

*It is often difficult in complex organizational systems for managers to attribute accurately changes in organizational performance to changes in management strategy. In this case study of the Kaiser Permanente Northern California Health Care System, managers attributed improvement in patient enrollment to strategic action taken earlier to improve patient satisfaction. Empirical data demonstrate that changes in patient enrollment were actually due to changes in the market for medical care external to Kaiser and out of the control of Kaiser managers. Subsequent problems in the Kaiser system may have been worsened by this earlier misattribution. It is important for health care managers to appreciate the difficulty in linking strategic action to changes in organizational performance.*

## **STRATEGIC MANAGEMENT OR ENVIRONMENTAL CHANGE** *Which Determines Success in Health Care Organizations?*

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**The United States** is undergoing a major transformation in its system of health care financing and delivery. The evolving system of managed competition relies on the ability of managers of health care organizations to restrain costs and improve efficiency (Enthoven, 1993). The theory behind managed competition assumes that health care managers will be able to perceive and respond to market forces in ways that will assure efficient organizational forms and institutions. This study raises questions concerning the theoretical basis of this assumption. Using a specific case study of one of the largest health care organizations in the United States, it examines the ability of managers to perceive factors both within the organization and external to it and to respond to those factors in ways that improve organizational performance.

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374



The subject of this study is the Kaiser Permanente medical care program in Northern California (KP). After incurring a succession of losses in their patient enrollment, KP is undergoing a series of fundamental changes in an effort to remain viable and competitive. KP management appears to have learned some difficult lessons about what it takes to survive in today's rapidly changing health care environment.

The question this study raises is why KP did not learn these lessons more than 10 years ago when, for the first time in their history, they confronted similar membership losses and competitive forces. Through a combination of qualitative reports and quantitative analyses, this study looks at KP membership and financial data and at the strategic decisions KP management made for the period from 1985 to 1989. It concludes that KP managers made a fundamental attribution error at that time, incorrectly attributing the rapid turnaround they experienced in 1988 to 1989 to the success of their own actions, when it appears more likely that market forces external to their control were responsible for the change. Having assumed (incorrectly) that they had fixed their internal problems with patient access and satisfaction, they were unprepared for the competitive shock waves that engulfed them in the 1990s.

### **STRATEGIC MANAGEMENT OR ENVIRONMENTAL CHANGE: WHICH AFFECTS SUCCESS?**

A debate in sociological theories of organizations revolves around questions of strategic management (Astley & Van de Ven, 1983; Pfeffer, 1985; Scott, 1987). To what extent is the success or failure of an organization the result of conscious actions taken by organizational managers? Alternatively, to what extent is that success or failure determined by factors in the external business and social environment of the organization over which managers have little control? This debate has largely to do with differing views of management's ability to understand the limits of their own effectiveness and actions.

There are different views on how we should view the managers of a large organization. One view suggests that a skilled manager can perceive the changing forces in the organization's environment and then adapt the organization so as to react to them (Kimberly & Zajac, 1985; Pfeffer & Salancik, 1987; Shortell & Zajac, 1990). A conflicting view suggests that a manager is confronted by his or her own bounded rationality (March & Olsen, 1976) and the structural inertia of organizations (Hannan &

Freeman, 1984) in ways that make meaningful adaptation to environmental change difficult. From this perspective, organizational success or failure is determined largely by changes in the social and market environment external to the organization and beyond the reach of managers.

Given the rapidly expanding role of market competition in the health care sector in the United States, these questions seem especially pertinent. The success of managed competition in achieving its goals of increasing access to care while also controlling costs depends on the ability of health care managers to perceive accurately the causes of organizational inefficiency and to institute changes that will directly address these problems. If managers are limited in their ability to improve organizational performance, as some of the above theorists argue, the potential success of health care reforms based on managed competition will be limited.

### HISTORICAL BACKGROUND OF THE KP PROGRAM

The KP program originated in the 1930s providing care for construction workers on large, remote projects. It has become the nation's largest nonprofit HMO, providing care to more than 8 million people in 19 states and the District of Columbia. The Northern California region is the largest of the regions, with over 2.6 million members, 15 hospitals, and more than 3,700 physicians.

The KP program had some very hard times in the early 1990s. Their success historically has rested on continuous growth in patient enrollment. However, instead of increasing, enrollment fell between 1991 and 1993 and was nearly flat for a considerable period after that (Kertesz, 1995a).

On top of these membership losses, KP, along with other managed care plans, had to face the declining reimbursement rates of the intensely competitive California health care market. Fueled by the increased purchasing power of groups such as the Pacific Business Group on Health and the California Public Employees Retirement System (CalPERS), the capitation rates that health plans received were dropping by as much as 3% to 5% per year.

KP thus had to deal with the one-two punch of declining patient enrollment and declining capitation rates from payers. The resulting workload increases and financial constraints created substantial stress and dissatisfaction within KP's physician ranks (Kertesz, 1996). KP's financial difficulties led to a downgrading of their unsecured debt rating (Kertesz, 1995b).

More recently, it appears that KP's situation has stabilized somewhat. In the words of one analyst, "the giant is awakening . . . Kaiser is making improvements—particularly in product offerings and service to customers" (Kertesz, 1995a, p. 34). Internal cost reductions have allowed KP to regain its competitive rate position; patient enrollment increased substantially in 1996 and 1997.

If one asks why they had problems holding on to patients in the face of increasing price competition, a number of physicians give an unambiguous answer: patient satisfaction with the care they receive. KP traditionally has had problems with patient access, waiting times until available appointments, and phone response time. In the words of one physician,

"The stance of the medical group historically was that it didn't matter whether patients thought they were getting good service as long as they were getting good care. That attitude changed dramatically when we realized patients made choices about their health plan based on how well we served them" (Azevedo, 1995, p. 88).

Access to physicians and the ability to establish an ongoing relationship with a physician were perennial problems. What has been characterized as corporate arrogance (Azevedo, 1995) on the part of KP managers led to a failure to deal with these problems. When KP was no longer the least expensive health plan alternative, as became the case in the 1990s following a series of double-digit annual rate increases, members left KP for the competition.

However, this was not the first time KP faced these problems. In 1985, after 30 years of uninterrupted growth in patient membership, the KP Northern California Region began losing members for the first time ever. The nationwide expansion of HMOs that followed congressional enactment of the Health Maintenance Organization Act of 1973 included the creation of some very successful competing HMOs in Northern California. These new HMOs were growing rapidly at the same time that KP experienced its first membership loss. These HMOs were quick to focus advertising campaigns on KP's Achilles' heel, the public perception of the impersonal nature of the care Kaiser provided. Historically a two-dimensional balancing between costs and quality without major consideration of patient satisfaction, management strategy became a triangular coordination of cost, quality, and service to members. KP managers initiated a series of program changes, described below, in an attempt to improve service to members. Within a few years, patient enrollment turned around dramatically, and Northern California KP began to grow so

rapidly it had to constrain new enrollment until it could hire more physicians. In the eyes of KP management, their program to improve service to patients had been a spectacular success.

But was it? Was patient satisfaction actually improved, and was the turnaround in enrollment due to increased patient satisfaction? These questions are addressed below.

### DATA SOURCES

In examining KP management's ability to establish an accurate perception of cause-effect relationships in organizational performance, there are two basic research questions to address:

1. What specific steps did KP management take to improve patient enrollment?
2. Is there evidence that the results of these interventions were associated with the improved enrollment that KP eventually experienced?

Each of these questions will be addressed using a different method of analysis. The first analysis will use qualitative reports of physician staff meetings, information contained in internal newsletters, and an interview with a member of the Board of Directors of the Northern California Permanente Medical Group (PMG), the physician wing of the KP program. During the period covered by this study, the author was employed as a physician by PMG and was thus included in the regular staff meetings and internal communications pertaining to the issues under discussion. (The author currently has no financial or employment relationship with the Kaiser Permanente program.)

The second question will be addressed using time series multivariate analysis of quarterly financial and enrollment data from 1985 to 1989, the period of the initial KP response to declining membership. These data were provided by the KP program and are used with permission.

In addition to factors within KP, this analysis includes data pertaining to two important factors in the broader market environment within which KP operates. The first is general patterns of employment with the local economy. Close to 90% of KP patient enrollment typically comes from employee groups. In Northern California, KP typically would enroll at least 30% of new workers. The more people are employed, the more members can be expected. After the severe recession of the early 1980s, the

mid-1980s saw extraordinary expansion of the national economy, with concomitant growth in the number of people working. This employment expansion was independent of any action on the part of KP, but could well be expected to influence growth in enrollment. Data on changes in employment by county published by the state of California were used in this analysis. Quarterly data are reported to coincide with the quarterly patient data compiled by KP.

The second factor is the comparative price of other health plans competing for enrollment with KP. Competing health plans in Northern California were able in the mid-1980s to narrow the gap between their rates and those of KP. Marketing staff within KP closely tracked price comparisons among KP and its health plan competitors. These data, measured as the percentage difference in monthly patient rates between KP and its different types of competitors, were provided by KP staff for this analysis.

## RESULTS

Northern California KP's first ever decline in patient enrollment from its core area took place in 1985. (Growth in the two newly established areas of Stockton and Fresno is excluded from this analysis, as those areas were in an expansion phase atypical of the established medical centers.) Management was quick to respond to this perceived threat, taking four principal steps. The first was a series of internal cost cutting and efficiency steps in an effort to maintain a price advantage over competing HMOs. The second step was to initiate a regionwide service improvement program in an effort to improve patient satisfaction with care. The third, for the first time in KP history, was to launch a media ad campaign. The final step was to initiate a series of staff meetings and internal newsletters intended to convey to physicians the importance of being more sensitive to patients' needs so as to increase patient satisfaction. Each of these steps is discussed below.

These efforts took place over the period from 1985 to 1986. As illustrated in Figure 1, membership growth was sluggish in 1985 and 1986, with declines in membership in the third quarter of both years. Around 1987, membership growth increased markedly. Growth in the first quarter of 1987 was 5,586 members. In the first quarter of 1988, it was 30,234 members, and it was 42,815 members in the first quarter of 1989. By 1989, the threat of the loss of health plan members to the competition had clearly

subsided. The Northern California region was growing so quickly it had difficulty hiring additional doctors fast enough.

*Price comparisons.* KP had historically been the lowest price health plan alternative for comparable levels of coverage. Prior to the 1980s, the principal competitors were traditional indemnity carriers that relied on fee-for-service payment methods with little in the way of use or cost controls. During the 1980s, a number of new HMOs began to compete with KP for patient enrollment, offering monthly rates that were often substantially less than the indemnity plans. KP management viewed competition from these new HMOs as the main reason for the enrollment decline they experienced. Figure 2 shows KP's rate advantage over its indemnity and HMO competitors. It can be seen that the advantage over HMO competitors was fairly stable during the time frame of this study, whereas the advantage over competing indemnity plans widened substantially. It was at about this time, between 1986 and 1987, that a dramatic shift was seen in national health care economics, with a resurgence of inflation in health care costs. Hardest hit by the increase in costs were the indemnity insurance carriers. Cost overruns from a previous year often had to be added to the already large prospective rate increases, leading to unprecedented escalation in indemnity insurance rates. Similar, although less dramatic, increases were seen in the rates of KP and its HMO competitors.

*Service improvement.* KP initiated several structural reforms intended to improve service. Telephone accessibility for patients had always been a problem, with patients seeking a medical appointment typically kept on hold for 30 minutes or more. Management invested heavily in new telephone equipment and personnel and began to track more closely the time patients were kept on hold. As a result of the new program, management reported during staff meetings that 90% of patient calls were being answered within 3 minutes.

Management also initiated programs to improve accessibility for high-visibility types of patient appointments. Patients often had to wait several months for preventive health services such as Pap smears and mammograms. Management reported that these services had become available within a few weeks.

It had always been difficult for KP patients to establish an ongoing relationship with one physician. Responding to the public perception of impersonal care, management began a campaign to establish personal physicians for all members who wanted one. (No data were kept as to the



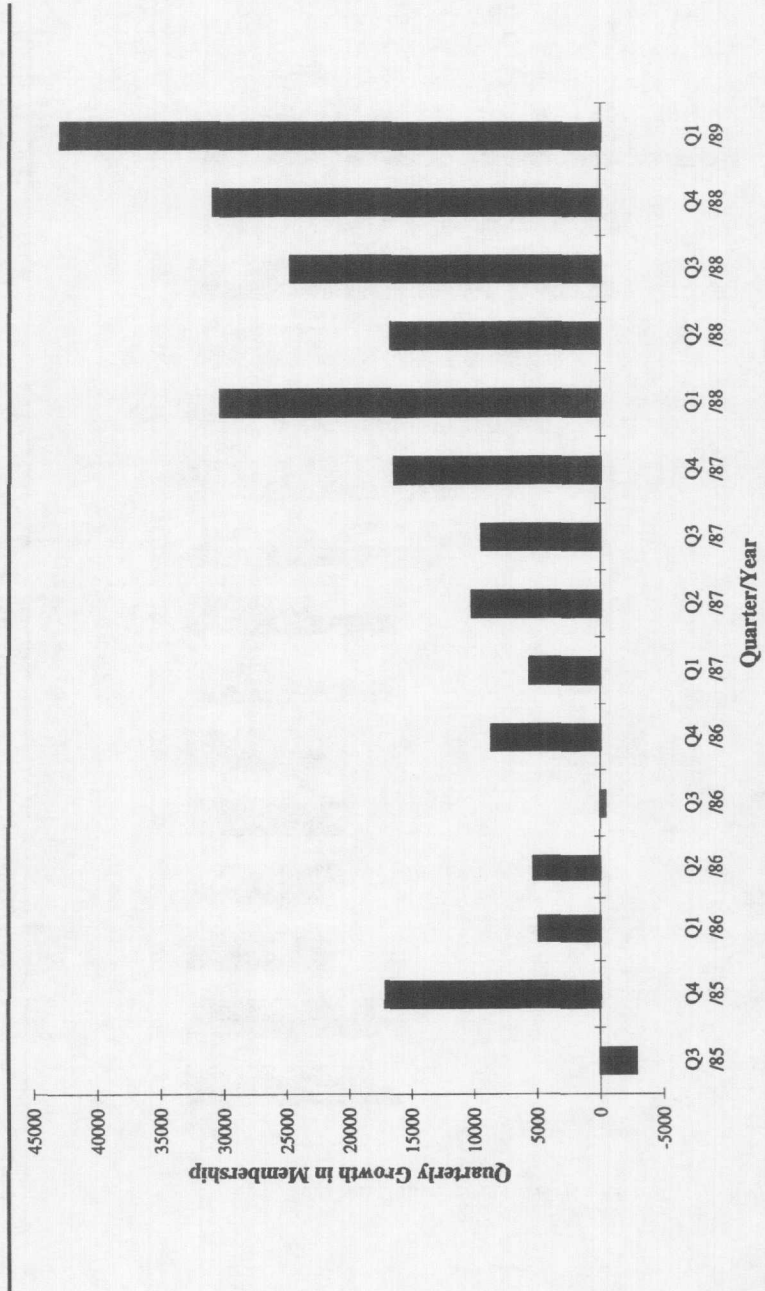


Figure 1: Growth in KPMCP Membership From Third Quarter 1985 to First Quarter 1989

SOURCE: Northern California KPMCP.





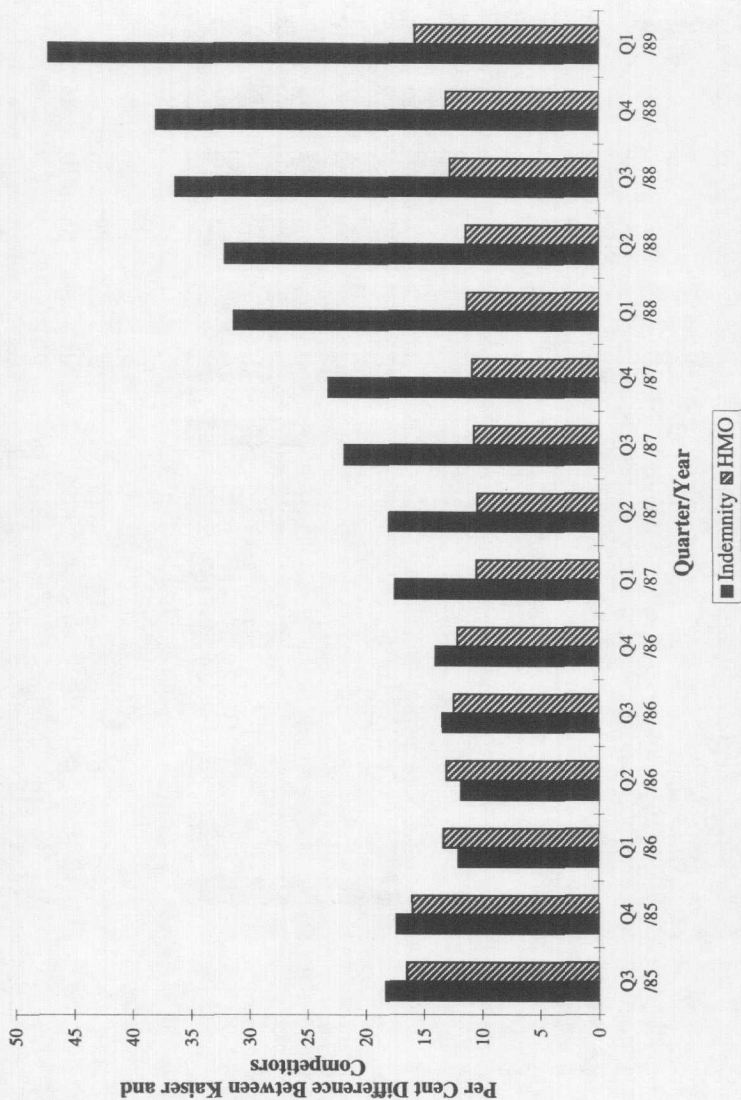


Figure 2: KPMCP Rate Advantage (percentage) Over Indemnity and HMO Competitors From Third Quarter 1985 to First Quarter 1989  
 SOURCE: Northern California KPMCP.

physicians for all members who wanted one. (No data were kept as to the number of patients who actually were able to establish personal physicians as a result of this program.)

*Media advertisement.* A large, nationally respected advertising firm developed and initiated an ad campaign. Begun in the summer of 1986, the ads emphasized the high quality and personalized nature of the care provided by KP physicians. Under the "good people—good medicine" slogan, a major effort was instituted to alter the public's impression of the care available through KP.

*Staff meetings and communications.* Through a series of special meetings and newsletters, management told physicians that continued success of the program was threatened by competition from other HMOs. It was in these meetings that data on patient enrollment and satisfaction and two messages were conveyed.

1. To assure organizational survival, physicians would have to find ways to provide better service so as to improve patient satisfaction. Failure to do so would threaten KP's long-term survival.
2. After the rebound in patient enrollment seen after 1987, physicians (and managers) were congratulated on the success of their efforts.

It was in these meetings and newsletters that the clear message was conveyed to physicians: The cause of the decline in enrollment had been poor patient satisfaction, and the cause of the rebound had been the efforts to improve that satisfaction. Physicians were congratulated for a job well done. This conclusion that the rebound in growth was due to management's efforts to improve satisfaction was confirmed during the interview with the member of the Board of Directors. Something had changed for KP. From a period of disturbing membership loss, the pattern of membership growth was dramatically reversed over a 2-year period. It was natural for KP managers to point to the efforts at improving service to members as the source of this reversal. There was objective evidence that important internal variables such as telephone and appointment waits were reduced. Others could point to the advertising campaign as another obvious reason for the renewed success.

To test these conclusions, quarterly data were gathered for the following items for the period from the third quarter of 1985 to the first quarter of 1989 (data items 1 through 4 are from unpublished data provided by Kaiser Foundation Health Plan, Oakland, California):

1. change from the previous quarter in the KP Northern California Region patient enrollment, excluding the expansion areas of Stockton and Fresno;
2. the average difference between the rates for indemnity health plan competitors in Northern California and KP rates, as a percentage of KP rates, weighted by the group size for each carrier (indemnity plans often have fewer benefits than do HMOs, so the real price difference may be even greater);
3. the average difference between the rates for HMO competitors and the KP Northern California Region, as a percentage of KP rates, weighted by market share;
4. the average level of patient satisfaction for KP Northern California Region members for the quarter, measured as the percentage of respondents answering *very satisfied* when asked about their overall satisfaction with their recent visit to see a KP physician (patients were randomly selected for survey by health plan staff from those health plan members obtaining physician office care during the quarter, with answers on a 4-point Likert-type scale ranging from *very satisfied* to *very dissatisfied*); and
5. the change from the previous quarter (in thousands) in the number of people employed in the KP Northern California Region core area for the quarter, as reported by the State Employment Development Department. Counties included were Sacramento, Santa Clara, San Mateo, Alameda, Contra Costa, San Francisco, and Marin. (These data are reported monthly. The figure for employment for the second month of the quarter is used as representative of that quarter. In the fourth quarter of 1988, the figure for October is used because the November figure was unavailable.)

These data were analyzed with ordinary least squares regression using SPSS<sup>®</sup>, with the quarterly change in patient enrollment as the dependent variable. The KP rate advantage over indemnity carriers and HMO competitors were entered as separate independent variables, as were average member satisfaction and change in overall regional employment. The effects of the KP advertising campaign were entered as a dummy variable, coded 1 for those quarters in which ads were aired. There were no advertisements for the health plan in the first 5 quarters of the study period, with regular advertising in the subsequent 10 quarters. An additional dummy variable was entered, coded 1 for the first quarter of the year. KP staff have usually assumed that, as many employers have their open enrollment period for choice of health plan in the first quarter of the year, membership growth for the year will take place disproportionately in the first quarter.

The means, standard deviations, and intercorrelations for these variables are included in Table 1.

The results of the ordinary least squares regression analysis for the model described are included in column 1 of Table 2.

TABLE 1  
Means, Standard Deviations, and Correlations of Variables

Variable	M	SD	First Quarter	Indemnity Rate Difference	HMO Rate Difference	Growth in Enrollment	Patient Satisfaction	New Employment	Advertising
First quarter (D)	.27	.46	1.00						
Indemnity rate difference	23.49	10.91	.200	1.00					
HMO rate difference	12.68	2.04	.016	.143	1.00				
Growth in enrollment	14,615	12,797	.305	.902	.129	1.00			
Patient satisfaction	51.55	1.40	-.480	-.126	-.525	-.332	1.00		
New employment (x 1,000)	20.88	38.87	-.473	.023	-.324	-.085	.246	1.00	
Advertising (D)	.667	.488	.107	.598	-.572	.563	.373	.075	1.00

NOTE: (D) indicates a dummy variable.

The adjusted *R*-squared of .83 indicates that 83% of the variation in health plan membership can be explained by the factors included in the independent variables in the regression. The *F* value of 12.4 shows that these results are highly significant ( $p < .001$ ).

When we examine the individual regression coefficients, we see an interesting picture. There appears to be no significant relationship between the change in overall employment and KP growth, nor does there seem to be a significant effect for the first quarter of the year on growth in that quarter. In addition, no significant effect on membership growth can be shown for the KP advertising campaign. There is a significant effect for the rate difference between the KP and the indemnity competitors ( $p < .01$ ). There is no significant effect for the KP rate advantage over HMOs.

The effect of patient satisfaction as demonstrated by this model is somewhat surprising. There is a significant relationship between KP growth and patient satisfaction during that quarter ( $p < .05$ ). However, the negative sign of the regression coefficient indicates that this was an inverse relationship. That is, as patient satisfaction decreased, membership increased. It must be remembered that ordinary least squares test relationships and not causation. Causation is hypothesized in the model tested and must be separately confirmed. In this case, the causal link between patient satisfaction and membership growth anticipated before the analysis is not confirmed, and, in fact, the relation is in the opposite direction.

It makes no sense to believe that membership growth is enhanced by patient dissatisfaction. Dissatisfied patients tend to leave health plans, not join them (Ware & Davies, 1983). However, it may well be that the time sense of the link is reversed. This analysis may indicate that the growth experienced by KP in the period studied led to a decrease in patient satisfaction. Either the influx of new members has negatively affected the satisfaction with care for all KP members or new members tend to be less satisfied with their care than are previously established ones. To explore this idea further, the regression was run again, this time using patient satisfaction during the previous quarter as the predictor of membership growth during the current quarter. This model allows for a lag between patients' perception of increased satisfaction with their care, the conveying of this satisfaction to their friends and colleagues who are not KP members, and their subsequent decision to join the health plan. By establishing the temporal relationship in this way, we can more easily address questions of causation. The results of this modified model are presented in column 2 of Table 2. (As no data are available for the first quarter of the analysis on the

**TABLE 2**  
**Results of Least Squares Regressions Using Quarterly**  
**Health Plan Growth as the Dependent Variable**

Variable	Column 1		Column 2		Column 3	
	b	p	b	p	b	p
First quarter (D)	-2,909	.438	1,311	.672		
Indemnity rate difference	877	.015	916	.005	1,059	< .001
HMO rate difference	-515	.752	1,424	.314		
Patient satisfaction	-3,601	.045				
Patient satisfaction (lagged)			1,649	.150		
New employment ( $\times 1,000$ )	-32	.550	-31	.453		
Advertising (D)	6,130	.438	-432	.950		
Constant	183,520	.063	-108,187	.066	-10,255	.014
Adjusted R-squared	.830		.895		.800	
F value ( <i>p</i> value)	12.42 ( <i>p</i> < .001)		19.41 ( <i>p</i> < .001)		56.92 ( <i>p</i> < .0001)	

NOTE: (D) indicates a dummy variable. Empty cells indicate that the variable was not included in the model.

previous quarter's patient satisfaction, the second regression is run on 14 quarters of data rather than on the original 15.)

By using satisfaction in the previous quarter as the independent variable determining growth, we obtain a better fit. The amount of variation explained by the new model has increased substantially, with the adjusted *R*-squared going from .83 to .89 for the same number of independent variables. The *F* value for the model went from 12.4 to 19.4. In this analysis, satisfaction level is positively related to growth in the following quarter, although this relationship is only borderline in significance ( $p = .15$ ).

(To test whether the difference between the first and second models was due to the omission of the first quarter's data, the analysis for the first model was run again, omitting the first quarter's data. The results show an increase in fit, *R*-squared from .83 to .86, *F* value from 12.4 to 14.2. The effect of patient satisfaction remains negative but is no longer significant. The significance of the other variables did not change.)

Finally, I tested a simple, bivariate model using KP growth as the dependent variable and the rate advantage over its indemnity competitors



as the only independent variable. Results of this regression are presented in Column 3 of Table 2. This simple model still has a great deal of predictive value. The adjusted  $R$ -squared is .80, with an  $F$  value of 56.9 ( $p < .0001$ ). A partial  $F$ -test shows that the simple bivariate model is preferable to the model that uses all the variables ( $p < .05$ ). It should also be noted that in this model, the  $y$ -axis intercept is  $-10,255$ , indicating that if KP and its indemnity competitors had had the same price for patient enrollment, KP would have lost 10,255 patients per quarter. This confirms the impression that patients respond to factors in addition to price when selecting a health plan.

In time series analyses, it is important to rule out correlated error over time before the conclusions of ordinary least squares can be accepted. Accordingly, a Durbin-Watson coefficient was calculated for the residuals of each of the above regression models. In every case, the calculated Durbin-Watson coefficient was greater than the appropriate D-upper limit, indicating that the results of the regressions are not affected by correlated error over time.

## DISCUSSION

Organization theories predict problems in the provision of services to customers in large organizations (Czepiel, Solomon, & Suprenant, 1980). KP and other large HMOs have traditionally had problems with patient satisfaction in primary care areas. Controlled studies have shown lower satisfaction with the care received in HMOs compared to the traditional fee-for-service medical community (Davies, Ware, Brook, Peterson, & Newhouse, 1986; Luft, 1987; Rubin et al., 1993).

Responding to the threat of the loss of patients, the KP in Northern California instituted aggressive efforts to improve patient satisfaction. Although the results are limited by the availability of data for only a short period of time, this study suggests that despite those considerable efforts at improving service to its members, there was neither a demonstrable increase in patient satisfaction nor a significant effect of patient satisfaction on subsequent growth. Quite the contrary, this study suggests that the surge in health plan membership in the late 1980s actually led to a decrease in concurrent patient satisfaction. It suggests that factors external to KP explain much of its growth. Chief among these is the rate advantage that KP maintained over its competitors.



It is easy for members of a large organization to lose perspective on the relationship between the organization and the environment in which it exists. Perceived changes in organizational activity are easily attributed to prior changes in organization policy without appreciating the open systems (Scott, 1987) nature of organizations. Instead of being a result of intraorganization shifts, changes in outcomes can easily be the result of changes in the external organizational environment. It is always important for managers of managed care organizations as well as other types of organizations to be aware of changes in the organizational environment and the potential effects of those changes. A variety of factors external to KP and beyond the reach of KP managers appear to have affected KP's growth during the 1980s.

A principal weakness of this analysis is the method used to measure patient satisfaction. Using the data provided by KP staff in which the percentage of respondents answering *very satisfied* is reported, satisfaction averaged 51.5%, with little variation during the period of the study ( $SD = 1.40$ ). This was the actual measure used by Northern California KP management to track patient satisfaction at the various facilities, with no data reported about the number of patients answering *dissatisfied* or *very dissatisfied*. It is entirely possible that this measure does not accurately reflect changes in satisfaction. It has since been shown that satisfaction scales of this type have problems with skewness and low variance (Ware & Hays, 1988).

Alternatively, it is possible that these data do represent an accurate measurement of patient satisfaction. In this case, the low variation in the response would indicate that the changes made by management, such as shortening telephone waits and improving appointment availability, do not actually address the root causes of problems in patient satisfaction. The causes may rest more in the interpersonal aspects of obtaining care from a large organization and the difficulty in establishing an ongoing relationship with a personal physician, factors that may not have changed despite management's efforts (Barr, 1995).

It is certainly possible that a more sensitive indicator of patient satisfaction might have demonstrated an improvement following the changes instituted. Nonetheless, it seems that the changes in membership growth were principally related to wide and rapid fluctuations in the rates charged by traditional indemnity health insurance carriers. That these differences are not the result of KP's own rate-setting policy is suggested by the fairly stable relationship between KP rates and competing HMO rates. Had the rate differential between KP and indemnity carriers been the result of a

rapid lowering of KP rates, we would expect to see more variation in the KP-HMO rate differential and a relationship between that differential and KP growth. We do not.

To what extent is the success or failure of an organization the result of strategic choices made by organizational management? To what extent is it the result of changes in the external environment beyond the control of management? At least in this rather limited case, the result is fairly clear. In the perception of KP's management, the key to reversing the loss of health plan members was to improve service. Substantial organizational resources were invested to this end. The data presented here suggest that these efforts did not affect member satisfaction as measured and tracked by management and that the changes there were in member satisfaction had little effect on subsequent membership growth. This is not to suggest that KP managers are any different than managers of other organizations, either within or without the health care sector. It is simply to suggest that when management-initiated changes are associated with improvements with organizational performance, it is easy to attribute that improvement to the effects of management actions.

An important message from organizations theory is that organizational managers often have a hard time distinguishing cause and effect (March & Olsen, 1984). As summarized by Scott (1991), "Everything that happens is not necessarily intended . . . every outcome is not the result of a conscious decision process" (p. 179). It is common and natural for managers to look at changes in organizational procedures, to look at subsequent changes in organizational outcomes, and to conclude that the procedures caused the outcomes. As in the case studied here, such a conclusion often cannot be supported empirically.

What does it matter if cause and effect are misspecified by management? So long as the outcome was the one intended, why worry about precise cause-effect relationships? The answer deals with the way organizations learn (Leavitt & March, 1988). Future choices are guided by past actions. One tends to stick with options that worked in the past, or that at least appear to have worked. Reliance on old methods of response may reinforce the type of organizational inertia that can lead to organizational decline or failure (Hannan & Freeman, 1989). When again faced by declining enrollment in the 1990s, KP management had difficulty responding and KP experienced serious internal strain. Perhaps had they learned more about the root causes of patient satisfaction/dissatisfaction during the 1980s, the strain in the 1990s would have been less.

This study does not purport to have answered the broader theoretical question as to the relative importance of strategic action versus environmental change as causes of organizational success. It has demonstrated that, at least in one limited case, environment was very important. Organizational management seemed to follow the pattern of attributing change in organizational outcomes to changes in organizational strategy without empirical evidence of such a link. Perhaps those who support a market-based system of managed competition in health care will think carefully about the ability of health care managers to respond to market forces in ways that actually improve patient satisfaction or similar measures of the quality of patient care. This study suggests that when their ability to do so is constrained, the potential success of managed competition as a system of care may be limited.

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