrollment in preferred provider organization (PPO) or point of service (POS) plans increased from 11% to 42%, whereas enrollment in conventional plans dropped from 73% to 27%.[4,5] Medicare and Medicaid beneficiaries have also witnessed a similar shift into managed care. Between 1992 and 1996, the percentages of Medicaid beneficiaries enrolled in managed care increased from 12% to 40% of the total Medicaid population.[6] Although the shift to managed care among Medicare beneficiaries has been slower, by 1998 more than 6 million beneficiaries—nearly 16% of the Medicare population—were enrolled in managed care plans, representing a 156% increase in managed care enrollment since 1992.[7]

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Plan enrollment statistics may be misleading because managed care labels do not adequately capture the nature of the insurance products. Growth in POS plans, expansion of choice of providers, broadening of networks, and loosening of gatekeeping and preauthorization requirements are not fully captured in employer or health plan survey data (from which enrollment statistics are obtained). Although health plan enrollment data show that managed care continued to grow through the late 1990s, this increase occurred mainly through the popularity of looser forms of managed care such as the PPO and POS plans. Between 1996 and 1999, enrollment in conventional indemnity plans declined from 27% to 9% whereas enrollment in HMOs decreased only slightly (from 31% to 28%) and enrollment in POS or PPO plans grew from 42% to 63%.[5] Thus, despite statistics that show growing enrollment in managed care plans, the increasing unpopularity of HMOs and the spread of plans with greater flexibility suggest that growth in managed care may have slowed over the past 5 years.[4]

None of the available health plan enrollment data provide information on the influence of managed care on provider practices. At the heart of managed care are structural incentives and managerial restrictions aimed at altering provider behavior. As the primary target of these measures, physicians provide a vital perspective on the extent and specific impact of managed care. However, as physicians continue to organize into larger practices and intermediary organizations (such as independent practice associations and physician-hospital organizations), it is these physician organizations and not the health plans that define the actual managed care incentives and administrative requirements that affect physicians.[8] These controls and incentive mechanisms affect physicians' clinical decisions and determine trends in costs and quality.

The juxtaposition of trends in plan enrollment and impact of managed care in the doctor's office can offer insight into the dynamics of the marketplace during the latter part of the 1990s. This paper describes trends in both the prevalence and characteristics of managed care as it affects US physicians over a 2-year period (from 1996/1997 to 1998/1999).

··· METHODS ···

Source of Data

The Community Tracking Study (CTS) was a large project conducted by the Robert Wood Johnson Foundation to assess trends in the delivery of medical care, managed care, and effects of changes on people. Our study used data from the 1996/1997 and 1998/1999 CTS Physician Survey,[9] a large, ongoing, representative survey of physicians involved in direct patient care in the continental United States.[10] The sample of physicians was drawn from the American Medical Association and the American Osteopathic Association master files and included active, nonfederal, office- and hospital-based physicians who spent at least 20 hours per week in direct patient care. Residents and fellows were excluded. The numbers of physicians surveyed in 1996/1997 and 1998/1999, respectively, were as follows: all physicians, 12,528 and 12,304; primary care physicians (PCPs), 7210 and 7632; and specialists, 5318 and 4672. The response rates for these interviews were 65% in 1996/1997 and 61% in 1998/1999. Characteristics of respondents and nonrespondents (including specialty, age, years in practice, gender, and practice type) were similar (data available on request).

Conceptual Framework

Recent conceptual work by Landon and colleagues suggests that the most important realm of influence of managed care is influence over physician behavior.[11] The authors (focusing primarily on quality of care but also addressing cost) delineated 4 basic dimensions or domains of influences: financial incentives (base compensation, bonuses, penalties, and withholding), management strategies (practice guidelines, electronic reminders), structural characteristics (physical surroundings, provider staffing mix, scope of available services), and information or normative influences (profiling).[11] In this study we attempted to capture key measures from each of these 4 domains.

In each round of the survey, physicians were asked a series of questions that assessed their involvement with managed care. Four types of managed care measures were obtained:

- Global indicators of the practice's managed care involvement. Respondents were asked about the percentage of their practice revenue derived from managed care, the number of managed care contracts, and the percentage of their patients for whom they served as gatekeeper (only PCPs).
- Involvement of the practice in risk contracting. Risk sharing was measured by the percentage of a physician's practice revenue derived from capitated contracts, whether the practice's largest managed care contract was capitated, and employment in staff/group HMOs.

- Exposure of individual physicians to explicit financial incentives. Physicians were questioned whether factors such as satisfaction surveys, quality measures, and physician profiling (comparison of a physician's practice patterns with that of other physicians) were explicitly considered when their compensation was determined. Full owners of solo practices were excluded, because it was assumed that such physicians do not explicitly subject themselves to structural financial incentives.
- Impact of care management tools and techniques on individual clinical practice. Although care management tools (guidelines, profiling, patient satisfaction surveys, and preventive service reminders) are not exclusive to managed care plans, these instruments are actively promoted by managed care organizations to influence both the cost and quality of care. For example, clinical practice guidelines are key components of disease management programs, of the National Committee for Quality Assurance accreditation assessment, and of several HEDIS® (Health Plan Employer Data and Information Set) measures.

Trends were reported for practice-level and individual-level measures, which comprehensively encompassed the ways in which managed care exerts influence over physicians and which, collectively, have cost implications.

Statistical Analysis

Results were weighted to be representative of the nonfederal, patient care physician population in the continental United States, after accounting for the probability of selection and adjusting for nonresponse. Standard errors used in statistical significance tests were generated using SUDAAN and took into account the complex sample design of the survey (eg, the clustering of physicians among CTS sites and oversampling of PCPs). Because managed care relies more heavily on PCPs and restricts access to specialists, we investigated trends for all physicians, as well as for PCPs and specialists separately.

··· RESULTS ···

Overall Involvement in Managed Care

A large majority (95%) of physicians reported that their practice participated in managed care (**Table 1**). No significant changes were noted over the 2 study periods in the percentage of physicians who reported participation in managed care. The mean percentage of physicians' practice revenue derived from managed care increased modestly over the study period (from 42% in 1996/1997 to 45% in 1998/1999; $P < .001$) and the number of managed care contracts per physician increased only minimally among those physicians who accepted any managed care in their practice (from 12 to 13; $P < .01$). This increase in the number of contracts occurred mostly among specialists. A small increase in gatekeeping function was noted among PCPs.

Risk Sharing

No changes were observed in acceptance of capitation between the 2 study periods (54% in 1996/1997 vs 55% in 1998/1999; P = NS) (**Table 2**). Slightly more than half of physicians (who accepted any managed care) reported acceptance of capitated payment. Among physicians who accepted capitation, a similar percentage reported that their largest managed care contract was capitated (75% in 1996/1997; 74% in 1998/1999; P = NS). For 1996/1997 to 1998/1999, practice revenue that was capitated increased from 16% to 17% for all physicians ($P < .001$) and from 30% to 31% for those accepting capitation ($P < .01$). No significant increase in any risk-sharing measure was observed among specialists, and the shift in these measures was accounted for entirely by changes among PCPs (Table 2). Employment of PCPs in staff/group HMOs was low and declined slightly (from 7% in 1996/1997 to 6% in 1998/1999; $P < .05$), but there was no change among specialists.

Financial Incentives

Physicians' exposure to financial incentives commonly associated with managed care (profiling, patient satisfaction, and quality) remained stable over the study period (**Table 3**). Slightly more than two thirds of physicians reported that they were not subject to any of these individual-level incentives over the study period (69% in 1996/1997; 68% in 1998/1999; P = NS). Use of profiling-based incentives showed a small but statistically significant decrease (from 16% in 1996/1997 to 14% in 1998/1999; $P < .05$) and was attributed to declining use among specialists. Incentives based on patient satisfaction measures increased slightly in prevalence among PCPs over the study periods.

Impact of Care Management Tools

Treatment guidelines had a significantly greater impact on medical practice during the second survey period; the main increase was among PCPs (from 46% in 1996/1997 to 52% in 1998/1999; $P < .001$) (**Table 4**). Other care management tools and

techniques (profiling, patient satisfaction surveys, preventive service reminders) did not significantly change medical practice over the 2 periods of the study.

··· DISCUSSION ···

During the late 1990s, there was a steady increase in enrollment in managed care plans. Moreover, the period was one of considerable organizational tumult, as health plans and hospital systems consolidated, physicians continued to organize into larger practices and align themselves with hospital systems.[12] Despite these changes, our results indicated the period was also characterized by very moderate change in managed care's impact in the doctor's office. There was little additional downstreaming of risk to physician practices, and hardly any change in the use of financial incentives or the effect of care management tools. Did the managed care revolution stall out? How can we reconcile these patterns with the continued growth in managed care enrollments during this period?

One interpretation of our findings is that the stability noted in physician's offices may simply reflect the success of managed care. Our results show substantial involvement of physicians with managed care. According to this interpretation, our survey data reveal little or no evidence of retreat from managed care, even by physicians—a group that has been critical of many aspects of managed care. As the managed care market approaches saturation, there is a diminishing likelihood that managed care strategies will impact physicians' practices significantly. Yet that very saturation would itself represent the chief finding in this view.

Another explanation is that although managed care enrollments grew during the period, the characteristics of these plans changed. Not only was enrollment growth confined to less restrictive forms of managed care, such as PPO and POS plans, but HMOs also eased their restrictions. The much-publicized elimination of most preauthorization requirements in United Healthcare's managed care plans in 1999 reflected a general easing trend throughout the industry, partly in a reaction to consumers' and physicians' complaints about managed care. The dissatisfaction of consumers with healthcare choice restrictions and the concern of physicians over intrusion on their professional autonomy led to an economic and legislative backlash that slowed the pace of managed care.[13,14] At the root of the consumer reaction were the problems that significant numbers of Americans encountered with managed care, as well as fear about the quality of care for severe illness or injury.[15] The backlash has drawn consumers away from more restrictive forms of managed care and has spurred policy makers to advance new laws and regulations such

Table 1. Physician Participation in Managed Care

	All Physicians		PCPs		Specialists	
	'96/'97	'98/'99	'96/'97	'98/'99	'96/'97	'98/'99
All physicians						
Percentage of physicians accepting any managed care	94.3	94.8	93.8	95.8*	94.6	94.2
Physicians accepting any managed care						
Mean percentage of practice revenue from managed care	42.4	45.4*	47.0	50.1*	39.5	42.4*
Mean number of managed care contracts	11.9	12.6†	10.7	10.9	12.7	13.7†
Mean percentage of patients for whom physicians serve as gatekeeper			40.6	43.9*		
Percentage of physicians who serve as gatekeeper for >50% of patients			31.5	36.3*		

Source: CTS Physician Survey
*1998-99 value significantly different from 1996-97 value, $P < .001$.
†1998-99 value significantly different from 1996-97 value, $P < .01$.

Table 2. Prevalence of Risk Sharing

	All Physicians		PCPs		Specialists	
	'96/'97	'98/'99	'96/'97	'98/'99	'96/'97	'98/'99
All physicians						
Percentage of physicians working in staff/group-model HMOs	5.0	4.6	7.4	6.3‡	3.5	3.5
Mean percentage of practice revenue that is capitated	16.1	17.2*	23.2	25.3*	11.6	12.2
Physicians accepting any managed care						
Percentage accepting any capitation	54.2	55.2	71.8	73.4	43.0	43.9
Physicians accepting any capitation						
Mean percentage of practice revenue that is capitated	29.7	31.2†	32.4	34.4*	26.9	27.8
Percentage of physicians reporting that their largest managed care contract is capitated	74.6	73.8	79.4	79.4	69.3	67.8

Source: CTS Physician Survey
*1998-99 value significantly different from 1996-97 value, $P < .001$.
†1998-99 value significantly different from 1996-97 value, $P < .01$.
‡1998-99 value significantly different from 1996-97 value, $P < .05$.

Table 3. Use of Financial Incentives

	All Physicians		PCPs		Specialists	
	'96/'97	'98/'99	'96/'97	'98/'99	'96/'97	'98/'99
Profiling	15.6	14.4*	20.4	20.0	12.4	10.8*
Patient satisfaction	23.2	24.5*	29.4	32.0†	19.1	19.8
Quality measures	18.5	18.9	25.3	26.3	14.0	14.3
Any of the above 3 incentives	31.5	32.1	38.9	41.2*	26.5	26.4
None of the above 3 incentives	68.6	67.9	61.1	58.8*	73.6	73.6

Source: CTS Physician Survey
Population of physicians examined excludes full owners of solo practices.
*1998-99 value significantly different from 1996-97 value, $P < .05$.
†1998-99 value significantly different from 1996-97 value, $P < .01$.

as the Newborns' and Mothers' Health Protection Act and other patient protection bills such as "patients' bill of rights" legislation.

The rate of growth in managed care enrollments (as reported in employer surveys) was greater than the rate of growth in physician practice revenue from managed care reported in this study.[4,5] The contrast between the respective rates of growth of managed care enrollment and the percentage of practice revenue from managed care could, in theory, reflect reduced utilization resulting from more stringent care management. This interpretation, however, is not consistent with our data on use of financial incentives and care management tools or with the evidence of the shift in enrollment to less heavily managed PPO and POS products. Alternatively, the apparent discrepancy could stem from managed care organizations using lower pay-

ments to providers as the primary mechanism to control costs. The hypothesis that health plans achieved cost savings not through greater management of care but through management of costs (by reducing payments to providers) during this period is supported by reports from CTS site visits.[16-18]

We believe that the most plausible interpretation of these physician-perspective findings (which at first appear to contradict the enrollment growth data) is that the changing nature of managed care is fundamental to understanding the apparent discrepancy. In the aggregate, managed care appears on the one hand to be stabilizing or even loosening its management of clinical decisions, while simultaneously exerting strong market pressure to hold down payment rates to providers. The future of managed care remains uncertain. Do the patterns observed during the late 1990s reflect the maturation of the managed care revolution, with near total saturation achieved in many areas, or does it reflect the peak of the managed care movement, to be followed by its weakening and perhaps demise? There is some qualitative evidence to suggest that the most forceful and restrictive facets of managed care—especially risk sharing—have begun to drop away since 1999.[16-18] Other recent evidence also points to notable declines in the degree to which physicians are assuming risk.[19] This line of evidence would be consistent with the hypothesis that changes in the nature of managed care effectively attenuate the impact of the growth in managed care, when viewed from the vantage of physicians.

In the future, managed care may best be characterized by the tools used to influence physician behavior. Our results show variability in the use of specific devices such as care management techniques or financial incentives tied to performance measures. For example, a slight decrease in the use of profiles among specialists and an increase in the use of patient satisfaction measures among PCPs are indicative of managed care organizations' continual tailoring of financial incentives to physicians. However, incentive-based techniques were less prevalent than tools that are independent of incentives. The effect of these care management techniques (eg, profiling, satisfaction surveys) on physicians was rather stable, the exception being treatment guidelines.

In contrast to other care management tools, treatment guidelines are having an increasing impact on the practice of medicine. Guidelines are a by-product of the evidence-based medicine movement and continue to be actively promoted. Managed care organizations may have reached a plateau in attempting to influence physician behavior via financial incentives, capitation, and other direct techniques and may therefore be relying more on methods that directly influence patient care. Although guidelines were initially viewed negatively by many health providers as "cookbook" medicine, evidence-based guidelines are receiving greater acceptance as they are now integrated into disease management, preventive care measures, and accreditation standards. Our study found that more than 50% of PCPs considered guidelines to have a moderate to large effect on their practice, providing evidence that as a management tool, guidelines are widely accepted and influential.

With maximum penetration of managed care and loosening of restrictions, an escalation in healthcare

Table 4. Effect of Care Management Tools on Physician Practice

	All Physicians		PCPs		Specialists	
	'96/'97	'98/'99	'96/'97	'98/'99	'96/'97	'98/'99
Treatment guidelines	45.9	48.7*	45.8	52.1*	46.0	46.6
Practice profiles	33.3	32.2	37.2	35.9	30.8	29.8
Patient satisfaction surveys	58.0	57.8	58.4	57.9	57.8	57.8
Preventive service reminders	38.1	40.0‡	38.9	40.5	33.0	36.8
None of the above 4 tools	9.9	9.4	20.3	18.5†	1.2	2.2†

Source: CTS Physician Survey

Data are presented as the percentage of physicians responding that care management technique had "very large," "large," or "moderate" effect on their practice of medicine.

*1998-99 value significantly different from 1996-97 value, $P < .001$.

†1998-99 value significantly different from 1996-97 value, $P < .01$.

‡1998-99 value significantly different from 1996-97 value, $P < .05$.

costs may be expected. If the impact of managed care in physicians' offices has leveled, increasing healthcare costs will not be offset by continued efficiencies obtained elsewhere in the healthcare system. Increases in costs for physician services will in all likelihood be determined by the extent to which physicians can independently exert market leverage. The flattened trend reported in this study may therefore signify a resumption of escalation in healthcare costs.[20]

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