

Attitudes Toward Managed Care and Cost Containment Among Primary Care Trainees at 3 Training Sites

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Abstract

Objective: To study the attitudes of entering first year (Y1) and graduating third year (Y3) primary care physician trainees from 3 different training program sites (a university hospital system site [UHS], a large staff-model health maintenance organization managed care system site [MCS], and a large public hospital system site [PHS]) toward selected aspects of managed care.

Design: A self-administered questionnaire was used in a cross-sectional study.

Participants and Outcome Measures: Participants were all Y1 and Y3 primary care trainees in internal medicine, pediatrics, and family medicine programs from 3 training program sites. Survey questions dealt with attitudes toward health services, managed care cost containment, and the role of the physician in society.

Results: Of eligible primary care trainees (n = 218), 91% completed the instrument. Trainees at the MCS generally held more positive views of managed care systems than trainees at the UHS or PHS. Internal medicine trainees held more negative attitudes towards managed care systems than trainees in pediatrics or family medicine. UHS and PHS trainees more often thought that managed care systems interfere with the doctor-patient relationship and that these systems are more concerned with economics than in providing quality patient care. Approximately one quarter of the Y1 trainees at all

sites thought that reducing the cost of healthcare is beyond the control of doctors. No Y3 trainee at the PHS believed that reducing costs was beyond the control of doctors. The majority of trainees endorsed routine peer review of clinical decisions to control healthcare costs. Most trainees believed that managed care systems will eventually predominate and that physician independence is being impaired.

Conclusion: The data suggest that attitudes of internal medicine, family medicine, and pediatric trainees toward various aspects of managed care vary not only by their year of training but also by their training environment. Thus, managed care educational programs for trainees should consider both the baseline attitudes of trainees and characteristics of the training site itself.

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Today's trainees in the primary care fields will enter practice during a period of change in our nation's healthcare delivery system. In 1997 the market penetration of health maintenance organizations (HMOs) in California (where 20% of the population was uninsured) reached 47%. It is less well appreciated that the market penetration of HMOs in 1997 for the United States as a whole was over 25%, double the market share in 1990.¹ Thus, changes seen in California are being felt on a national scale. Major trends include lower payments to providers and the need for demonstrated high-quality care, a primary care-based delivery system, ambulatory care instead of hospital-based care, and appro-

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appropriate resource use. These trends and changes in the health insurance marketplace, along with others, are often referred to as managed care. Managed care, an imprecise term because of its various forms, differs considerably from the traditional fee-for-service system. The common result, however, is that all physicians are increasingly being asked to manage resource use. This creates a potential conflict between physicians' traditional role as patient advocates and their obligation to the managed care system, their own financial self-interest, and society.²

Physician training sites differ in the type of practice infrastructure and the overall philosophy toward the practice of medicine. Little is known about how these factors might relate to trainee attitudes toward and perceptions of the changes that are taking place in the healthcare delivery system. After graduation from medical school, students interested in pursuing primary care careers typically complete a 3-year postgraduate (resident) training program. We designed the present study to examine attitudes of such trainees at 3 training program sites.

We hypothesized that there would be differences in trainee attitudes between training sites. Also, based on our previous work,³ we hypothesized that trainees in general would hold negative attitudes toward managed care and managed care systems. We also were interested in exploring differences between trainees at the beginning and end of their training. Specifically, we developed questions relating to trainees' attitudes toward (1) concepts in healthcare delivery, (2) cost containment and test ordering, and (3) perceptions of the role of the physician in a changing healthcare environment. We also explored what characteristics and attitudes are the best predictors of a positive attitude toward managed care.

...METHODS ...

In June 1994 a questionnaire was given to all entering first year (Y1) and all graduating third year (Y3) trainees in primary care (family medicine, internal medicine, and pediatrics) at 3 university-affiliated training programs in Southern California: a university hospital system site (UHS), a large staff-model HMO managed care system site (MCS), and a large public hospital system site (PHS). The UHS system is involved with virtually every permutation of managed care contracting, but the predominant payment mechanism to the hospital and physicians

remains discounted fee for service and fee-for-service Medicare. This is true for the associated primary care activities as well. The MCS site is a closed system with its own training programs. The PHS site is a county hospital system predominantly providing indigent care under fee-for-service mechanisms.

The instrument had previously been pilot-tested on a group of nonparticipating graduating (fourth year) medical students and modified as needed. To enhance the response rate, Y3 trainees who returned a completed survey were given \$10; entering interns completed the instrument as part of their mandatory orientation meeting. Graduating Y3 nonrespondents received 2 messages from the research team reminding them to complete their survey. Y1 nonrespondents received no follow-up because of concern that once they started their training they would already have begun the process of institutional socialization.

For the purposes of this study we defined "managed care," "managed care plans," and "HMOs" according to a published definition of managed care as "a system that integrates the financing and delivery of appropriate medical care by means of the following features: contracts with selected physicians and hospitals that furnish a comprehensive set of healthcare services to enrolled members, usually for a predetermined monthly premium; utilization and quality controls which contracting providers agree to accept; and financial incentives for patients to use the providers and facilities associated with the plan."⁴ In the body of this paper we frequently refer to these as "managed care systems." Fee-for-service practice was defined as the system of care in which the physician's services are reimbursed without the mechanisms referred to above. In the body of this paper we refer to this as the "fee-for-service system." Primary care is defined as family practice, general pediatrics, and general internal medicine.

In this paper we explore questions concerning healthcare delivery, cost containment and test ordering, and the perception of the role of the physician in a changing healthcare system. The survey utilized 4- and 5-point Likert-type questions. When applicable, the choices at each end of the Likert scale (such as "strongly agree" and "somewhat agree") were dichotomized into "agree" and "disagree." Some of the items were reversed so that all the items within a scale measured either a positive or negative attitude.

A scale measuring attitudes toward managed care (questions 1, 2, 3, 6, 7, 9, and 10 in Table 1) was constructed. Observed differences on attitude and knowledge items were compared by gender, training

site, medical specialty, and year of training and were evaluated by chi-square tests.

The reliability of the managed care scale was assessed by using the Cronbach α coefficient on the dichotomized variables. An overall alpha level was

calculated, as well as the alpha level that resulted when each variable was deleted independently from the scale. Items were removed from the scales if the deletion increased the α coefficient. Because all of the items were dichotomous and had similar vari-

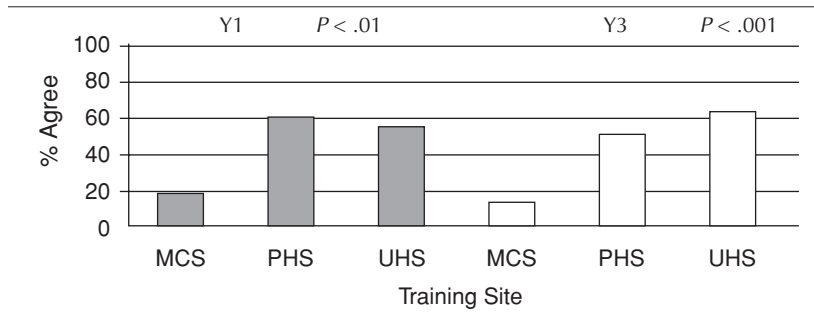
Table 1. Attitudes of Primary Care Trainees at 3 Training Sites Toward Healthcare Delivery

Questions	Year 1				Year 3			
	% Agree			P*	% Agree			P*
	MCS	PHS	UHS		MCS	PHS	UHS	
(1) If I had my choice, I would rather see a doctor in a fee-for-service system than one in a managed care system.	9	61	70	< .001	14	57	67	< .01
(2) HMOs and managed care systems interfere with the doctor-patient relationship.	17	61	57	< .01	14	52	64	< .001
(3) HMOs and managed care systems are more concerned with economics than with providing quality patient care.	14	50	54	< .001	9	57	56	< .01
(4) Physicians in exclusively fee-for-service practice are more concerned with economics than with providing quality patient care.	17	13	7	NS	48	0	14	< .01
(5) HMO and managed care system doctors do fewer tests than doctors in exclusively fee-for-service practice.	26	50	67	< .01	50	67	67	NS
(6) I have less respect for doctors in HMOs and managed care systems than for those in exclusively fee-for-service systems.	0	5	17	< .01	5	10	17	< .01
(7) Doctors who work in HMOs and managed care systems do not have the same dedication to patients as those in exclusively fee-for-service practice.	3	3	13	< .01	0	10	19	< .01
(8) In general, physicians working in HMOs or managed care systems work fewer hours than physicians in exclusively fee-for-service practice.	51	71	70	NS	67	76	64	NS
(9) I would resist practicing medicine as directed by nonphysician managers.	61	67	77	NS	27	39	45	NS
(10) Changes in the healthcare system are impairing physicians' independence.	78	85	87	NS	72	77	84	NS
(11) Physicians in HMOs and managed care systems have fewer hassles than those in exclusively fee-for-service practice.	60	58	52	NS	43	38	40	NS

HMO = health maintenance organization; MCS = staff-model HMO managed care system site; NS = not significant; PHS = public hospital site; UHS = university hospital site.

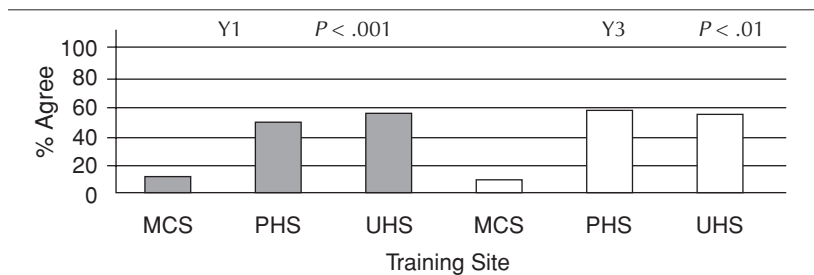
*P values are given across the 3 sites for each year of training.

Figure 1. Health Maintenance Organizations and Managed Care Systems Interfere With the Doctor-Patient Relationship



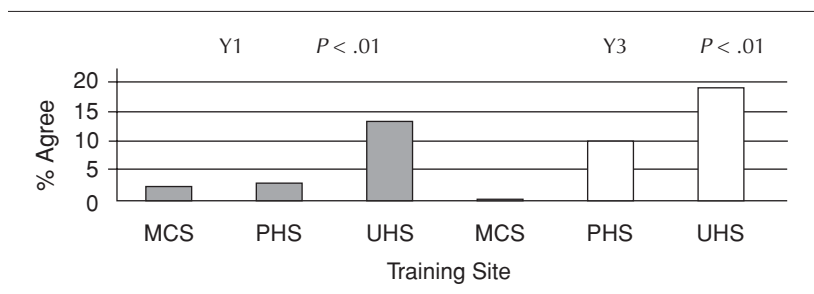
MCS = staff-model health maintenance organization managed care system site; PHS = public hospital site; UHS = university hospital site; Y1 = first year; Y3 = third year.

Figure 2. Health Maintenance Organizations and Managed Care Systems Are More Concerned With Economics Than With Providing Quality Patient Care



MCS = staff-model health maintenance organization managed care system site; PHS = public hospital site; UHS = university hospital site; Y1 = first year; Y3 = third year.

Figure 3. Doctors Who Work in Health Maintenance Organizations and Managed Care Systems Do Not Have the Same Dedication to Patients as Those in Exclusively Fee-for-Service Practice



MCS = staff-model health maintenance organization managed care system site; PHS = public hospital site; UHS = university hospital site; Y1 = first year; Y3 = third year.

ances, coefficients for unstandardized (raw) variables are reported. The scale was dichotomized at its median value to assess the effects of gender, year of residence, specialty, and institution on attitudes towards managed care.

...RESULTS...

For the purpose of this paper we compared the primary care Y1 trainees (n = 127) with primary care Y3 trainees (n = 91). For the 2 years studied, gender (49% female), ethnicity (13% underrepresented minorities), and primary care training program specialty (45% internal medicine) were comparable. Among the 127 Y1 primary care (internal medicine, pediatrics, and family medicine) trainee respondents, 48% were female, and 47% were Caucasian, 38% Asian, 9% Latino, and 2% African American.

Forty-two percent of all Y1 trainees were from the UHS, 30% from the PHS, and 28% from the MCS. Forty-six percent of Y3 trainees were from the UHS, 27% from the PHS, and 27% from the MCS. The response rate at the 3 training sites varied, but the overall response rate was 91%. For Y1 trainees the overall response rate was 93% (UHS = 86%; MCS = 94%; PHS = 98%). The response rate for Y3 trainees was 86% (UHS = 90%; MCS = 96%; PHS = 76%).

When gender, ethnicity, and primary care training program specialty were analyzed by site, no statistical differences were found. Eighty-two percent of Y1 trainees and 78% of Y3 trainees had graduated from California medical schools.

Trainees differed in their current personal health insurance coverage by site, with 100% of

MCS trainees receiving their care in an HMO plan and 100% of the UHS trainees receiving their care in a fee-for-service plan. Trainees at the PHS had a choice of plans. It is worth noting that all trainees were asked how familiar they were with the terms used in this survey (eg, managed care, HMO, gatekeeper, fee for service.). Ninety four percent rated their comfort level with the terms as 4 on a 5-point Likert scale, where 4 was "very comfortable—could give talk on the topic."

Perceptions of and Attitudes Toward Healthcare Delivery

If given free choice, a sizable majority of trainees in both years at the UHS and PHS would rather see a physician in a fee-for-service system than one in an HMO or other managed care system (Table 1). Far fewer MCS site trainees (less than 15% in both years) would make such a choice (question 1).

Trainees tended to strongly support the system in which they participated; these attitudes were already apparent at the beginning of Y1. For example, unlike their counterparts in the MCS, Y1 and Y3 trainees at the UHS and PHS agreed that HMOs and managed care systems interfere with the doctor-patient relationship (question 2; Figure 1).

When asked whether managed care plans and HMOs are more concerned with economics than with providing quality healthcare, over half of Y1 trainees at the UHS and PHS agreed, yet less than 15% of their counterparts at the MCS agreed ($P < .001$) (question 3; Figure 2). When the wording of the question was reversed (are physicians in fee-for-service practice more concerned with economics than with providing high-quality care?), only about 15% of all Y1 trainees agreed with the statement, yet nearly half (48%) of the MCS Y3 trainees agreed with it (question 4). A majority of Y3 trainees at all sites thought HMO and managed care system doctors did fewer tests than doctors in fee-for-service practice, although MCS trainees agreed with that statement less often (question 5).

Trainees in the UHS were more likely to have less respect for HMO and managed care doctors than their colleagues at the PHS or MCS (question 6). Similarly, UHS-based Y1 trainees agreed most often (13%) with the statement that doctors who work in managed care plans or HMOs do not have the same dedication to patients as doctors working in the fee-for-service system. Very few PHS and MCS trainees agreed with this statement (question 7; Figure 3). Approximately 70% of Y1 trainees at both the UHS and the PHS and 51% of their MCS counterparts

thought that physicians at HMOs and managed care systems worked fewer hours than doctors in the fee-for-service system. Y3 trainees were more homogeneous in their opinion about the working hours of physicians (question 8). At least 50% of Y1 trainees at all sites and approximately 40% of Y3 trainees believed that physicians at HMOs and managed care systems have fewer hassles than those in private practice (question 11).

We created a 7-item scale (coefficient = 0.72) to assess attitudes toward managed care (questions 1, 2, 3, 6, 7, 9, and 10). Compared with the MCS trainees, trainees in the UHS and PHS were less likely to hold positive attitudes towards managed care (odds ratio [OR] = 0.07, 95% confidence interval [CI] = 0.02, 0.23). Compared with trainees in internal medicine, trainees in pediatrics or family medicine held more positive attitudes toward managed care (OR = 6.10, 95% CI = 2.6, 14.4).

Attitudes Toward Cost Containment

Approximately one quarter of Y1 trainees (27%) thought that the cost of a test should have absolutely no bearing on whether or not a test is obtained, and there was no significant difference by hospital site. However, substantially more Y3 trainees from the MCS agreed with this statement (question 12; Table 2). Approximately one quarter of Y1 trainees at all 3 sites thought that if there was even a remote chance that a test would provide medically useful information, it should be performed. Again, there was a difference between the Y3 trainees at the MCS and counterparts elsewhere (question 13). Y3 MCS trainees also were far more likely than trainees at other sites to order a test at a patient's request, as long as the test did not harm the patient (question 14).

Most trainees seemed to think that cost control was less important than free choice regarding health plans (question 15). But most thought that cost control was achievable. Only a minority of trainees agreed with the statement that controlling cost is beyond the control of physicians, with PHS trainees least likely to agree (question 16). Nearly three quarters (74%) of Y3 trainees endorsed routine peer review of clinical decisions to control healthcare costs, as opposed to just over half (55%) of Y1 trainees (question 17).

... DISCUSSION ...

Although training programs in primary care strive to provide trainees with a generally applicable set of

skills and knowledge, major differences exist between programs, in part because of differences in patient populations, geographical variations, predominant type of healthcare financing, local competition, and institutional partners. As demonstrated in this study, trainee attitudes toward managed care vary not only by year of training, but also by the site of that training. Specifically, trainees in a managed care system environment hold more positive attitudes toward managed care than those training at either a university or public hospital. Further, these attitudes do not seem to result from participation in the training program itself, because they were present at the start of internship and for the most part there was little difference between Y1 and graduating Y3 trainees.

Prior work suggests that students at the start of medical school already hold strongly negative atti-

tudes toward managed care.³ Our data suggest either that students who hold strongly positive attitudes toward managed care are attracted to managed care practice settings, or that trainees in managed care system training programs avoid cognitive dissonance by adopting positive attitudes. These results cannot be explained by differences in the demographic features, because gender, ethnicity, and training specialty within primary care were comparable across the sites.

Some attitudes suggest potential conflicts among professional colleagues and within organizations. For example, a sizable minority of primary care trainees do not believe that physicians have an important role to play in reducing the cost of healthcare. A related but unexpected finding was that Y3 trainees in the MCS training program (compared

Table 2. Attitudes of Primary Care Trainees at 3 Training Sites Toward Cost Containment

Questions	Year 1				Year 3			
	% Agree			P*	% Agree			P*
	MCS	PHS	UHS		MCS	PHS	UHS	
(12) In general, the cost of a test should have absolutely no bearing on whether or not it is obtained.	29	26	26	NS	52	10	36	NS
(13) If there is even a remote chance that a test will provide medically useful information, it should be performed.	29	26	26	NS	52	24	25	< .05
(14) If a patient demands a particular medical test, and the test will not physically harm the patient, the patient should have the right to obtain the test.	23	18	39	< .05	43	14	8	< .05
(15) Controlling the cost of care is more important than letting people and doctors have a free choice over their healthcare plans.	17	16	10	NS	10	14	25	NS
(16) Reducing the cost of healthcare is beyond the control of doctors.	23	27	16	NS	31	0	37	NS
(17) Regular peer review of routine clinical decisions is a reasonable way to control costs.	43	55	57	NS	86	62	75	NS

MCS = staff-model health maintenance organization managed care system site; NS = not significant; PHS = public hospital site; UHS = university hospital site.

*P values are given across the 3 sites for each year of training.

with their peers at the UHS and PHS) had the least appreciation for issues relating to cost containment. This attitude is seen in their responses to questions 12, 13, and 14. The explanation for this finding is not clear. It may be that the MCS training site studied has tried to diminish the perception that such systems limit access to diagnostic testing and high-tech procedures and therefore downplayed cost consciousness in their formal and informal education. Another possibility is that the MCS studied in fact may not limit access to such services. An alternative explanation is that given the current emphasis on cost containment in Southern California, trainees at the UHS and PHS systems studied may have observed cost-containment strategies firsthand or heard about such strategies from clinical mentors.

Trainees endorsed regular peer review of their clinical decisions as an appropriate measure to control healthcare costs regardless of site of training. This should give solace to many managed care organizations because a majority of healthcare costs are under physicians' direct control, and resource use and quality control strategies emphasize participation of all providers.

The negative attitudes appeared to be directed toward the idea of managed care or managed care systems rather than the physicians within those systems. Only a small minority of trainees had less respect for physicians working in managed care systems (compared with fee-for-service practice) or thought that these physicians had less dedication to patients. Even so, these attitudes were more common in the UHS trainees.

Some limitations of this study deserve discussion. First, it was cross-sectional (as opposed to prospective), and it is unclear whether the Y1 trainees will hold the same attitudes when they graduate as the current Y3 graduating group held. Therefore, it is unclear whether the observed differences between years are due to a different cohort (Y1 vs Y3) or to a training effect. We plan to study this issue further in a longitudinal study.

As noted earlier, some differences between Y1 and Y3 attitudes suggest an effect that is more easily explained by training site than by year of training. Although the response rate was excellent, allowing us to have confidence that we accurately captured opinions, the study was limited to only 3 training sites in California. It is uncertain to what extent the data are generalizable to other geographic areas or other training sites. Certainly the issues studied will be affected by the market penetration of the various

forms of managed care in a particular part of the country and the degree to which training sites participate in those plans. Also, many areas of the country do not have large staff-model managed care systems. However, California is one of the leaders in the nation in terms of the population enrolled in managed care systems, and it is possible that the attitudes these trainees hold toward managed care systems and variations in these attitudes by training site may reflect trainees' attitudes in other geographic locations in the future. Variation in attitudes by site has not been previously studied. Although the precise differences seen in our study may or may not be generalizable, it is possible that differences do exist between training sites with different experiences of managed care. A recent report suggested that attitudes toward managed care are generally negative in the healthcare training establishment on a national level (this report did not attempt to categorize responses by any characteristic of the training site, as we have done).⁵

Finally, we recognize that the term "managed care" is inherently imprecise and that the actual payment mechanisms to providers include every conceivable scheme. However, we used a published definition that we believe does adequately distinguish managed care from the organizational structure of care traditionally recognized as fee for service.⁴

Our findings are consistent with a recent report of a national survey of 1390 Y3 internal medicine trainees.⁶ Attitudes toward managed care systems were negative. Only 31% would be "satisfied" working in an HMO and using its guidelines. Another finding suggested that graduating trainees would need to reevaluate their attitudes to work within a managed care system. Fully 84% believed that their practice of medicine should be based on their own personal judgments, regardless of costs or guidelines.

Our findings have important implications for medical education and also for physician recruiters. This study documents trainees' negative attitudes toward certain aspects of managed care, especially those of trainees unassociated with a managed care system. In particular, it is the trainees' personal opinions of managed care that are the most negative. This may be because trainees in their workaday experience may hear only about the potential adverse impact and fundamental changes that have occurred in the name of managed care⁷⁻¹⁰ and not about the benefits to patients when careful attention to resource use and outcomes has served the patients' best interest.¹¹ Physician recruiters may

find it useful to specifically address trainee attitudes toward managed care and how their own practice or organization functions, so that there are no misunderstandings regarding expectations.

This study highlights the need to consider how trainee attitudes may impact new strategies for communicating about the broad issues of resource use, outcomes management, and quality improvement, as well as how these attitudes influence medical ethics and the doctor-patient relationship.¹² These issues all are affected to some degree by managed care. Trainees who have been educated regarding these issues will likely find themselves more at ease with, better able to function in, and more desirable as providers in the healthcare system that seems to be evolving, with its emphasis on integration, continuous improvement, and attention to resource use.

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